

## Publication and Outreach Activities

### BOOKS AND BOOK-CHAPTERS PUBLISHED

#### Aerospace

1. Controlled Atomization: Needs and Challenges, Combustion Science and Technology: Recent Advances, Eds., pp. 291 - 306, 2009, Narosa Publications, New Delhi, A. K. Agarwal, A. Kushari, S. K. Aggarwal and A. K. Runchal.

#### Biological Science and Bio-engineering

2. Advanced Biomaterials: Fundamentals, Processing and Applications, John Wiley & Sons Inc. NJ, USA, 2009, Bikramjit Basu, Dharendra Katti and Ashok Kumar.
3. Macroporous Polymeric Materials: Production, Properties and Biotechnological/ Biomedical applications CRC Press, Taylor & Francis Group, Boca Raton, USA, 2010, Bo Mattiasson, Ashok Kumar & Igor Yu Galaev.
4. Design of supermacroporous biomaterials via gelation at sub-zero temperatures-Cryogelation. In: Advanced Biomaterials: Fundamentals, Processing and Applications (Bikramjit Basu, Dharendra Katti & Ashok Kumar, Eds.). John Wiley and sons Inc. (Hoboken, NJ), pp499-531, 2009, Plieva, F. M., Kumar, A., Galaev, I. Yu. and Mattiasson, B.
5. Biomaterial Application. In: Advanced Biomaterials: Fundamentals, Processing and Applications (Bikramjit Basu, Dharendra Katti & Ashok Kumar, Eds.). John Wiley and sons Inc. (Hoboken, NJ), pp535-550, 2009, Kumar, A., Srivastava, A. and Jain, E.
6. Cryogels as matrices for cell separations and cell cultivations. In: Macroporous Polymeric Materials: Production, Properties and Biotechnological/ Biomedical applications (Bo Mattiasson, Ashok Kumar & Igor Yu Galaev; Eds.). CRC Press, Taylor & Francis Group, Boca Raton, USA, pp363-404, 2010, Dainiak, M. B., Kumar, A., Galaev, I. Yu. and Mattiasson, B.
7. Macroporous Polymeric Scaffolds for Tissue Engineering Applications. In: Macroporous Polymeric Materials: Production, Properties and Biotechnological/ Biomedical applications (Bo Mattiasson, Ashok Kumar & Igor Yu Galaev; Eds.). CRC Press, Taylor & Francis Group, Boca Raton, USA, pp405-466, 2010, Kumar, A., Jain, E and Srivastava, A.

## Chemical

8. Multi-objective Genetic Algorithm and Simulated Annealing with the Jumping Gene Adaptations, in G. P. Rangaiah, Ed., *Multi-Objective Optimization: Techniques and Applications in Chemical Engineering*, World Scientific, Singapore, 2009, pp. 91 - 129, M. Ramteke and S. K. Gupta.
9. Molecular Modeling and Simulation: Can it help in the development of micro and nano devices, in S. Chakroborty, Ed., *Microfluidics and Microfabrication*, Springer, USA, 2009, Singh JK.
10. *Numerical Methods for Engineers*, New Age Intl. Publishers (earlier: Wiley Eastern, New Delhi), 1995, 407 pages. Second Edition, 2010, S.K. Gupta.
11. *Fluid Mechanics and Its Applications*, Wiley Eastern/New Age Intl. Pub., New Delhi, 1984, 532 pages. Second Edition, 2010, V. Gupta and S. K. Gupta.

## Civil

12. Estimation of flood affected areas using classification of satellite images of a major Indian River. In: KK Singh and A.K. Singh (eds), *Natural and Manmade Disasters: Vulnerability, Preparedness, and Mitigation*, MD Publications Pvt. Ltd., New Delhi, 2010, Satyanarayana, P., Jain, A., and Dikshit, O.
13. SI adaptation for Indian Readers of *Introduction to Environmental Engineering* by P. A. Vesilind, S. M. Morgan and L. G. Heine, 3<sup>rd</sup> Edition, Cenage Learning, Published, 2010, Gupta, Tarun.
14. *Response of Seismically Loaded Structures with Nonlinear SFSI- A Numerical Study*. VDM Verlag Dr. Müller Aktiengesellschaft & Co. KG, Saarbrücken, Germany, 2009 (ISBN: 978-3-639-12226-8), Rachowdhury, Prishati.
15. *Aerosols in the Atmosphere of Mars*, In Chapter 2, *Chemistry and Aerosols in the Atmospheres of Earth and Mars*, In S. A. Haider, V. Sheel, and S. Lal (eds.), *Modeling of Planetary Atmospheres*, Mcmillan Publishers India Ltd., p. 128-143, 2010, Tripathi, S. N. and Marykutty Michael.

## Computer Science & Engineering

16. Algorithmic aspects of sensor localization, In *Theoretical Aspects of Distributed Computing in Sensor Networks*, Editor: S. Nikolettseas and Jose Rolim, (to appear). Sajal K. Das, Jing Wang, R. K. Ghosh and Rupert Reiger.
17. Mobile agents for mobile services. In *Applications and Services for Mobile Systems*. Editors: Anup Kumar, and Bin Xie, Auerbach Publications, Taylor and Francis Group. (to appear). R. K. Ghosh.
18. Book chapter: *Classifying Polynomials and Identity Testing*, Book: *Current Trends in Science*, Publisher: Indian Academy of Sciences, Bangalore, Year: 2010, Authors: Manindra Agrawal and Ramprasad Saptharishi.

19. Image Management for Biological Data. Book chapter in Encyclopedia of Database Systems. Springer, 2009. Arnab Bhattacharya, Vebjorn Ljosa.
20. Story of a Discovery, in Science, Literature and Aesthetics, ed. Amiya Dev, Vol XV Part 3 of History of Science, Philosophy and Culture in Indian Civilization, Gen. ed. D.P. Chattopadhyaya, Centre for Studies in Civilizations, pp 25-42, 2009. Somenath Biswas.

#### Electrical

21. Intelligent systems and control, Oxford University Press, November 2009, Laxmidhar Behera and Indrani Kar.
22. A multizone doped high breakdown voltage lateral bipolar transistor on buried oxide thick step, Springer's Lecture Notes on Electrical Engineering, vol. 39, pp. 23-32, ISBN: 978-90-481-2311-7, 2009, S. A. Loan, S. Qureshi and S. S. K. Iyer.
23. Digital Communications and Signal Processing, Universities Press, Hyderabad, 2010, K. Vasudevan.

#### Industrial Management & Engineering

24. Services Marketing - People, technology, Strategy - Sixth Edition, Pearson, New Delhi, Christopher, L., Wirtz, J. and Chatetree, J.
25. Understanding Transformational Change Using 'Competing Value' Framework, In Integrating Spirituality an Organizational Leadership (ISBN: 9780230639089). Macmillan India Advance Research Series, New Delhi (2009). Sharadindu Pandey and RRK Sharma.
26. Implementing MIS in Organizations: Developing a Theoretical Framework and its Empirical Validation, in Recent Advances in Management and Information Security; Aurika Vaish, Pratika Mishra, A Vaish, P Dixit and MD Tiwari (Eds); ISBN: 978-81-8329-375-4; Shree Publishers and Distributors, New Delhi; 2010; pp. 370-377; Uma Nair S., RRK Sharma and Kripa Shanker.
27. A Digital Ecosystem Model for Competitive Agriculture, Page 232 to 241 in Knowledge Economy, The Indian Challenge, Sage Publications, Delhi 2009, ISBN 978-81-7829-909-9, J Chatterjee.
28. Strategy and Structure in the Knowledge Enterprise, in Knowledge Economy, The Indian Challenge, Sage Publications, Delhi 2009, ISBN 978-81-7829-909-9, pp 147-151, Arun P Sinha.

## Materials Science and Engineering

29. A Digital Advanced Biomaterials: Fundamentals, Processing and Applications; John Wiley & Sons, Inc., USA, published in September, 2009, B. Basu, D. Katti and Ashok Kumar.
30. Modeling of Steelmaking Processes, CRC Press, Boca Raton, Florida, USA, September 2009, D.Mazumdar and J.W.Evans.
31. Solution manual for Modeling of Steelmaking Processes, CRC Press, Boca Raton, Florida, USA, 2009, D.Mazumdar and J.W.Evans.
32. Chapter entitled 'Process innovation using mechanical activation of minerals and wastes' in the book 'Experimental and Theoretical Approaches to Modern Mechanochemistry', Eds. Mulas Gabricle and Delogue Francesco, Publ: Transworld Research Network, 2010, 255-272, Rakesh Kumar, Sanjay Kumar, T.C. Alex, S. Srikanth and S.P. Mehrotra.
33. Special Issue of the Journal of Microwave Power and Electromagnetic Energy (JMPEE): The two issues of JMPEE contain ~16 select papers presented at the 1<sup>st</sup> Global Congress on Microwave Energy Applications (GCEMA) held at Otsu Japan (Aug 4-8), 43, 1-2, 2009.Y. Nikawa, Y. Wada, S. Horikoshi, and A. Upadhyaya (Eds.).

## Book chapter:

34. Fundamentals of Biomaterials and Biocompatibility; published in Advanced Biomaterials: Fundamentals, Processing and Applications; Ed. B. Basu, D. Katti and Ashok Kumar, John Wiley & Sons, Inc., USA, September, 2009, pp 3-18, Shekhar Nath and Bikramjit Basu.
35. Designing Biomaterials for Hard Tissue Replacement, published in Advanced Biomaterials: Fundamentals, Processing and Applications; Ed. B. Basu, D. Katti and Ashok Kumar, John Wiley & Sons, Inc., USA, September, 2009, pp 53-100, Shekhar Nath and Bikramjit Basu.
36. Bulk nanoceramics and ceramic nanocomposites for structural applications; Chapter 8, pages 179-213, a book chapter in Handbook of Nanoceramics and Their Based Nanodevices; Volume 2 (Nanocomposites). Ed.: T. Y. Tseng and H. S. Nalwa; American Scientific Publishers, 25650, North Lewis Way, Stevenson Ranch, California 91381-1439, USA, 2009, Amartya Mukhopadhyay and Bikramjit Basu.

## Mechanical

37. Smart Material Based Micro-sensors and Actuators for Micromachining, Introduction to Micromaching, Narosa, 2010, 17.1-20, V.K. Jain.

38. Corona and Related Ignition Systems', Book chapter in the Handbook of Combustion, Vol 5, Wiely-VCH, in press, Das, M.K., and Thynell, S.T.
39. Evolution's Niche in Multi-Criterion Problem Solving. In A. Lewis, S. Mostaghim and M. Randall (eds.). *Biologically-inspired Optimisation Methods: Parallel Algorithms, Systems and Applications*. Studies in Computational Intelligence, 210. Heidelberg: Springer, pp. 1–21, 2009, Deb, K.
40. *Conduction and Radiation*, Narosa Publishers, (479 pages), February 2010, K. Muralidhar and J. Banerjee.

#### Humanities and Social Sciences

41. Changing Perspectives on Family Planning in India. In Sibnath Deb (ed.) *Reproductive Health Management*. Akansha Publishing House, New Delhi, 2009, A.K. Sharma.
42. Civics Curriculum and Textbooks. In Poonam Batra (ed.) *Social Science Learning in Schools: Perspective and Challenges* pp. 107-126. New Delhi:Sage, 2010, Amman Madan.
43. Judicious Succession and Judicial Religion: Internal Conflict and Legal Dispute in a Religious Reform Movement in India. In Bertram Turner and Thomas Kirsch (eds.) *Permutations of Order: Religion and Law as Contested Sovereignties*. London: Ashgate, 2009, Anindita Chakrabarti.
44. Initiation, Re-birth and the Emergent Congregation: An Analysis of the Svadhyaya Movement in Western India. In Christiane Brosius and Ute Hüsken (eds.) *Ritual Matters: Dynamic Dimensions in Practice*. London: Routledge, 2010, Anindita Chakrabarti.
45. The Co-eventual Verb in Hindi. In O.N. Koul (ed). *Indo Aryan Linguistics*. pp. 25-45. Mysore: CIIL Publications, 2010, Achla M. Raina.
46. *Communication in Perspective*. Amani International Publishers, Kiel-Germany (ISBN: 978-3-938054-30-7) 2010 ed., Braj Bhushan.
47. Cognitive artifacts and education for all: A concept at community service. In A. Tiwari (ed.) *Psychological perspectives on social issues and human development*. pp. 106-119 New Delhi: Concept Publishing Company, 2009, Braj Bhushan.
48. Sabbath's Complaint: Philip Roth's Black Comedy in Sabbath's Theater. In Ben Siegel and Jay Halio (ed.) *Playful and Serious: Philip Roth as a Comic Writer*, pp. 195-207, Newark: University of Delaware Press, 2010, G. Neelakantan.
49. Why a cultural psychology of trauma reaction and healing: The case of Kachchh earthquake. In K. K. Singh and A. K. Singh (eds.) *Natural and man made disasters: Vulnerability, preparedness and mitigation (Vol. 2)*, pp. 577-596. New Delhi: MD Publications, 2010, Kumar Ravi Priya.

50. India from Indira Gandhi's Emergency. In David P. Forsythe (ed.) *Encyclopedia of Human Rights* (Vol. 3), pp. 5-16. New York: Oxford University Press, Munmun Jha.
51. The Pilgrim's Progress: Ayemenem House and the Syrian Christian Church in Kerala, India. In Darren J. N. Middleton (ed.) *Mother Tongue Theologies: Poets, Novelists, Non-western Christianity*. Oregon: Pickwick, 2009, Mini Chandran.
52. Understanding Community Health Intervention. In A. Shukla (ed.). *Culture, Cognition and Behaviour*, pp. 294-311. New Delhi: Concept, 2009, Shikha Dixit.
53. South Asian Integration Process and Asian Regionalism. In BOAO Report 2009, Joint Publication of the Boao forum, China and Asian Development Bank, Manila. 2010, Somesh K. Mathur.
54. Culture and Disributive Justice. In Girishwar Misra (ed.). *Handbook of Psychology*. New Delhi: Oxford University Press, 2010 in press, Lilavati Krishnan.
55. Towards a Self-Reliant Indian Consumer: Problems in Perspective. In K. N. Bhatt, Suresh Misra and Sapna Chadah (eds.) *Consumers, Consumerism and Consumer Protection: Indian Context*, pp. 51-60. Delhi: Abhijeet Publications, 2010, T. Ravichandran.
56. Consumerism and the Liability Rules: Economics Perspective. In K.N. Bhatt, Suresh Misra, and Sapna Chadah (eds.) *Consumers, Consumerism, and Consumer Protection*, pp. 61-78. Delhi: Abhijeet Publications, 2010, P. Murali Prasad.

## Chemistry

57. Transition Metal-Based Linear Chain Compounds, in *Macromolecules Containing Metal and Metal-Like Elements*, Vol. 9, Ed. Alaa S. Abd-El-Aziz, Charles E. Carraher, Jr., Charles U. Pittman, Jr., and Martel Zeldin, John Wiley & Sons, Moumita Majumdar and Jitendra K. Bera.
58. Nanomaterials and devices: Processing and applications Nano PTFE polymer films as organic insulating barrier for tunneling magneto-resistive Fe/PTFE/Fe, *Trans. Tech Publications*, page 13, 2009, Eds. S. Ray, S.K. Nath, A. Kumar, R.C. Agarwala, V. Agarwala, G.P. Chaudari, and B.S.S. Daniel, S.Sundar Manoharan and Vimlesh Chandra.
59. Understanding nanostructures in Mathematical and Chemical Physics, edited by Jayalakshmi Venketesan et al, Narosa Publishers, 2009, S. Sundar Manoharan.

Mathematics and Statistics

60. Statistical Analysis of Designed Experiments, Publisher Springer, 2010, H. Toutenburg and Shalabh.

Physics

61. Engineering Mechanics, Cengage Learning, India-2009, M.K. Harbola.

## JOURNAL PAPERS

## Aerospace

1. Influence of dynamic stall and dynamic wake effects on helicopter trim and rotor loads, *Journal of the American Helicopter Society*, Vol. 54, No. 3, July 2009, Laxman, V. and Venkatesan, C.
2. Formulation of a computational aeroelastic model to predict trim and response of a helicopter rotor system, *Journal of Aerospace Sciences and Technologies*, Vol. 61, No. 3, Aug. 2009, Laxman, V. and Venkatesan, C.
3. Wind tunnel study of a Grid fin stabilized guided projectile, *Journal of Aeronautical Society of India*, August 2009, Misra A, Singhal A, Ghosh A.K. and Ghosh K.
4. Modeling of Externally Mixed Air-blast Atomizer, *International Journal of Dynamics of Fluids*, Vol. 6, No. 1, 2010, pp. 25-40, Suresh Lal, A. Kushari, J. C. Kapoor, S. Maji.
5. Suppression of Diffusion Flame in Cup Burner Apparatus, *International Journal of Applied Engineering Research*, Vol. 4, No. 12, 2009, pp. 2573-2586, Suresh Lal, J.C Kapoor, A Kushari, S. Maji.
6. Experimental Study of Pressure Fluctuations and Flow Perturbations in Air flow through Vibrating Pipes, *Journal of Sound and Vibration*, Vol. 328, 2009, pp. 441-455, K. Bagchi, S. K Gupta, A. Kushari, N. G. R. Iyengar.
7. Vortex Combustion in a low aspect ratio dump combustor with tapered exit, *Energy Conversion and Management*, Vol. 50, 2009, pp. 2983-2991, N. P. Yadav and Abhihit Kushari.
8. Pressure Fluctuations in the Flow through a Low Aspect Ratio Dump Combustor with Tapered Exit, *International Journal of Fluid Mechanics Research*, Vol. 36, 2009, pp. 513-523, S. Karmakar and A. Kushari.
9. Anomalies of the flow over projectiles with wrap around fins, *Defence Science Journal*, Vol. 59(5), 2009, pp. 471-484, R. Krishna, R. Surit, A. Kushari and A. K. Ghosh.
10. Visualization of recirculation in low aspect ratio dump combustor, *Journal of Flow Visualization and Image Processing*, Vol. 16(2), 2009, pp. 127-136, N. P. Yadav and A. Kushari.
11. The Effect of Charge Density on Electro-Sprayed Droplets, *The Open Applied Physics Journal*, Vol. 2, 2009, pp. 53-57, Srikanth, J. Karnawat and A. Kushari.
12. Macroscopic Flow Behavior in a Low Aspect Ratio Dump Combustor with Tapered Exit, *International Journal of Turbo and Jet Engines*, Vol. 26(1), 2009, pp 19-31, S. Nigam, D. Ahmed and A. Kushari.
13. Combustion Oscillations in Bluff body stabilized Diffusion Flames with Variable Length Inlet, *ASME Journal of Engineering for Gas Turbine and*



- Power, Vol. 131, 2009, 054501-1 - 054501-4, M. Madanmohan, S. Pandey, A. Kushari and K. Ramamurthi.
14. Under Review: A hybrid experimental/numerical approach to characterize interfacial adhesion in multilayer thin low-k film specimens, *Thin Solid Films*, R. Kitey, P.H. Geubelle, N. R. Sottos.
  15. Experimental Study of N<sub>2</sub> Dilution on Bluff-Body Stabilized LPG Jet Diffusion Flame with Preheated Reactant, *Combustion, Explosion, and Shock Waves*, Vol. 45, No. 1, p. 1-7, 2009, D. P. Mishra and P. Kumar.
  16. Experimental Studies of the Bluff-body Stabilized Diffusion Flames, *Fuel*, 88, 573-578, 2009, P. Mishra and Kiran Kumar D. Y.
  17. Effect of Varying Gas-Flow Conditions on the Characteristics of the Diffusion Flame and Silica Powders Prepared using Flame Combustion Synthesis, *Journal of Powder Technology*, 191, 164-169, 2009, S Panda, A Uppadhaya, D. P. Mishra.
  18. Study of Downward Smoldering of Combustion in Polyurethane Foams, *Archivum Combustionis*, V 29, No. 3-4, 73-80, 2009, P. Mishra and A Verma.
  19. An Experimental Study of Flame Spread over an Inclined Thin Fuel Surface, *Archivum Combustionis*, V 29, No. 3-4, 101-110, 2009, P. Mishra and Maheshwari M.
  20. Numerical Investigation of Direct Fuel Injection from the Cavity Walls in 2D Supersonic Combustor, *International Journal of Turbo & Jet Engines*, 26, 155-168, 2009, K. V. Sridhar and D P Mishra.
  21. Diffusion Flame synthesis of Hollow, Anatase TiO<sub>2</sub> Nanoparticles, *Materials Science and Engineering: B*, V 163, Issue 2, 128-133, 2009, N.S. Karan, A. Agrawal, P.K. Pandey, P. Smitha, S.J. Sharma, D.P. Mishra, N.S. Gajbhiye.
  22. Experimental study of bluff-body stabilized LPG-H<sub>2</sub> jet diffusion flame with preheated reactant Fuel, V 89, p.212-218, 2009, D P Mishra and P Kumar.
  23. Flame Aerosol Synthesis And Characterization of Pure And Carbon Coated Titania Nano Powder, *Journal of Aerosol Sciences*, V 40, 720-730, 2009, Ashok Kumar, Ashok Kumar, D. P. Mishra, and Jitendra Kumar.
  24. A Review of Recent Patents on Micro-combustion and Applications Recent Patents on Engineering, V3, No.3, Pp. 194-209, 2009, S. Y. Jejurkar and D. P. Mishra.
  25. Numerical Analysis of Fuel-Air Mixing in a 2D Trapped Vortex Combustor, *Proc. IMechE, Part G: J. Aerospace Engineering*, 224(G1), 65-75, 2009, D P Mishra and R Sundharsan.
  26. Stability and Emission in a LPG-Air Premixed Coaxial Jet Flame Burner under a Wide Range of Operating Condition *International Journal of Chemical Reactor Engineering*, Vol. 7: P. 64, 2009, D P Mishra.
  27. Wind Tunnel Study of a Grid Fin Stabilized Guided Projectile, *Journal of Aeronautical Society of India*, August, 2009, Misra A., Singhal A., Ghosh A.K., Kunal Ghosh.

28. Power Control Device and Storm Security for Savonius Rotor, Wind Engineering, Journal published by British Wind Energy Association & European Wind Energy Association, Vol. 33, No. 5, December 2009, K.K.Bharadwaj, Alok Kumar, Sarfaraz Ahmad & Swati Saxena, Kunal Ghosh.

#### Biological Science and Bio-engineering

29. Deciphering the Catalytic Machinery in 30S Ribosome Assembly GTPase YqeH. PloS ONE (2010), 5(4): e9944, Baskaran Anand, Parag Surana and Balaji Prakash<sup>§</sup>.
30. The N-terminal region of protein kinase G from Mycobacterium tuberculosis plays a regulatory role in modulating kinase activity and survival in the host macrophages Journal of Biological Chemistry (2009) 284, 27467-79, Divya Tiwari, Rajnish Kumar Singh, Kasturi Goswami, Sunil Kumar Verma, Balaji Prakash and Vinay Kumar Nandicoori.
31. Circularly permuted GTPase YqeH binds 30S ribosomal subunit: Implications for its role in ribosome assembly, Biochem. Biophys. Res. Commun. (2009), 386, 602–606, Baskaran Anand; Parag Surana; Sagar Bhogaraju; Sushmita Pahari and Balaji Prakash<sup>§</sup>.
32. Crystal structure of N-acetylglucosamine-1-phosphate uridylyltransferase (GlmU) from Mycobacterium tuberculosis in a cubic space group, Acta Crystallographica. Section F. (2009) Struct Biol Cryst Commun. 2009, 65: 435–439,  
Sunil Kumar Verma, Mamta Jaiswal, Neeraj Kumar, Amit Parikh, Vinay Kumar Nandicoori, Balaji Prakash<sup>§</sup>.
33. Distinct GTP/GDP bound states of the tandem G-domains of Escherichia Coli EngA regulate ribosome binding, Nucleic Acids Research (2009) 37(7):2359-70, Sushil Kumar Tomar, Neha Dhimole, Moon Chatterji and Balaji Prakash<sup>§</sup>.
34. The Significance of ExDD and RxKD Motifs Conservation in Rel Proteins Journal of Biological Chemistry (2009), 284, 9115-9123, Mathew Sajish, Sissy Kalayil, Sunil Kumar Verma, Vinay Kumar Nandicoori and Balaji Prakash<sup>§</sup>.
35. E.coli HflX interacts with 50S ribosomal subunits in presence of nucleotides. Biochem. Biophys. Res. Commun. (2009), 379, 201-5, Nikhil Jain, Neha Dhimole, Abu Rafay Khan, Debojyoti De, Sushil Kumar, Tomar, Mathew Sajish, Dipak Dutta, Pradeep Parrack and Balaji Prakash<sup>§</sup>.
36. PknB mediated phosphorylation of a novel substrate, N-acetylglucosamine-1-phosphate uridylyltransferase (GlmU), modulates its acetyltransferase activity, Journal of Molecular Biology. (2009), 386, 451-64, Amit Parikh<sup>\*</sup>, Sunil Kumar Verma<sup>\*</sup>, Shazia Khan, Balaji Prakash<sup>§</sup> & Vinay Kumar Nandicoori<sup>§</sup>.
37. End-to-end and end-to-middle inter-helical interactions: New classes of interacting helix pairs in protein structures, Acta Crystallographica D

- Biological Crystallography D65, 1032-1041, 2009, T. K. Ghosh, S. K. Chaitanya and R. Sankararamakrishnan.
38. Genome-wide analysis of major intrinsic proteins in the tree plant *Populus trichocarpa*: Characterization of XIP subfamily of aquaporins from evolutionary perspective, *BMC Plant Biol.* 9, Article no. 134 (28 pages), 2009, A. B. Gupta and R. Sankararamakrishnan.
  39. Force field dependence of phospholipid headgroup and acyl Chain properties: Comparative molecular dynamics simulations of DMPC bilayers, *J. Comp. Chem.* 31, 266-277, 2010, P. Prakash and R. Sankararamakrishnan.
  40. Quantum chemical investigations on intra-residue carbonyl-carbonyl contacts in aspartates of high-resolution protein structures, *J. Phys. Chem. B* 114, 1038-1049, 2010, T. K. Pal and R. Sankararamakrishnan.
  41. Identification of core structural residues in sequentially diverse and structurally homologous Bcl-2 family of proteins, *Biochemistry* 49, 2574-2584, 2010, D. Lama and R. Sankararamakrishnan.
  42. Hyperphosphorylation and aggregation of tau in laforin deficient mice, an animal model for Lafora disease, *Journal of Biological Chemistry* 2009, 284 (34), 22657-22663, R. Puri, T. Suzuki, K. Yamakawa, and S. Ganesh.
  43. Satellite III non-coding RNAs show distinct and stress-specific patterns of induction, *Biochemical and Biophysical Research Communications* 2009, 382 (1), 102-107. S. Sengupta, R. Parihar, and S. Ganesh.
  44. Lafora progressive myoclonus epilepsy: A meta-analysis of reported mutations in the first decade following the discovery of EPM2A and NHLRC1 genes, *Human Mutation*, 2009, 30 (5), 715-723, S. Singh, and S. Ganesh.
  45. Improved Bio-catalytic Conversion for Increased Solvent Production using Immobilized Cryogel Beads, *Enzyme and Microbial Technology*, 2010, Tripathi, A., Sami, H., Jain, S. R., Vilorio-Cols, M. E., Zhuravleva N., Nilsson, G., Jungvid, H. and Kumar, A.
  46. Stability of Responsive polymer-protein bioconjugates, *Progress in polymer science* 35(4), 459-486, Shakya, A. K., Sami, H., Srivastava, A. and Kumar, A.
  47. Evaluation of boronate-containing polymer brushes and gels as substrates for carbohydrate-mediated adhesion and cultivation of animal cells, *Colloids and Surfaces B: Biointerfaces* 75, 510-519, Ivanov, A. E., Kumar, A., Nilsong, S., Aguilar, M-R., Lyubov I. Mikhalovska, Savina, L. I., I. N., Marina, I. N., Kuzimenkova, M. V., Galaev, I. Yu. and Mattiasson, B.
  48. An overview on cryogel polymeric scaffolds with special approach to cartilage tissue engineering, *European Cells and Materials Suppl.* 18(2), 46, 2009, Bhat, S., Singh, D., Shakesheff, K. and Kumar, A.
  49. Physical and cytocompatibility properties of bioactive glass-polyvinyl alcohol-sodium alginate biocomposite foams prepared via solgel processing for trabecular bone regeneration, *J Mater Sci: Mater Med*; Mishra, R., Basu, B., and Kumar, A.

50. Elastic and macroporous agarose-gelatin cryogels with isotropic and anisotropic porosity for tissue engineering, *J Biomedical Material Research*. 90 A (3), 680-694, Tripathi, A., Kathuria, N. and Kumar, A.
51. Synthesis and Characterization of Elastic and Macroporous Chitosan-Gelatin Cryogels for Tissue Engineering, *Acta Biomaterialia*. 5, 406-418, Kathuria, N., Tripathi, A., Kar, K. K. and Kumar, A.
52. Boronate-containing polymer brushes: characterization, interaction with saccharides and mammalian cancer cells, *J. Biomed. Material Research: A*. 213-225, Ivanov, A. E., Eccles, J., Panahi, H. A., Kumar, A., Kuzimenkova, M. V., Nilsson, L., Bergensthl, B., Long, N., Gary J. Phillips, G. J., Mikhalovsky, S. V., Igor Yu. Galaev, I. Yu. and Mattiasson, B.
53. Synthesis and Characterization of novel biocompatible poly(N-vinylcaprolactam) cryogel scaffold, *J Biomaterial Science: Polymer Edn* 20(10), 1393-1415, Srivastava, A., and Kumar, A.
54. Synthesis and characterization of polyacrylonitrile and interpenetrating network of polyacrylamide and chitosan supermacroporous cryogels as scaffolds for cell immobilization, *J of Biomaterial Science: Polymer Ed.* 20, 877-902, Jain, E., and Kumar, A.
55. Effects of clonidine and sumatriptan on postprandial gastric volume response, antral contraction waves and emptying: an MRI stud, *Neurogastroenterology & Motility*, 2009 Sep; 21(9):928-e71. Epub 2009 Apr 22. M. A. Kwiatek, M. R. Fox, A. Steingoetter, D. Menne, A. Pal, H. Fruehauf, E. Kaufman, Z. Forras-Kaufman, J. G. Brasseur, O. Goetze, G. S. Hebbard, P. Boesiger, M. Thumshirn, M. Fried, W. Schwizer.
56. C. elegans RNA-binding proteins PUF-8 and MEX-3 function redundantly to promote germline stem cell mitosis *Developmental Biology*, 326: 295-304, M. Ariz, M. Rana and K. Subramaniam.

## Chemical

57. Efficient computation of free energy of crystal phases due to external potentials by error-biased Bennett acceptance ratio method, *Journal Of Chemical Physics*, 132(8), 2010, 084101, P. A. Apte.
58. Membrane contactor as degasser operated under vacuum for ammonia removal from water: A numerical simulation of mass transfer under laminar flow conditions, *Computers And Chemical Engineering*, 33(6), 2009, 1123-1131, A. Mandowara and P. K. Bhattacharya.
59. Mixed convection heat transfer from a cylinder in power-law fluids: Effect of aiding buoyancy, *Industrial & Engineering Chemistry Research*, 48(21), 2009, 9735-9754, A. T. Srinivas, R. P. Bharti and R. P. Chhabra.

60. Two dimensional unsteady laminar flow of a power law fluid across a square cylinder, *Journal Of Non-Newtonian Fluid Mechanics*, 160(2-3), 2009, 157-167, A. K. Sahu, R. P. Chhabra and V. Eswaran.
61. Two dimensional unsteady flow of power law fluids over a square cylinder, *Chemical Engineering Science*, 64(12), 2009, 2978-2999, V. K. Patnana, R. P. Bharti and R. P. Chhabra.
62. Wall effects on a sphere falling in quiescent power law fluids in cylindrical tubes, *Industrial & Engineering Chemistry Research*, 48(12), 2009, 5845-5856, D. Song, R. K. Gupta and R. P. Chhabra.
63. Flow of power-law liquids past a solid sphere with and without radial mass flux at moderate Reynolds numbers, *Journal Of Chemical Engineering Of Japan*, 42(8), 2009, 545-554, N. Kishore, V. K. Patnana and R. P. Chhabra.
64. Flow of Newtonian and power-law fluids in tube bundles, *Canadian Journal Of Chemical Engineering*, 87(5), 2009, 646-648, U. K. Singh and R. P. Chhabra.
65. Forced convection heat transfer from a heated square cylinder to power-law fluids in the unsteady flow regime, *Numerical Heat Transfer, Part A- Applications*, 56(2), 2009, 109-131, A. K. Sahu, R. P. Chhabra and V. Eswaran.
66. Mixed convection from a circular cylinder to power law fluids, *Industrial & Engineering Chemistry Research*, 48(17), 2009, 8219-8231, A.A. Soares, J. Anacleto, L. Caramelo, J.M. Ferraira and R.P. Chhabra.
67. Momentum and heat transfer phenomena for power-law liquids in assemblages of solid spheres of moderate to large void fractions, *Numerical Heat Transfer, Part A- Applications*, 56(12), 2009, 970-986, N. Kishore, S. D. Dhole, R. P. Chhabra and V. Eswaran.
68. Development length requirements for fully-developed pipe flow of yield stress fluids, *J. Fluids Engineering (Transactions Of The ASME)*, 132(3), 2010, 034501-1 to 034501-4, R. J. Poole and R. P. Chhabra.
69. An experimental study of non-Newtonian fluid flow in rectangular flumes in laminar, transition and turbulent flow regimes, *Journal Of The South African Institution Of Civil Engineering*, 52, 2010, 11-19, R. Haldenwang, P. T. Slatter and R. P. Chhabra.
70. Adsorption and ODH reaction of alkane on sol-gel synthesized TiO<sub>2</sub>-WO<sub>3</sub> supported vanadium oxide catalysts: In situ DRIFT and structure-reactivity study, *Journal Of Molecular Catalysis A-Chemical*, 308(1-2), 2009, 46-55, D. Shee and G. Deo.
71. Electric-field and contact-force induced tunable patterns in slipping soft elastic films, *Europhysics Letters*, 89(3), 2010, 36002, D. Bandyopadhyay, A. Sharma and V. Shankar.
72. Photoresist derived electrospun carbon nanofibers with tunable morphology and surface properties, *Industrial & Engineering Chemistry Research*, 49(6), 2010, 2731-2739, C. S. Sharma, R. Vasita, D.K. Upadhyay, A. Sharma, D. Katti and R. Venkataraghavan.

73. Self-organized microstructures in thin bilayers on chemically patterned substrates, *Journal Of Physical Chemistry C*, 114(5), 2010, 2237-2247, D. Bandyopadhyay and A. Sharma.
74. Multiscale carbon structures fabricated by direct micro-patterning of electrospun mats of SU-8 photoresist nanofibers, *Langmuir*, 26(4), 2010, 2218-2222, C.S. Sharma, A. Sharma and M. Madou.
75. Scientific innovation and creativity: some case studies in new process and product development, *Indian Chemical Engineer* 51, (2009), 163, A. Sharma.
76. Controlling the morphology of resorcinol-formaldehyde based carbon xerogels by sol concentration, shearing and surfactants, *Industrial & Engineering Chemistry Research*, 48(19), 2009, 8030-8036, C.S. Sharma, D.K. Upadhyay and A. Sharma.
77. Electric field induced patterns in soft visco-elastic films: from long waves of viscous liquids to short waves of elastic solids, *Physical Review Letters*, 102(25), 2009, 254502, N. Arun, A. Sharma, P.S.G. Pattader, I. Banerjee, H. M. Dixit and K. S. Narayan.
78. Electric field induced interfacial instabilities and morphologies of thin viscous and elastic bilayers, *Langmuir*, 25(16), 2009, 9108-9118. D. Bandyopadhyay, A. Sharma, U. Thiele and P. D. S. Reddy.
79. Solvent vapor assisted imprinting of polymer films coated on curved surfaces with flexible PVA stamps, *Industrial & Engineering Chemistry Research*, 48(19), 2009, 8812-8818, R. Mukherjee, G. K. Patil and A. Sharma.
80. Computational investigation on bubble detachment from submerged orifice in quiescent liquid under normal and reduced gravity, *Physics Of Fluids*, 21(6), 2009, 062103, I. Chakraborty, B. Ray, G. Biswas, F. Durst, A. Sharma and P. Ghoshdastidar.
81. Resorcinol-formaldehyde based carbon nanospheres by electrospraying, *Bulletin Of Material Science*, 32(3), 2009, 239-246, C.S. Sharma, S. Patil, S. Saurabh, A. Sharma and R. Venkataraghavan.
82. Synthesis of carbon xerogel particles and fractal-like structures, *Chemical Engineering Science*, 64(7), 2009, 1536-1543, C. S. Sharma, M. M. Kulkarni, A. Sharma and M. Madou.
83. Influence of electric field on saturated film boiling, *Physics Of Fluids*, 21(3), 2009, 032107, G. Tomar, G. Biswas, A. Sharma, and S.W.J. Welch.
84. Self-assembly of a two-dimensional Au-nanocluster superlattice and its photoluminescence spectra, *Journal Of Nanoscience And Nanotech*, 9(1), 2009, 190-194, S. Chattopadhyay, R. Mukherjee, A. Datta, A. Saha, A. Sharma and G.U. Kulkarni.
85. Pressure-driven diffusive gas flow in micro-channels: from the Knudsen to the continuum regimes, *Microfluidics And Nanofluidics*, 6(5), 2009, 679-692, N. Dongari, A. Sharma and F. Durst.

86. High pressure pyrolysis of n-heptane, *Journal Of Analytical And Applied Pyrolysis*, 86(1), 2009, 44-52, J.P.Chakraborty and D.Kunzru.
87. Washcoating of  $\gamma$ -alumina on stainless steel microchannels, *Catalysis Today*, 147, 2009, S17-S23, N.R.Peela, A.Mubayi and D.Kunzru.
88. Effect of gas and liquid superficial velocities on the performance of monolithic reactors, *Industrial & Engineering Chemistry Research*, 49(4), 2010, 1631-1641, A.K.Mogalicherla and D.Kunzru.
89. Development of Surface Functionalized Activated Carbon Fiber for Control of NO and Particulate Matter, *Journal Of Hazardous Materials*, 173(1-3), 2010, 211-222, R. Rathore, D. Srivastava, A.K. Agarwal, and N. Verma.
90. Adsorptive Removal of Fluoride by Micro-Nano Hierarchical Web of Activated Carbon Fibers, *Industrial & Engineering Chemistry Research*, 48(21), 2009, 9697-9707, A. Gupta, D. Deva, A. Sharma and N. Verma.
91. Lattice Boltzmann methods for simulation of micro and macro transport in a packed bed of porous adsorbents under non-isothermal condition, *Computers And Mathematics With Applications*, 58(5), 2009, 1003-1014, N. Verma and D. Mewes.
92. Quasi-2D and prewetting transition of square-well fluids on a square-well substrate, *Molecular Physics*, 107(20), 2009, 2189-2200, A.K. Saha, S.P. Singh, J.K. Singh, and SK Kwak.
93. Vapor-Liquid Phase Coexistence, Critical Properties, and Surface Tension of Confined Alkanes, *Journal Of Physical Chemistry C*, 113(17), 2009, 7170-7180, S.K. Singh, A. Sinha, G. Deo and J.K. Singh.
94. Virial coefficients of hard-core attractive Yukawa fluids, *Fluid Phase Equilibria*, 285(1-2), 2009, 36-43, D.J. Naresh and J.K. Singh.
95. Surface tension and vapor-liquid phase coexistence of variable range hard-core attractive Yukawa fluids, *Molecular Simulation*, 35(10-11), 2009, 880-887, JK Singh.
96. Virial coefficients and inversion curve of simple and associating fluids, *Fluid Phase Equilibria*, 279(1), 2009, 47-55, D.J. Naresh and J.K. Singh.
97. Vapor-liquid and interfacial properties of square-well fluids in slit pores, *Journal Of Chemical Physics*, 130(21), 2009, 214707, S. Jana, JK Singh and SK Kwak.
98. Characterization of fluid-solid phase transition of hard sphere fluids in cylindrical pore via molecular dynamics simulation, *Journal Of Chemical Physics*, 130(16), 2009, 164511, H.C. Huang, S.K. Kwak and J.K. Singh.
99. Axial segregation in horizontally vibrated granular materials: A numerical study, *Korean Journal Of Civil Engineering*, 13, 2009, 289-294, A. Bhateja, JK Singh, and I Sharma.
100. Aminosilane densities in nanotextured silicon, *Journal Of Material Science And Engineering C*, 29(8), 2009, 2340-2345, N. Rathor and S. Panda.

101. Ageing under oscillatory stress: role of energy barrier distribution in thixotropic materials, *Chemical Engineering Science*, 64(22), 2009, 4668-4674, A. Shukla and Y.M. Joshi.
102. Tensile deformation and failure of thin films of aging laponite suspension, *Industrial & Engineering Chemistry Research*, 48(17), 2009, 8211-8218, A. Shaikat, Y.M. Joshi and A. Sharma.
103. Modeling dependence of creep recovery behavior on relaxation time distribution of ageing colloidal suspensions, *Industrial & Engineering Chemistry Research*, 48(17), 2009, 8211-8218, Y. M. Joshi.
104. Irreversible aging dynamics and generic phase behavior of aqueous suspensions of laponite, *Langmuir*, 26(6), 2010, 4219-4225, A. Shahin and Y. M. Joshi.
105. Effect of temperature on aging and time-temperature superposition in nonergodic laponite suspensions, *Soft Matter*, 5, (2009), 4991, V. Awasthi and Y. M. Joshi.
106. Optimal Synthesis of an Industrial Fluorspar Beneficiation Plant using a Jumping Gene Adaptation of Genetic Algorithm, *Minerals & Metallurgical Processing*, 26, (2009), 174-190, C. Guria, M. Varma, S.K. Gupta and S.P. Mehrotra.
107. Incipient Bubble Formation during Bulk Polymerization of Methyl Methacrylate under Near-Isothermal Conditions using a Ribbon Agitator, *Polymer Engineering And Science*, 49(5), 2009, 930-936, G.J. Singh and S.K. Gupta.
108. Incipient stable bubble formation during bulk polymerization of methyl methacrylate under near-isothermal conditions II. Use of an anchor agitator, *Polymer Engineering And Science*, 49(12), 2009, 2309-2314, G.J. Singh and S.K. Gupta.
109. Biomimetic adaptation of the evolutionary algorithm, NSGA-II-aJG, using the biogenetic law of embryology for intelligent optimization, *Industrial & Engineering Chemistry Research*, 48(17), 2009, 8054-8067, M. Ramteke and S. K. Gupta.
110. Biomimicking altruistic behavior of honey bees in multi-objective genetic algorithm, *Industrial & Engineering Chemistry Research*, 48, (2009), 9671-9685, M. Ramteke and S. K. Gupta.
111. Peeling off an adhesive layer with spatially varying modulus, *Physical Review E*, 81(2), 2010, 021603, A. Ghatak.
112. A bio-inspired wet/dry microfluidic adhesive for aqueous environments. *Langmuir*, 26(1), 2010, 521-525, A. Majumder, A. Sharma and A. Ghatak.
113. Optical and dynamic mechanical characterization of thin film polymer nanocomposites, *International Journal Of Modern Physics B*, 24(1-2), 2010, 57-63, B. Tripathi, K. Awasthi, V. Kulshrestha, A. Sharma, S. Agrawal, S. Kumar, S.S. Sharma, A Garg, M. Singh and Y.K. Vijay.



114. Plantwide control for throughput maximization: A case study, *Industrial & Engineering Chemistry Research*, 49(1), 2010, 210-221, R Kanodia and N. Kaistha.
115. PVT Correlations of Indian crude using support vector regression, *Energy & Fuels*, 23, 2009, 5483-5490, S. Dutta and J.P. Gupta.
116. Controllable optimized designs of an ideal reactive distillation system using genetic algorithm, *Chemical Engineering Science*, 64(23), 2009, 4929-4942, K.S. Babu, M.V.P. Kumar and N. Kaistha.
117. Runaway effects of nitric acid on methyl ethyl ketone peroxide by TAM III tests, *Journal Of Thermal Analysis And Calorimetry*, 96(3), 2009, 789-793, J.M. Tseng, M.-Y Liu, S.-L Chen, W.-T. Hwang, J.P. Gupta and C.M. Shu.
118. An efficient algorithm for rigorous dynamic simulation of reactive distillation columns, *Computers & Chemical Engineering*, 33(8), 2009, 1336-1343, M. Rahul, M.V.P. Kumar; D. Dwivedi and N. Kaistha.
119. Separation of dyes using composite carbon membranes, *Aiche Journal*, 55(7), 2009, 1712-1722, S. Sachdeva and A. Kumar.
120. Security Risk Assessment using Fuzzy Logic, *Journal Of Hazardous Materials*, 173(1-3), 2010, 258-264, S. Bajpai, A. Sachdeva and J.P. Gupta.

#### Civil

121. Determining reliability of an asphalt mix design: case of Marshall method, *Journal of Transportation Engineering*, ASCE Vol.136 (1), 2010, pp.31-37, Chakroborty, P., Das, A., and Ghosh, P.
122. Optimal proportioning for hot recycled mix design under Superpave mix design consideration, *Canadian Journal of Civil Engineering*, Vol.36(9), 2009, pp.1470-1477, Aravind, K. and Das, A.
123. Estimation of temperature stress and low-temperature crack spacing in asphalt pavements, *Journal of Transportation Engineering*, ASCE, Vol.135(10), 2009, pp.745-752, Rajbongshi, P. and Das, A.
124. Methods used for the development of neural networks for the prediction of water resources variables in river systems: Current status and future directions, *Env. Mod. Software*, 2010, Maier, H.R., Jain, A., Dandy, G.C., and Sudheer, K.P.
125. Dissection of trained neural network hydrologic model architectures for knowledge extraction, *Wat. Resour. Res*, 45, W07420, 2009, Jain, A. and Kumar, S.
126. River flow prediction using an integrated approach, *J. Hydrol. Engg.*, ASCE, 14(1), 75-83, 2009, Srinivasulu, S. and Jain, A.
127. Chemical Characterization of Submicron Aerosol in Kanpur Region: A Source Apportionment Study, *International Journal of Environmental Science and Engineering*, 1 (2), 87-90 (2009), Abhishek Chakraborty and Gupta, Tarun.

128. Particulates Emitted From Indoor Combustion Sources: Measurement of Size Distribution and Chemical Analysis, *Inhalation Toxicology*, 21 (10), 837-848 (2009), Anirban Roy, Sanjay Baxla, Gupta, Tarun, Rajdip Bandyopadhyaya, Sachchida Nand Tripathi.
129. Assessment of Personal Exposure to Indoor and Outdoor Particulate Matter for Residents of an Academic Campus (IIT-Kanpur), *Inhalation Toxicology*, 21 (14), 1208-1222 (2009), J. Jaidevi, Gupta, Tarun, Sachchida Nand Tripathi and Kamal Ujainwal.
130. Analysis of Diurnal and Seasonal Variation of Total Outdoor Aerosol Mass and Size Distribution in a Northern Indian City and its Correlation to Black Carbon, *Aerosol and Air Quality Research*, 9, 458-469 (2009), Sanjay Baxla, Anirban Roy, Gupta, Tarun, Sachchida Nand Tripathi and Rajdip Bandyopadhyaya.
131. Measurement of Number and Size Distribution of Particles Emitted from a Mid-Sized Transportation Multipoint Port Fuel Injection Gasoline Engine, Gupta, Tarun, Abhishek Kothari, Dhananjay Kumar Srivastava, Avinash Kumar Agarwal.
132. Performance Evaluation of a Nonlinear Winkler-based Shallow Foundation Model using Centrifuge Test Results, *Earthquake Engineering and Structural Dynamics*, John Wiley, Vol. 38, 2009, pp. 679-698, P. Raychowdhury and T. C. Hutchinson.
133. Effect of Soil Parameter Uncertainty on Seismic Demand of Low-rise Steel Buildings on Dense Silty Sand, *Soil Dynamics and Earthquake Engineering*, Elsevier, Vol. 29 (10), 2009, pp. 1367-1378, P. Raychowdhury.
134. Sensitivity of Shallow Foundation Response to Model Input Parameters, *Journal of Geotechnical and Geo-environmental Engineering*, ASCE, Vol. 136 (3), pp. 538-541, 2010, P. Raychowdhury and T. C. Hutchinson.
135. Application and Validation of Practical Tools for Nonlinear Soil-Foundation Interaction Analysis, *Earthquake Spectra*, Journal of the Earthquake Engineering Research Institute (EERI), Vol. 26 (1), pp. 111-129, 2010, S. Gajan, P. Raychowdhury, T. C. Hutchinson, B. L. Kutter, and J. P. Stewart.
136. Kosi Floods: Time of Retrospection. *Geography and You*, October, 2008, 38-39, 2008, Sinha, R.
137. The Great avulsion of Kosi on 18 August 2008. *Current Science*, VOL. 97, NO. 3, 429-433, 2009, Sinha, R.
138. Fluvial sequences as evidence for landscape and climatic evolution in the Late Cenozoic: a synthesis of data from IGCP 518, *Global and Planetary Change*, 68(4), 237-253, 2009, Westaway Rob, David R. Bridgland, R. Sinha, Tuncer Demir.
139. Climate control on erosion distribution over the Himalaya during the past ~100 ka. *Geology*, June 2009, 37(6), p. 559-562, 2009, Waliur Rahaman, Sunil K. Singh, Sinha, R. and S.K. Tandon.

140. Craton-derived alluvium as a major sediment source in the Himalayan Foreland Basin of India. *GSA Bulletin*; November/December 2009, v. 121, no. 11/12, p. 1596-1610, 2009, Sinha, R. Gibling M.R. and Y. Kettanah, S.K. Tandon, P.S. Bhattacharjee, and A.S. Dasgupta, P. Ghazanfari.
141. Climate-induced variability in the Late Pleistocene-Holocene fluvial and fluvio-deltaic successions in the Ganga plains, India. *Geomorphology* 113, p. 173-188, 2009, Sinha, R. and Sarkar, S.
142. Enhancement of Seismic Sustainability of Critical Structures through System Analysis, *Probabilistic Engineering Mechanics*, Vol. 25, pp. 235-244, 2010, Ray Chaudhuri, S., and Shinozuka, M.
143. Effects of Spatial Variation of Soil Properties on Seismic Performance of Port Structures. *Soil Dynamics and Earthquake Engineering*, Vol. 29, pp. 537- 545, 2009, Na, U. J., Ray Chaudhuri, S., and Shinozuka, M.
144. Spectral characterization of the stochastically simulated vehicle queue on Bridges. *Engineering with Computer*, Vol 25, pp.367-378, 2009, Mishra S. K., Ray Chaudhuri S., Chakraborty S., Frantziskonis G.
145. Analysis of diurnal and seasonal variation of submicron outdoor aerosol mass and size distribution in a northern Indian city and its correlation to black carbon, *Aerosol and Air Quality Research*, Vol no. 4, 2009, 458-469, Baxla, S. P., A. A. Roy, Tarun Gupta, S. N. Tripathi, and R. Bandyopadhyaya.
146. Development of a light scattering solver applicable to particles of arbitrary shape on the basis of the surface integral equations method of Muller-type (SIEM/M): Part 1. Methodology, accuracy of calculation, and electromagnetic current on the particle surface, *Applied Optics*, Vol. no. 48(19), 2009, 3526-3536, Nakajima, T., T. Nakajima, K. Yoshimori, S. K. Mishra, and S. N. Tripathi.
147. Retrieving the composition and concentration of aerosols over the Indo-Gangetic basin using CALIOP and AERONET data, *Geophys. Res. Lett.*, Vol. no. 36, 2009, L13806, Ganguly, D., P. Ginoux, V. Ramaswamy, D.M. Winker, B.N. Holben and S. N. Tripathi.
148. Assessment of personal exposure to inhalable indoor and outdoor particulate matter for student residents of an academic campus (IIT-Kanpur), *Inhalation Toxicology*, 2009, Jaidevi, J., T. Gupta, S. N. Tripathi, and K. Ujinwal.
149. Segmentation assisted classification for IKONOS imagery, *Journal of the Indian Society of Remote Sensing*, pp. 551-564, 2009, Dikshit, O. and Behl, V.
150. A new approach for finding an appropriate combination of texture parameters for classification, *Geocarto International*, April 2010, Pathak, V and Dikshit, O.

#### Computer Science & Engineering

151. A survey on sensor localization, *Journal of Control Theory and Application*, vol 8, no. February 2010, 2-11. Jing Wang, R. K. Ghosh, Sajal K. Das.

## Electrical

152. Direct model reference adaptive internal model controller for DFIG wind farms, *International Journal of Recent Trends in Engineering (Electrical & Electronics)*, Vol. 1, No. 3, June 2009, pp. 7-11, N Amuthan and SN Singh.
153. p-cycles: An overview, *IEEE Communication and tutorials*, Vol. 12, no. 1, 2010, Rachna Asthana, Y.N.Singh, Wayne D.Grover.
154. Effective market monitoring for surveillance of Indian electricity market, *International Journal of Energy Sector Management*, Vol. 3, No.3, 2009, pp. 275-292, P. Bajpai and SN Singh.
155. Method of determining the exciton diffusion length using optical interference effect in Schottky diode, *Applied Physics Letters*, Vol. 94, 2009, p. 223303, Suman Banerjee, Anukul Prasad Parhi, S. Sundar Kumar Iyer and Satyendra Kumar.
156. Nonlinear voter models: the transition from invasion to coexistence, *Eur. Phys. J. Part B*, Vol. 67, pp. 301-318, 2009, Laxmidhar Behera and Frank Schweitzer.
157. A wavelet-based denoising technique for improved monitoring and characterization of power quality, *Electric Power Components and Systems*, Vol. 37, No.7, July 2009, pp. 753-769, Umakant Dhar Dwivedi and SN Singh.
158. De-noising techniques with change-point approach for wavelet-based power quality monitoring, *IEEE Trans on Power Delivery*, Vol. 24, No. 3, July 2009, pp. 1719-1727, Umakant Dhar Dwivedi and SN Singh.
159. Enhanced detection of power quality events using intra and inter-scale dependencies of wavelet coefficients, *IEEE Trans on Power Delivery*, Vol. 25, No. 1, January 2010, pp. 358-366, Umakant Dhar Dwivedi and SN Singh.
160. A kinetic model of a PD pulse within narrow dielectric channels, *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 16, Issue 6, pp. 1743-1754, December 2009, Alireza A Ganjovi, Nandini Gupta, Gorur R Govinda Raju.
161. Donor-acceptor 9-uncapped fluorenes and fluorenonones as stable blue light emitters, *Organic Letters*, Vol.11, No.6, 1289-1292, 2009, Atul Goel, Sumit Chaurasia, Manish Dixit, Vijay Kumar, Sattey Prakash, Bijayalaxmi Jena, Jai K. Verma, Mayank Jain, R. S. Anand and S. Sundar.
162. Assessment of oscillatory stability constrained available transfer capability, *International Journal of Electrical Power and Energy Systems*, Vol. 31, June 2009, pp. 192-200, T Jain, SN Singh and SC Srivastava.
163. Selecting proper connection points for Y-capacitor to reduce EMI in SMPS, *ARPN Journal of Applied Sciences*, Vol. 5, No. 2, Feb. 2010 pp. 46-51, M. M. Jha, K. B. Naik, and S. P. Das.
164. Visual motor control of a 7 DOF robot manipulator using a fuzzy SOM network, *Intelligent Service Robotics*, Vol 3, No 1, pp 49-60, 2010, Indrani Kar and Laxmidhar Behera.

165. Direct adaptive neural control for affine nonlinear systems, *Applied Soft Computing*, Vol. 9, pp.756-764, 2009, Indrani Kar and Laxmidhar Behera.
166. Kinematic control of a redundant manipulator using inverse-forward adaptive scheme with a KSOM based hint generator, *Robotics and Autonomous Systems*, Volume 58, Issue 5, 31 May 2010, Pages 622-633, Swagat Kumar, Laxmidhar Behera, and TM McGinnity.
167. Visual motor control of a 7DOF redundant manipulator using redundancy preserving learning network, *Robotica*, (On line - Sept 2009), Swagat Kumar, Premkumar P., Ashish Dutta and Laxmidhar Behera.
168. A novel partial-ground-plane-based MOSFET on selective buried oxide: 2-D simulation study, *IEEE Transactions on Electron Devices*, Vol. 57, No. 3, March 2010, pp. 671-680, Sajad A. Loan, S.Qureshi and S.S.K Iyer.
169. A novel high breakdown voltage lateral bipolar transistor on SOI with multizone doping and multistep oxide, A numerical simulation study *Semiconductor Science and Technology*. Vol. 24, No. 2, 2009, 025017 (10pp), Sajad A Loan, S Qureshi and S S Kumar Iyer.
170. A novel nanoscaled lateral bipolar transistor on silicon on insulator, *International Journal of Nanomanufacturing (IJNM)* UK vol. 4, no. 1/2/3/4, pp. 42-50, 2009, Sajad A. Loan, S.Qureshi and S.S.K Iyer.
171. Dielectric spectroscopy measurements of epoxy resin with and without nanometric alumina fillers, *IEEE Transactions on Dielectrics and Electrical Insulation*, Vol. 16, Issue 5, pp. 1481-1488, October 2009, Parimal Maity, P K Poovamma, S Basu, V Parameswaran, Nandini Gupta.
172. A comparative study of poly(3-octylthiophene) and poly(3-hexylthiophene) solar cells blended with single walled carbon nanotubes, *Jp. J. Appl. Phys.*, vol. 48, pp. 011503 (6), 2009, Arun Tej Mallajosyula, S. Sundar Kumar Iyer, and Baquer Mazhari.
173. Characterization of a fiber optic liquid refractive index sensor, *Sensors and actuators B: Chemical (Elsevier)*, Vol.B145, 2009, pp.265-271, A Mukherjee, D Munsu, V Saxena, R Rajput, P Tewari, V Singh, A K Ghosh, J John, H Wanare, P Gupta-Bhaya.
174. Single-resolution and multiresolution extended-Kalman-filter-based reconstruction approaches to optical refraction tomography, *Applied Optics*, Vol. 49, Issue 6, pp. 986-1000, Feb 20, 2010, Naren Naik, R.M. Vasu and M. R. Ananthasayanam.
175. Reactive power cost allocation by using a value based approach, *IET Gen., Trans. & Dist.*, Vol. 3, No.9, September 2009, pp. 872-884, SK Parida, SN Singh, and S.C. Srivastava.
176. An approach to remote frequency regulation service in India, *International Journal of Energy Sector Management*, Vol. 4, No.1, 2010, SK Parida SN Singh and S.C. Srivastava.

177. Evolving adaptive wavelet neural network for short-term load forecasting in electricity markets, *International Journal of Emerging Power Systems*, Vol. 3, No. 1, Art no. 3, 2010, Naran M. Pindoriya and S.N. Singh.
178. An integrated approach for optimal frequency regulation service procurement in India, *Energy Policy*, Vol.37, Issue 8, August 2009, pp. 3020-3034, S.K. Parida, S.N. Singh, S.C. Srivastava, P. Chanda and A.K. Shukla.
179. Decentralized motion coordination for a formation of rovers, *IEEE Systems Journal*, Vol 3, No. 3, pp369-381, Sept 2009, Anjan Kumar Ray, Patrick Benavidez, Laxmidhar Behera, and Mo Jamshidi.
180. Generalized voltage collapse index for long transmission network, *Journal of Electric Power Science and Technology*, Vol.24, No.1, 2009, pp.30-37, BS Rapurohit, SN Singh and Fushuan Wen.
181. Dynamic response optimization of the synthetic ripple modulator for a point-of-load converter with adaptive voltage positioning, in *IEEE Proceedings on Compatibility and Power Electronics (CPE)*, Badajoz, Spain, pp. 402-405, May 2009, Santanu K. Mishra and Khai Ngo.
182. Design oriented analysis of modern active droop controlled power supplies, in *IEEE Tran. On Ind. Elect.*, vol. 56, pp. 3704-3708, Sept. 2009, Santanu K. Mishra.
183. Wind power interconnection into power system: A review on grid code requirements, *The Electricity Journal*, Vol. 22, Issue 5, June 2009, Bharat Singh and SN Singh.
184. Reactive capability limitation of doubly fed induction generators, *Electric Power Components and Systems*, Vol. 37, No. 4, April 2009, pp. 427-440, Bharat Singh and SN Singh.
185. Improved reactive power capability of grid connected doubly fed induction generator, *Wind Engineering*, Vol. 33, No. 4, June 2009, pp. 403-415, Bharat Singh and SN Singh.
186. Strategic bidding and risk assessment using genetic algorithm in electricity markets, *International Journal on Emerging Electric Power Systems (e-journal)*, Berkley Press, Vol.10, Issue 5, Article-1, Arvind K. Jain and S.C. Srivastava.
187. Dynamic ATC enhancement through optimal placement of FACTS controllers, *Electric Power Systems Research*, Vol. 79, No. 11, November 2009, pp. 1473-1482, T Jain, S.N. Singh and S.C. Srivastava.
188. Assessment of oscillatory stability constrained available transfer capability, *International Journal of Electrical Power and Energy Systems*, Vol. 31, June 2009, pp. 192-200, T. Jain, S.N. Singh and S.C. Srivastava.
189. Optical quality SiC nano-structures by spin-on technique and anneal onSi, *J. Phys. D: Appl. Phys.*, 42, 234002 (5pp), (2009), A Mondal and U Das.
190. Optimal placement of UPFC based on system loading distribution factors, *Electric Power Components & Systems*, Vol. 37, No. 4, April 2009, pp. 441-463, J.G. Singh, S.N. Singh and S.C. Srivastava.

191. Placement of UPFC based on system loading distribution factors, *Electric Power Components and Systems*, Vol. 37, No.4 , April 2009, pp. 441-463, J.G. Singh, S.N. Singh and S.C. Srivastava.
192. Development of a fuzzy rule based generalized unified power flow controller, *European Transaction of Electric Power*, Vol. 19, No. 5, July 2009, pp. 702-717, J.G. Singh, P.Tripathy, S.N. Singh and S.C. Srivastava.
193. Modified ceiling bounce model for computing path loss and delay spread in indoor optical wireless systems, *International Journal of Communications, Network and System Sciences (IJCNS)*, Vol.2, 2009, pp.754-758, K Smitha, A Sivabalan, and J John.
194. Design analysis of optical loop memory, *IEEE/OSA Journal of Lightwave Technology*, Vol.27, No.21, November 2009, pp.4821- 4831, Rajiv Srivastava, Rajat Kumar Singh, Y.N.Singh.
195. A novel method of load forecasting using GRNN and PNN techniques in PJM and Australian electricity market using market pricing signal as input, *International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences (IJ-ETA-ETS)*, Vol. 2, No. 2, June-December 2009, pp. 604-610, M.M. Tripathi, K.G. Upadhyay and S.N. Singh.
196. Electricity price forecasting using generalized regression neural network (GRNN) for PJM electricity market, *International Review on Modelling and Simulation (I.RE.M.O.S.)*, Vol.1, N.2, December 2009, M.M. Tripathi, K.G. Upadhyay and S.N. Singh.
197. Near Optimal Training Sequences for Low Complexity Symbol Timing Estimation in MIMO Systems, *IEEE Transactions on Communications* Vol 58, Issue 1, 2010 pp.281-288, Ketan Rajawat and A.K. Chaturvedi.

#### Industrial Management & Engineering

198. Website characteristics, user characteristics and purchase intention: mediating role of website satisfaction, *International Journal of Marketing and Advertising*, Vol 6 (2), 2010, pp. 142-167, Asmita Shukla, N K Sharma, S. Swami.
199. Website satisfaction: Role of user and website characteristics, *International Journal of Marketing and Retailing*, Vol 3 (2), 2010, pp. 114-131, Asmita Shukla, S Swami, N K Sharma
200. Organizational alignment through balance scorecard (BSC) system in defenders, prospectors and innovators, *International Journal of Business Strategy*, V 9(1); 2009; pp. 94-103; Vinay Singh and RRK Sharma.
201. Matching symbolic interaction with relational bonding: Lessons from Toyota's network, V 5 (1), *International Management Review Journal*, 2009, pp. 50-55; Pandey, S. and Sharma RRK.

202. Relating Strategy of Organization to its Management Information Systems, *International Journal of Business Strategy*, 2009, V 9(1); 2009; pp. 132-136; Uma Nair S., Sharma RRK and Kripa Shanker.
203. Organizational factors for Exploration and Exploitation, *Journal of Technology Management and Innovation*, V 4, Issue 1, 2009, pp. 48-58; Pandey, S. and Sharma RRK.
204. Patent priority network: Linking patent portfolio to strategic goals, *Journal of American Society of Information Science and Technology*, V60(11), 2009, pp. 2353-2361; FP Su, KK Lai, RRK Sharma and TS Kuo.
205. An empirical study of leadership characteristics in exploration-exploitative units, *International Leadership Journal*, V1(3/4), Spring/Summer 2009, pp. 54-70; Sharadindu Pandey and RRK Sharma.
206. Fuzzifying Gini Index based decision trees , *Expert Systems with Applications*, Volume 36, Issue 4, May 2009, Pages 8549-8559, B. Chandra, Pallath Paul
207. A new node splitting measure for decision tree construction, *Pattern Recognition*, March 2010 , B. Chandra, Ravi Kothari, Pallath Paul
208. Complex generalized-mean neuron model and its applications, *Applied Soft Computing*, January 2010, Bipin K. Tripathi, B. Chandra, Menakshi Singh, Prem K. Kalra.
209. Modelling the supply chain of Special economic zones in India, *Directions*, V 10 No 2 Dec2009 P Mehta, Ashok Mittal, Kripa Shankar
210. Centre for Engineering Excellence, *Directions* V 10 No 2 Deepak Gupta, AK Chaturvedi, AK Mittal, S Mittal.
211. A Market for Renewable Energy Credits in the Indian Power Sector, *Renewable and Sustainable Energy Review journal*, Elsevier, 2009; Anoop Singh.
212. Informal Markets for Electricity: Economics of lighting for Hawkers in India, Forthcoming in *International Journal of Energy Sector Management: Special Issue on India*, 2009; Anoop Singh.
213. Climate Co-benefit Policies for the Indian Energy Sector: Domestic Drivers and North-South Cooperation, *Climate Policy* Vol 9 (5) 529-543 2009; Anoop Singh.
214. Modeling Factors that will Influence Success of Projects that Want to Adopt Agile Software Development Practices, *Journal of Systems and Software*, ELSEVIER, Vol. 82, No. 9, pp. 1869-1890, 2009, S.C. Misra, U. Kumar, and V. Kumar.
215. Identifying Critical Changes Required for Adopting Agile Software Development Practices in Projects Practicing Traditional Plan Driven Practices, *International Journal of Quality and Reliability Management*, EMERALD, Vol. 27, No. 4, 2010, S.C. Misra, U. Kumar, and V. Kumar.
216. Modeling Critical Challenges Required for Adopting Agile Software Development Practices in Projects Practicing Traditional Plan Driven Practices,



Software Quality Professional Journal, American Society for Quality Publication, Vol. 12, No. 3, 2010, S.C. Misra, U. Kumar, and V. Kumar.

### Materials Science and Engineering

217. Enhancement of wear resistance of copper with tungsten addition (< 20 wt. %) by powder metallurgy route; *Journal of Tribology* 131[4], 2009, 041602-1:041602-9, P. Maji, B. Basu and R. K. Dube.
218. Influence of MoSi<sub>2</sub> addition on load-dependent fretting wear properties of TiB<sub>2</sub> against Cemented Carbide; *J. Am. Cer. Soc.* 92 [9], 2009, 2059, G. Brahma Raju and Bikramjit Basu.
219. Microstructure-mechanical property-wear resistance relationship for Sialon ceramics; *Metallurgical and Materials Transactions A: Volume 40* [10], 2009, 2319, Ravi Kumar, N. Ackibas, F. Kara, H. Mandal and B. Basu.
220. In vivo response of novel Hydroxyapatite-mullite composites: Results up to 12 weeks of implantation; *Journal of Biomedical Materials Research: Part B* 90B, 2009, 547, Shekhar Nath, Bikramjit Basu, Mira Mohanty and P. V. Mohanan.
221. Microstructural Characterization and Isothermal Oxidation Behavior of Hot-Pressed TiB<sub>2</sub>-10 wt% TiSi<sub>2</sub> Composite; *Scripta Materialia* 61, 2009, 674, G. Brahma Raju, K. Biswas and Bikramjit Basu.
222. Phase assemblage study and cytocompatibility property of heat treated potassium magnesium phosphate-silicate ceramics; *Journal of Materials Science: Materials in Medicine* 20 [8], 2009, 1689, Ravi Kumar, Sushma Kalmodia, Shekhar Nath, Dileep Singh and Bikramjit Basu.
223. Understanding of Friction and Wear properties of Steel Backed Al-10Sn-4Si-1Cu metallic Strips prepared via Spray Atomization-Deposition-Rolling Route; *Surface and Coatings Technology*, 203, 2009, 3541, P. Munda, B. Basu, R K Dube and S C Koria.
224. Nanoindentation response of novel Hydroxyapatite-Mullite composites; *Mat. Sc. Engg. A* 513-514, 2009, 197-201, Shekhar Nath, A. Dey, A. K. Mukhopadhyay and Bikramjit Basu.
225. Fretting wear behavior SiO<sub>2</sub>-MgO-Al<sub>2</sub>O<sub>3</sub>- K<sub>2</sub>O-B<sub>2</sub>O<sub>3</sub>-F glass ceramics in ambient conditions and artificial saliva, *J. Eur. Cer. Soc.* 29, 2009, 2481, A. R. Molla, B. V. Manoj Kumar and B. Basu.
226. Sliding wear properties of high purity copper in cryogenic environment; *Journal of Materials Science* 44, 2009, 2300, B. Basu, B. V. Manoj Kumar and P. Gilman.
227. Time constant determination for electrical equivalent of biological cells; *Journal of Applied Physics* 105 [8], 2009, 084705 - 084705-8, A. Dubey, A. Tiwari, R. Kumar, S. Gupta and B. Basu.

228. Friction and Wear Properties of Novel HDPE-HAp- $\text{Al}_2\text{O}_3$  Composites against Alumina counterface, *J. Biomaterials Applications* 23, 2009, 407, Subhadip Bodhak, Shekhar Nath and Bikramjit Basu.
229. HDPE- $\text{Al}_2\text{O}_3$ -HAp Composites for Biomedical Applications: Processing and Characterization; *Journal of Biomedical Materials Research: Part B, Applied Biomaterials* 88B, 2009, 1, Shekhar Nath, Subhadip Bodhak and Bikramjit Basu.
230. Simulation of Thermal and Electric field Evolution during Spark Plasma Sintering; *Ceramics International* 35, 2009, 699, Devesh Tiwari, Bikramjit Basu and Koushik Biswas.
231. Understanding Phase stability, microstructure development and biocompatibility in Calcium Phosphate-Titania composites, synthesized from Hydroxyapatite and Titanium Powder mix; *Mat. Sc. Engg. C.* 29, 2009, 97, Shekhar Nath, Rajesh Tripathi and Bikramjit Basu.
232. Understanding the mechanical properties of hot pressed Ba-doped S-Phase sialon Ceramics, *J. Eur. Cer. Soc.* 29, 2009, 801, Bikramjit Basu, Manisha and N. K. Mukhopadhyay.
233. Correlation between phase evolution, mechanical properties and instrumented indentation response of  $\text{TiB}_2$ -based ceramics; *J. Eur. Cer. Soc.* 29, 2009, 505, A. Mukhopadhyay, G. B. Raju, A. K. Suri and B. Basu.
234. Is Weibull Distribution the Most Appropriate Statistical Strength Distribution for Brittle Materials?; *Ceramics International*, 35, 2009, 237, Bikramjit Basu, Devesh Tiwari, Debasis Kundu and Rajesh Prasad.
235. Understanding friction and wear mechanisms of high-purity Titanium against steel in liquid nitrogen temperature; *Metallurgical and Materials Transactions* 40A, 2009, 472, B. Basu, J. Sarkar and R. Mishra.
236. On the development of two characteristically different crystal morphology in  $\text{SiO}_2$ - $\text{MgO}$ - $\text{Al}_2\text{O}_3$ - $\text{K}_2\text{O}$ - $\text{B}_2\text{O}_3$ -F glass-ceramic system, *Journal of Materials Science: Materials in Medicine*, 20 [1], 2008, 51, S. Roy and B. Basu.
237. Oxidation kinetics and mechanisms of hot pressed  $\text{TiB}_2$ - $\text{MoSi}_2$  composites; *J. Am. Cer. Soc.*, 91[10], 2008, 3320-3327, G. Brahma Raju, Bikramjit Basu and A. K. Suri.
238. Model for Fretting Wear of Brittle Ceramics; *Acta Materialia*, 57, 2009, 2080, A. Tewari, R. K. Bordia and B. Basu.
239. Microstructure, mechanical and in vitro properties of Mica Glass-ceramics with varying fluorine content, *Journal of Materials Science: Materials in Medicine*, 20 [4], 2009, 869, A. R. Molla and B. Basu.
240. Temperature dependent Hardness and Strength Properties of  $\text{TiB}_2$  with  $\text{TiSi}_2$  sinter-aid; *J. Eur. Cer. Soc.* 29 [10], 2009, 2119, G. Brahma Raju, Bikramjit Basu, N. H. Tak and S. J. Cho.
241. Hydrophobicity of Lotus Leaf: A Nanomechanical and Computational Approach, *Nanotechnology* 20, 2009, 305707, Kantesh Balani, R. G. Batista, D. Lahiri, A. Agarwal.

242. Stiffness Dependence of Pigmentation in Murine Cardiac Tricuspid Valve Leaflet, *J Royal Society Interface* 6 , 2009, 1097, Kantesh Balani, F.C. Brito, L. Kos and A. Agarwal.
243. Nano-scratching of Biocompatible Hydroxyapatite Reinforced with Aluminum Oxide and Carbon Nanotubes; *J. Metals, Minerals and Materials (JOM)* 61 (9), 2009, 63, Kantesh Balani, A.K. Keshri, D. Lahiri, J.E. Tercero and A. Agarwal.
244. Effect of Carbon Nanotube and Aluminum Oxide Addition on Plasma Sprayed Hydroxyapatite Coating's Mechanical Properties and Biocompatibility, *Materials Science and Engineering*, 29, 2009, 2195, J. Tercero, S. Namin, D. Lahiri, Kantesh Balani, N. Tsoukias and A. Agarwal.
245. Grain Growth Behavior of Aluminum Oxide Reinforced with Carbon Nanotube During Plasma Spraying and Post-Spray Consolidation. *International Journal of Applied Ceramic Technology* (published online, 2009, Kantesh Balani, S. Bakshi, D. Lahiri and A. Agarwal.
246. Experimental and numerical investigation of fracture resistance behaviour of a dissimilar metal welded joint, *Proc. IMechE, Part C: Journal of Mechanical Engineering Science*, 223, 2009, 1507, M.K. Samal, Kantesh Balani, M. Seidenfuss, E. Roos.
247. Preparation of nanocrystalline Ni-Fe strip via mechanical alloying compaction-sintering - hot rolling route, *Journal of Materials Science*, 44, 2009, 129, S.K. Vajpai and R.K. Dube.
248. Studies on the bulk nanocrystalline Ni-Fe-Co alloy prepared by mechanical alloying-sintering- hot rolling route, *Journal of Alloys and Compounds*, 476, 2009, 311, S.K. Vajpai, B.V. Mahesh and R.K. Dube..
249. Aspects of porosity formation in spray deposited thin aluminium strip, *Powder Metallurgy* 52, 2, 2009, 135, K.K. Sahu, R.K. Dube and S.C. Korla.
250. Friction and wear properties of steel backed Al-10Sn-4Si-1Cu metallic strips prepared via spray atomization-deposition-rolling route, *Surface and Coating Technology*, 203, 2009, 3541, P. Munda, R.K. Dube, B. Basu and S.C. Korla.
251. Studies on the mechanism of the structural evolution in Cu-Al-Ni elemental powder mixture during high energy ball milling, *J. Materials Science*, 44, 2009, 4334, S.K. Vajpai, R.K. Dube, and M. Sharma.
252. Enhancement of wear resistance of copper with tungsten addition (< 20 wt%) by powder metallurgy route, *Journal of Tribology*, 131, (4), 2009, 041602 (1-9), Poulami Maji, R.K.Dube, and Bikramjit Basu.
253. On the Kautilya's characterization tests for the purity of silver and its experimental replication, *Materials Characterization*, 60, 2009, 277, R.K. Dube.
254. On the Sanskrit word Svarnaja used for metal tin, *Indian Journal of the History of Science*, 44, 2009, 95, R.K. Dube.
255. Mass Transfer of P<sub>2</sub>O<sub>5</sub> between Liquid Slag and Solid Solution of 2CaO-SiO<sub>2</sub> and 3CaO-P<sub>2</sub>O<sub>5</sub>, *ISIJ International*, 49, 2009, 1838, S. Kitamura, S. Saito, K. Utagawa, H. Shibata and D. G. C. Robertson.

256. Temperature and structure dependency of solid-liquid interfacial energy, *Acta Mater* 57, 2009, 3422, K. Mondal, A. Kumar, G. Gupta and B.S. Murty.
257. In situ nanocrystalline Fe-Si coating by mechanical alloying, *J. Alloys and Compounds* 482, 2009, 118, G. Gupta, K. Mondal and R. Balasubramaniam.
258. Effect of Zn concentration on diffusion induced grain boundary migration in Cu-Zn system, *Trans. IIM* 62, 2009, 233, A.K. Pradhan, S.P. Gupta and K. Mondal.
259. On the constrained and unconstrained room temperature plasticity of metallic glass, *Trans IIM* 62 (4-5), 2009, 441, K. Mondal and K. Hono.
260. Assembly and Magnetic Properties of Nickel Nanoparticles on Silicon Nanowires, *Appl. Phys. Lett.* 94, 2009, 223118, S. Ingole, P. Manandhar, J. A. Wright, E. Nazaretski, J. D. Thompson and S. T. Picraux.
261. Theoretical investigation of the interfacial reactions during hot dip galvanizing of steel, *Materials and Metallurgical Transaction A* 40A, 2009, 637, G.K. Mandal, R. Balasubramaniam and S.P. Mehrotra.
262. Microstructural study of galvanized coatings formed in pure as well as commercial grade Zn baths, *Transaction of The Indian Institute of Metals* 62, 2009, 35, G.K. Mandal, D. Mandal, S.K. Das, R. Balasubramaniam and S.P. Mehrotra.
263. Energetics of mechanical activation - Application to ilmenite, *Minerals Engineering* 22, 2009, 572, C. Sasikumar, S. Srikanth, N.K. Mukhopadhyay and S.P. Mehrotra.
264. A novel flowsheet combining dry and wet techniques for the recovery of metal values from waste printed circuit boards, *Resources, Conservation and Recycling* 53, 2009, 464, A. Das, A. Vidyadhar and S. P. Mehrotra.
265. Optimal synthesis of an industrial fluorspar beneficiation plant using a jumping gene adaptation of genetic algorithm, *Minerals and Metallurgical Processing Journal*, 2009, 174, Chandan Guria, Mohan Varma, Santosh K. Gupta and S.P. Mehrotra.
266. Resistance heating of oxide slags - Theoretical model and experimental validation, *Canadian Metallurgical Quarterly* 48, 2009, 387, R. Kanti, M. Kumar, S. Ranganathan, S. Saksena and S.P. Mehrotra.
267. Prediction of separation performance of flotex density separation for processing of fine coal particles, *International Journal of Mineral Processing* 91, 2009, 41, A. Das, B. Sarkar and S. P. Mehrotra.
268. Quench hardening of 0.4 % C steel by using aqueous electrolyte plasma as heat source, *Surface Engineering* 25 (6), 2009, 423, A. Roy, S. J. Parihar; A. Singh, R. C Sharma and R. Shekhar.
269. New Insights on Architects of Taj, *Indian Journal of History of Science* 44.3, 2009, 389-410, R Balasubramaniam.
270. New Insights on Artisans of Taj, *Indian Journal of History of Science* 44.4, 2009, 521-550, R Balasubramaniam.

271. Electron Backscattering Diffraction Analysis of an Ancient Wootz Steel Blade from Central India *Materials Characterization* 60, 2009, 252-260, M.R. Barnett, A. Sullivan and R. Balasubramaniam .
272. On History of Damage Caused to Quwwat-ul-Islam Mosque by Cannon Fire Employed to Break the Delhi Iron Pillar, *IFCAI Journal of History and Culture* 3, 2009, 105-116, R. Balasubramaniam.
273. On Technical Analysis of Cannon Shot Crater on Delhi Iron Pillar, *Indian Journal of History of Science* 44 , 2009, 29-46, R. Balasubramaniam, V.N. Prabhakar and Manish Shankar.
274. On the Nature of Rusts on Phosphoric Irons, *Journal of Corrosion Science and Engineering* 10, 2008, 1-18, Gadadhar Sahoo, R. Balasubramaniam and A. C. Vajpei.
275. Correlation between Microstructure and Phosphorus Segregation in a Hypereutectoid Wootz Steel, *Journal of Materials Science* 44, 2009, 2192-2197, M. R. Barnett, R. Balasubramaniam, Vinod Kumar and Colin MacRae.
276. H<sub>2</sub> Solubility in Pd/Cr<sub>2</sub>O<sub>3</sub> Composites Prepared by Internal Oxidation of Pd - Cr Alloys: Equilibrium Pressure-Composition-Temperature Data, *Journal of Physical Chemistry* 113, 2009, 4078-4087, D. Wang, Ted B. Flanagan, Gauthama and R. Balasubramaniam.
277. Recrystallization Annealing of Cold Rolled 9Cr 1Mo Ferritic steel Containing Silicon, *Defects and Diffusion Forum* 282 (2008) 9-16, M. N. Mungole, M. Surender, R. Balasubramaniam and S. Bhargava.
278. Cobblestone Mesotexture in a Nanocrystalline Ni-20Fe Electrodeposit *Scripta Materialia* 60, 2009, 603-606, M.R. Barnett, P. Cizek, M. Nave, A. Sullivan and R. Balasubramaniam.
279. On the Confirmation of the Traditional Unit of Length Measure in the Estimates of Circumference of the Earth, *Current Science* 96 , 2009, 547-552, R. Balasubramaniam.
280. Passivity of Tb<sub>0.3</sub>Dy<sub>0.7</sub>Fe<sub>1.92</sub> in Alkaline Solution and Its Breakdown by Chloride Ions, *Corrosion Engineering Science and Technology* 44, 2009, 280-288, Deepika Sachdeva and R. Balasubramaniam.
281. Characterization of Rust on Microalloyed Rail Steel Exposed to Coastal location in India, *Corrosion Engineering Science and Technology* 44, 2009, 275-279, Bijayani Panda, R. Balasubramaniam, A. C. Vajpei, S. Srikanth and A. Bhattacharyya.
282. Enhancing Corrosion Resistance of Mg Alloy AZ31B in NaCl Solution Using Alumina Reinforcement at Nanolength Scale, *Corrosion Engineering Science and Technology* 44, 2009, 381-383, M. Kukreja, R. Balasubramaniam, Q.B. Nguyen, and M. Gupta.
283. Microstructure and Mechanical Properties of Novel Rail Steels, *Materials Science and Technology* 25, 2009, 1375-1382, Bijayani Panda, R. Balasubramaniam and A.P. Moon.

284. Determination of Hydrogen Diffusivity in Rail Steels by Subscale Microhardness Profiling Technique, Defects and Diffusion Forum 293, 2009, 41-45, A.P. Moon and R. Balasubramaniam.
285. New Insights on Metrology during Maurayan Period, Current Science 97, 2009, 680-682, R. Balasubramaniam.
286. New Insights on the Modular Planning of the Taj Current Science 97, 2009, 42-49, R. Balasubramaniam.
287. Hydrogen Embrittlement of Rail Steels, Material Science and Engineering A 527, 2010, 3259-3263, A.P. Moon, R. Balasubramaniam, B. Panda.
288. Fretting and Fretting Corrosion Behavior of Novel Microalloyed Rail Steels Wear 267, 2009, 1702-1708, Bijayani Panda, R. Balasubramaniam, Sujata Mohapatra, Gopal Dwivedi.
289. Improved efficiency in fluorescent blue organic light emitting diode with a carrier confining structure, Organic Electronics, 10, 2009, 1201-1208, Girija Samal, N. Unni Narayanan, Saswat Bharat and Deepak.
290. An analysis of the difference in behavior of top and bottom contact organic thin film transistors using device simulations, Organic Electronics, 10 (5), 2009, 775-784, Dipti Gupta, Monica Katiyar, Deepak.
291. Size Effect on Lattice Parameter of KCl during Mechanical Milling, Scripta Mater. 61, 2009, 600-603, P. Sharma, Krishanu Biswas and A.K. Mondal.
292. Microstructural Evolution during Laser Resolidification of Fe-18 at% Ge Alloy, Mater. and Metall. Trans A 41 (3), 2010, 574-582, Krishanu Biswas and K. Chattopadhyay.
293. Microstructural Characterization and Isothermal Oxidation Behavior of Hot-Pressed TiB<sub>2</sub>-10 wt% TiSi<sub>2</sub> Composite; Scripta Mater 61(1), 2009, 104-107, G.B. Raju, Krishanu Biswas and B. Basu.
294. Microwave Heating of Pure Copper Powder with Varying Particle Size and Porosity, Journal of Microwave Power & Electromagnetic Energy JMPEE 43(1), 2009, 5-10, A. Mondal, D. Agrawal, A. Upadhyaya.
295. Microwave Sintering of W-18Cu and W-7Ni-3Cu Alloys, Journal of Microwave Power & Electromagnetic Energy JMPEE 43(1), 2009, 11-16, A. Mondal, A. Upadhyaya, D. Agrawal.
296. Sintered Intermetallic Reinforced 434L Ferritic Stainless Steel Composites, Metallurgical and Materials Transactions A 40A, 2009, 673-683, A. Upadhyaya and S. Balaji.
297. Effect of Varying Gas-Flow Conditions on the Characteristics of the Diffusion Flame and Silica Powders Prepared using Flame Combustion Synthesis, Powder Technology 191, 2009, 164-169, S.S. Panda, D.P. Mishra, A. Upadhyaya.
298. Mechanical, Corrosion and Sliding Wear Behavior of Aluminide Reinforced Austenitic Stainless Steel Composites, Journal of Materials Science 44(9), 2009, 2310-2319, S. Balaji and A. Upadhyaya.

299. Evaluation of Braze Bonded Hard Complex Boride Based Coatings for Sliding, Erosion and Abrasion Wear, *Wear* 266, 2009, 1058-1065, B. Palanisamy, A. Upadhyaya and K. Anand.
300. First-Principles Calculations of Born Effective Charges and Spontaneous Polarization of Ferroelectric Bismuth Titanate, *Journal of Physics: Condensed Matter* 22, 2010, 165902, A. Roy, R. Prasad, S. Auluck and A. Garg.
301. BiFeO<sub>3</sub> Ceramics Synthesized by Mechanical Activation Assisted vis-à-vis Conventional Solid-State-Reaction Process: A Comparative Study, *Journal of Alloys and Compounds* 477, 2009, 780, D. Maurya, K.S. Nalwa. H. Thota and A. Garg.
302. Impedance Spectroscopy Studies on Polycrystalline BiFeO<sub>3</sub> Thin Films on Pt/Si Substrates, *Journal of Applied Physics*, 105, 2009, 054103, A. Srivastava, A. Garg and F.D. Morrison,.
303. Structural Changes and Ferroelectric Properties of BiFeO<sub>3</sub>-PbTiO<sub>3</sub> Thin Films Grown via a Chemical Multilayer Deposition Method, *Journal of Applied Physics* 105, 2009, 014101. (Among 20 most downloaded papers in January 2009), S. Gupta, A. Garg, D.C. Agrawal, S. Bhattacharjee and D. Pandey.
304. Structure and properties of lanthanum-doped bismuth ferrite thin films, *Solid State Communications* 149, 2009, 734, V.R. Singh, A. Garg, D.C. Agrawal.
305. Photovoltaic Effect in Organic Solar Cell Device using AVPV, *Solar Energy Materials and Solar Cells* 93, 2009, 211, A. Solanki, A. Gupta, S.S.K. Iyer and A. Garg.
306. Magnetic Studies on Multiferroic Bi<sub>1-x</sub>Sm<sub>x</sub>FeO<sub>3</sub> Ceramics Synthesized by Mechanical Activation Assisted Process, *Journal of Physics C: Condensed Matter* 21, 2009, 026007, D. Maurya, H. Thota, A. Garg, B. Pandey, P. Chand, and H.C. Verma.
307. In-situ High-Temperature Phase Transformation Studies on Pyrite, *Fuel*, 88, 2009, 988, S. Bhargava, A. Garg and D. Subasinghe.

## Mechanical

308. Forward and inverse analyses of smart compliant mechanism for path generation, *Mechanism and Machine Theory*, 2009, 44, pp. 369-381, Banerjee, B. Bhattacharya, and A.K. Mallik.
309. Multi-objective Optimization of Piezoelectric Actuator Placement for Shape Control of Plates using Genetic Algorithms, *Journal of Mechanical Design*, 2009, 131, pp. 1-11, R. Kudikala, K. Deb and B. Bhattacharya.
310. A comparative study on the control of friction-driven oscillations by time-delayed feedback, *Journal of Nonlinear Dynamics*, A Saha, B. Bhattacharya and P. Wahi.

311. Analysis of Pilot Valve and Taper Groove Based Damper, Proceedings of I Mech E London Part C, J. Mechanical Engineering Science, Vol. 223 (C4), pp 859-871, R.M. Bhatnagar, B. Bhattacharya and G. Biswas.
312. A Geometric Approach for Segmentation and Parameterization of Molecular Surfaces for Docking', International Journal of Computational Science, Vol. 3 No. 2, 178-196, 2009, Hari K. Voruganti and Bhaskar Dasgupta.
313. A Variational Approach to Path Planning for Hyper-Redundant Manipulators", Robotics and Autonomous Systems, Vol. 57 No. 2, 194-201 (2009), Bhaskar Dasgupta, Akhil Gupta and Ekta Singla.
314. Dimensional Synthesis of Kinematically Redundant Serial Manipulators for Cluttered Environments", Robotics and Autonomous Systems, Vol.58, No.5, 585-595 (2010), Ekta Singla, Suryamani Tripathi, V. Rakesh and Bhaskar Dasgupta.
315. Vortex dynamics of a cylinder wake in proximity of a wall, Journal of Fluids and Structures, Vol. 26, pp. 19-40, 2010, S. Sarkar and Sudipto Sarkar.
316. Influence of wake structure on unsteady flow in an LP turbine blade passage, ASME Journal of Turbomachinery, Vol.131, 041016, 14 pages, 2009, S. Sarkar.
317. Large-Eddy Simulation of Wake and Boundary Layer Interactions Behind a Circular Cylinder, ASME J. Fluids Engineering, Vol. 131, 091201 (2009) (13 pages), S. Sarkar and Sudipto Sarkar.
318. Experimental investigation and mechanism of material removal in nano finishing of MMCs using abrasive flow finishing (AFF) process, Wear, 2008, Vol. 266, Issue 7-8, (2009), pp 688-698, Mamilla Ravi Sankar, J. Ramkumar and V.K. Jain.
319. Experimental Investigations and Modeling of Drill Bit Guided Abrasive Flow Finishing (DBG-AFF) Process, International journal of Advanced Manufacturing Technology, Vol. 42, No.7-8, PP 678-688, 2009, Mamilla Ravi Shankar, S. Mondal, J. Ramkumar, V.K. Jain.
320. The Measurement Of attogram mass Accumulation On nanostructures During e-Beam Scanning Using Carbon Nano Pillars in Resonant Mode, Journal of Nano Technology, July 2009, Vol. 20, Amit Banerjee, Trun Mankad, S. Dhamodaran, J. Ramkumar, V. N. Kulkarni.
321. The Effect of Process Parameters on Machining of Magnesium Nano Alumina Composite Through EDM, Journal of Advance Manufacturing Technology, July 2009, K. Ponappa, S. Aravindan, P. V. Rao, J. Ramkumar, M. Gupta.
322. Rheological characterization and performance evaluation of a new medium developed for abrasive flow finishing, International Journal of Precision Technology, Vol. 1, No.3-4, PP 302-313, 2010, M. Ravi Sankar, V. K. Jain, J. Ramkumar, Kamal K. Kar.
323. Computational Investigation on Bubble Detachment from Submerged Orifice in Quiescent Liquid under Normal and Reduced Gravity, Physics of Fluids,



- Vol.21, Published online on June 11, 2009, Chakraborty, B. Ray, G. Biswas, F. Durst, A. Sharma, P.S. Ghoshdastidar.
324. Simulation and Optimization of Drying of Wood Chips with Superheated Steam in a Rotary Kiln, *ASME Journal of Thermal Science and Engineering Applications*, Vol.1, No.2, pp.024501-1-8, June 2009 issue, P.S. Ghoshdastidar and Ankit Agarwal.
  325. Design of a Partially Compliant Crank Rocker Mechanism Using Ionic Polymer Metal Composite for Path Generation, *Materials & Design*, vol. 31, 2010, pp. 2471-2477, Biswanat Panda, Ashish Dutta.
  326. Multi-objective GA based algorithm for 2D form and force closure grasp of prismatic objects. *International Journal of Robotics and Automation*, vol. 25, no. 2, 2010, S. Manepalli, Ashish Dutta, Anupam Saxena.
  327. Stochastic Re-grasp Planning for Vision Aided Capture of Deforming and Moving Objects. *Mechatronics*, vol. 19, no.4, 2009, pp.510-519, Tripures Mishra, Prithwiji Guha, Ashish Dutta and K. S. Venkatesh.
  328. Pseudo-rigid body modeling of IPMC for a partially compliant 4-bar mechanism for work volume generation. *Journal of Intelligent Material Systems and Structures, Investigations into abrasive flow finishing of complex workpieces using FEM, Wear*, Vol. 267(1-4), 2009, pp. 71-80, V.K. Jain, R. Kumar, A. Sidpara and P.M. Dixit.
  329. Measurement of Heat Transfer during Dropwise Condensation of Water on Polyethylene, *Nanoscale and Microscale Thermophysical Engineering*, Vol. 13(3), pp. 184-201 (2009), Gagan Deep Bansal, Sameer Khandekar and K. Muralidhar.
  330. Reconstruction of Time-dependent Concentration Gradients around a KDP crystal growing from its Aqueous Solution, *Journal of Crystal Growth*, Vol. 311, pp. 1166-1177 (2009), Atul Srivastava, Dhruv Singh, and K. Muralidhar.
  331. Color schlieren deflectometry for characterization of crystal growth processes: KDP and protein crystals, *Journal of Crystal Growth*, Vol. 312, pp. 817-830 (2010), Anamika S. Gupta, P.K. Panigrahi, and K. Muralidhar.
  332. Control of Flow in Forced Jets: a Comparison of Round and Square Cross-sections, *Journal of Visualization*, Vol. 13(2), pp. 141-149 (2010), Trushar Gohil, A. K. Saha, and K. Muralidhar.
  333. Simulation of Oscillatory Flow in an Aortic Bifurcation using FVM and FEM: A Comparative Study, *International Journal of Numerical Methods in Fluids* (2010), Trushar Gohil, R. McGregor, D. Szczerba, K. Burckhardt, K. Muralidhar, and G. Szekely.
  334. Flow past a transversely oscillating square cylinder in free stream at low Reynolds numbers, *International Journal for Numerical Methods in Fluids*, Vol. 61, pp. 658-682, (2009), A.P. Singh, A. K. De, V. K. Carpenter, V. Eswaran and K. Muralidhar.

335. A schlieren-interferometric study of wakes of heated cylinders, Kiran - A bulletin of the Indian Laser Association, pp. 34-39, Vol. 20(2), 2009, S.K. Singh, P.K. Panigrahi, and K. Muralidhar.
336. Imaging transport phenomena and surface micro morphology in crystal growth using optical techniques, National Academy Science Letters, Vol. 33(5-6), 2010, S. Verma and K. Muralidhar.
337. Finite element simulation of earing defect in deep drawing, International Journal of Advanced Manufacturing Technology, Vol. 45(3), 2009, pp. 219-233, R.K. Saxena and P.M. Dixit.
338. Wrinkling prediction in deep drawing process using bifurcation criterion, Journal of Manufacturing Processes, Vol. 12(1), 2010, pp. 19-29, R.K. Saxena and P.M. Dixit.
339. Patterns and bifurcations in low-Prandtl number Rayleigh-Bénard convection, Europhysics Letters, 89, 2010, Mishra, P.K., Wahi, P., and Verma, M. K.
340. A comparative study on the control of friction-driven oscillations by time-delayed feedback, Nonlinear Dynamics, 60(1), 2010, 15-37, Saha, A., Bhattacharya, B., and Wahi, P.
341. Bifurcation and chaos in zero Prandtl number convection, Europhysics Letters, 87, 2009, 54003(1-6), Pal, P., Wahi, P., Paul, S., Verma, M. K., Kumar, K., and Mishra, P. K.
342. A phase field model of vesicle substrate adhesion. Journal of Computational Physics, 228, 7837, 2009, Zhang, J., Das, S., and Du, Q.
343. Neck geometry and shape transitions in vesicles with co-existing fluid phases: Role of Gaussian curvature stiffness versus spontaneous curvature. Europhysics Letters, 86, 48003, 2009, Das, S. L., Jenkins, J. T., and Baumgart, T.
344. Comparison of quasi-static and dynamic compression behavior of closed-cell aluminum foam, Materials Science And Engineering A, 526:1-2, Pages: 11-15 Published: NOV 25 2009, R. E. Raj, V. Parameswaran, B.S.S. Daniel.
345. Dielectric Spectroscopy of Epoxy Resin with and without Nanometric Alumina Fillers, IEEE Transactions On Dielectrics And Electrical Insulation, 16:5 Pages: 1481-1488 Published: OCT 2009, P. Maity, P. K. Poovamma, S. Basu, V. Parameswaran.
346. Radiative Pyrolysis of a Double-base Propellant', 45<sup>th</sup> AIAA/ASME/SAE/ASEE Joint Propulsion Conference and Exhibit, 2-5 Aug. 2009, Denver, Colorado, USA, Presented by the 2<sup>nd</sup> author, Das, M.K., and Thynell, S.T.
347. Equilibrium shapes of rubble-pile binaries: The Darwin ellipsoids for gravitationally held granular aggregates, ICARUS, Volume 205, Issue 2, Ishan Sharma.
348. The equilibrium of rubble-pile satellites: The Darwin and Roche ellipsoids for gravitationally held granular aggregates, Icarus, Volume 200, Ishan Sharma.

349. Dielectrophoretic Assisted Concentration of Micro-particles and their rapid quantitation based on optical means, *Biomedical Microdevices*, Vol. 11 (5), pp. 987-995 2009, Anil Ghubade, Swarnasri Mandal, Rahul Chaudhury, Rajeev Kr. Singhand Shantanu Bhattacharya.
350. A microfluidic celltrap device for automated measurement of quantal catecholamine release from cells, *Lab on chip*, Vol. 9, 3442 - 3446, 2009, Yuanfang Gao, Shantanu Bhattacharya, Xiaohui Chen, Syed Barizuddin, Shubhra Gangopadhyay, Kevin D. Gillis.
351. Bilayer Staggered Herringbone Micromixers with symmetric and symmetric geometries, Manuscript communicated to *Microfluidics and Nanofluidics*, (In review), 2010, Rahul Chaudhury, Tamalika Bhakat, R.K. Singh, Anil B. Ghubade, Swarnasri Mandal, Arnab Ghosh, Amritha Rammohan, Ashutosh Sharma, Shantanu Bhattacharya.
352. STEP-based Automatic System for Recognizing Design and Manufacturing Features, *International Journal of Production Research*, V48, 2010, 117-144, S Nagarajan, N V Reddy.
353. Influence of Process Parameters for coating of nickel-phosphorous Carbon fibers, *J of Materials Processing & Technology*, Vol:209(6), Year 2009, pp: 3022-3029, Kamal K. Kar and D. Sathiyamoorthy.
354. Processing and Mechanical Behaviour of Carbon-Black Functionally Graded Rubber Compounds, *Journal of Applied Polymer Science*, Vol.155(6), Year 2009, pp.3146-3154, Sandeep S. Ahankari and Kamal K. Kar.
355. Synthesis of Carbon Nanotubes on the Surface of Carbon fiber/fabric by Catalytic Chemical Vapor Deposition and their Characterization, *Fullerenes, Nanotubes, and Carbon Nanostructures*, Vol.: 17, Year 2009, pp. 209-229, Kamal K. Kar, A. Rahaman, P. Agnihotri, and D. Sathiyamoorthy.
356. Synthesis and characterization of elastic and macroporous chitosan-gelatin cryogels for tissue engineering, *Acta Biomaterialia*, Vol. 5(1), 2009, pp. 406-418, Neeraj Kathuria, Anuj Tripathi, Kamal K. Kar and Ashok Kumar.
357. Thermal degradation kinetics and estimation of lifetime of polyethylene particles: Effects of particle size, *Materials Chemistry and Physics*, Vol.: 113(2-3), 2009, pp. 953-961, 50, Pradip Paik and Kamal K. Kar.
358. Performance Evaluation and Rheological Characterization of Newly Developed Butyl Rubber Based Media for Abrasive Flow Machining Process, *Journal of Materials Processing Technology*, Vol.: 209, 2009, pp.2212-2221, Kamal K Kar, NL Ravikumar, PB Tailor, J. Ramkumar and D. Sathiyamoorthy.
359. Preferential media for Abrasive Flow Machining, *Transactions of the ASME, Journal of Manufacturing Science and Engineering*, Vol.: 131, 2009, pp. 011009-1-011009-1, Kamal K Kar, NL Ravikumar, PB Tailor, J. Ramkumar and D. Sathiyamoorthy.

360. Polypropylene Nanosphere: Particle Size and Crystal Structure, *International Journal of Plastic Technology*, *International Journal of Plastic Technology*, 2009, pp 68-82, Pradip Paik and Kamal K Kar.
361. A novel approach to synthesize carbon nanotubes, carbon nanocoils, carbon microcoils on the surface of metallic wire: application in vacuum electronic devices, *Advances in Technology of Materials and Materials Processing Journal*, Vol. 11(2), Year 2009, pp. 49-56, S. Agarwal, YaminiSarada B., Kamal K. Kar.
362. An Interactive Evolutionary Multi-Objective Optimization and Decision Making Procedure. *Applied Soft Computing Journal*, vol. 10, 496–511, 2010, Chaudhuri, S. and Deb, K.
363. Reliability-Based Optimization Using Evolutionary Algorithms. *IEEE Transactions on Evolutionary Computation*, vol. 13, no. 5, 1054–1074, 2009, Deb, K., Gupta, S., Daum, D., Branke, J., Mall, A., and Padmanabhan, D.
364. Multi-Objective Optimization of Piezoelectric Actuator Placement for Shape Control of Plates Using Genetic Algorithms. *ASME Journal of Mechanical Design*, vol. 131, no. 9, Kudikala, R., Deb, K., and Bhattacharya, B.
365. Optimal strategies of the iterated prisoner's dilemma problem for multiple conflicting objectives. *IEEE Transactions on Evolutionary Computation*, vol. 13, no. 3, 554–565, 2009, Mittal, S. and Deb, K.
366. Genetic algorithm based multicriteria optimization of ironmaking in the blast furnace. *Journal of Materials and Manufacturing Processes*, 24(3), 343–349, 2009, Pettersson, F., Saxen, H. and Deb, K.
367. Int. J. Numer. Meth, Flow past a transversely oscillating square cylinder in free stream at low Reynolds numbers, *Fluids*, 61, pp. 658-682, (2009), P. Singh, A. K. De, V. K. Carpenter, V. Eswaran and K. Muralidhar.
368. Effects of Reynolds and Prandtl numbers on heat transfer from a square cylinder in the unsteady flow regime, *Int. J. Heat Mass Transfer*, 52, 839-850, 2009, K. Sahu, R. P. Chhabra and V. Eswaran.
369. Two dimensional unsteady laminar flow of a power law fluid across a square cylinder, *J. Non-Newtonian Fluid Mechanics*, 160, 157-167 (2009), K. Sahu, R. P. Chhabra and V. Eswaran.
370. Forced convection heat transfer from a heated square cylinder to power-law fluids in the unsteady flow regime, *Numerical Heat Transfer, Part A*, 56, 109-131 (2009), K. Sahu, R. P. Chhabra and V. Eswaran.
371. Momentum and heat transfer phenomena for power-law liquids in assemblages of solid spheres of moderate to large void fractions, *Numerical Heat Transfer, Part A*, 56, 970-986 (2009), Nanda Kishore, S. D. Dhole, R. P. Chhabra and V. Eswaran.
372. Thermal stratifications studies in a side heated pool for advanced heavy water reactor applications, *Journal of Mass Transfer*: 45:27-285 (2009), Gupta, V. Eswaran, P. Munshi, N.K. Maheswari and P.K Vijayan.

373. A Numerical Simulation of Combined Radiation and Natural Convection in a Differential Heated Cubic Cavity, *Trans. of ASME, Journal of Heat Transfer*, 132: 2: 023501 (2010), P. Kumar and V. Eswaran.
374. Effect of cutting parameters on cutting force, surface finish and tool wear in hot machining *International Journal of machining and machinability of Materials*, Vol.7, Nos.3/4, pp.278-291, 2010, S.K. Thandra, S.K. Choudhury.
375. Measurement of Heat Transfer during Dropwise Condensation of Water on Polyethylene, *Nanoscale and Microscale Thermophysical Engineering*, Vol. 13, Issue 3, pp. 184-201, 2009, Bansal G. D., Khandekar S. and Muralidhar K.
376. Local Entropy Generation for Saturated Two-phase Flow, *Energy-The International Journal*, Vol. 34, Issue 9, pp. 1113-1121, 2009, Revellin R., Lips S., Khandekar S. and Bonjour J.

#### Humanities and Social Sciences

377. Structure of Verbs in Malto. *Journal of South Asian Linguistics*. Vol 2. 2009. Chaithra Puttaswamy.
378. Philip Roth's Nostalgia for the Yiddishkayt and the New Deal Idealisms in 'The Plot Against America'. *Philip Roth Studies* Vol. 4.2 (Fall 2008): 125- 136. - G. Neelakantan.
379. Oates's 'Beasts.' *The Explicator*, 67.3 (Spring 2009): 224- 227. - Srirupa Chatterjee & G. Neelakantan.
380. Woman as Survivor in Oates's 'Rape: A Love Story'. *Notes on Contemporary Literature*, 39.4 (September 2009): 4-6 - Srirupa Chatterjee & G. Neelakantan
381. Research relationship as a facilitator of remoralization and self-growth: Postearthquake suffering and healing. *Qualitative Health Research*, 20, 479-495, [SAGE Journal], 2010 -Kumar Ravi Priya.
382. Child Workers in India: Context and Complexities. *Human Rights Review*, Volume 10, Number 2, 205-218. - Munmun Jha.
383. Whose English is it? Translating in a Neocolonial World. Special issue on Translation and other Issues of Apperceptions, the *Journal of the Dept of English and other Modern European Languages*, Vishvabharati, Santiniketan: Vol IV 2009: 38 - 52 - Mini Chandran.
384. Arthāpatti: A Critical Examination. *Journal of Indian Council of Philosophical Research*, Volume XXV, Number 4, October - December, 2008 - Nirmalya Guha
385. On Communicating Meaning: Formal Semantics and Śabdanirnaya - to be published in *Directions (IIT Kanpur Magazine)* - Nirmalya Guha.
386. Illness cognition, coping and health related quality of life: A study of Myocardial infarction patients. *Indian Journal of Community Psychology*, 5(2), 2009, 176-190, R. Singh and S. Dixit.

387. Perceived illness severity among cancer patients: An exploration of dimensions of PIS and construction of a scale. *Journal of Indian Health Psychology*, 3(2),2009, 111-124. - A. Mehrotra and S. Dixit.
388. Financial Analysis of the ICT Industry; A regulatory perspective. *Journal of Infrastructure Development*, Volume 1, No. 1, June 2009, [Sage publication]. 2009 - Somesh K. Mathur.
389. The ICT Sector Across Countries: A Regulatory Perspective Using DEA and Malmquist Index. *The Handbook of Technology Management*, Volume I, Part II. New Jersey: John Wiley, 2010 - Somesh K Mathur.
390. De-Scribing the Indian Woman: New Autobiographical Ventures by Indian Women Writers in English. *Geminal: Journal of the Department of Germanic and Romance Studies (University of Delhi)*. Vol. 5 (2008-09): 46-55. - Suchitra Mathur.
391. Liberalizing research in Science and Technology: Studies in science policy. *Journal of Sociology of Science and Technology*, April, pp. 178-190, 2010 and *Journal of the Institute for History of Science and Technology (IHST)*, The Russian Academy of Sciences, Saint Petersburg, Nestor History Publishing House. - Binay K Pattnaik.
392. Locating Presidential Power: A Model of Presidential Leadership in U.S. Lawmaking *Journal of Theoretical Politics*, forthcoming - Vimal Kumar.

## Chemistry

393. Role of Spacer in single-or two-step FRET: studies in presence of two connected cryptands with properly chosen fluorophores, *Dalton. Trans.* (2010), 4146, K. K. Sadhu, S. Chatterjee, S. Sen and P. K. Bharadwaj.
394. Effect of Bulkiness on Reversible Substitution Reactions at Mn(II) Center with Concomitant Movement of the Lattice DMF: Observation Through Single-Crystal to Single-Crystal Fashion, *Chem. Eur. J.* 16 (2010), 5070, M. C. Das and P. K. Bharadwaj.
395. Synthesis, Structure and Magnetic Properties of Co(II) Coordination Polymers from a New Tripodal Carboxylate Ligand: Weak Ferromagnetism and Metamagnetism, *Cryst. Growth Des.* 10 (2010), 283, P. Lama, A. Aijaz, E. C. Sañudo and P. K. Bharadwaj.
396. Diversity of binding of sulfate and nitrate anions with laterally asymmetric aza Cryptan, *Cryst. Engg. Comm.* 12 (2010), 413, M. C. Das, S. K. Ghosh, and P. K. Bharadwaj.
397. A Porous Coordination Polymer Exhibiting Reversible Single-Crystal to Single-Crystal Substitution Reactions at Mn(II) Center by Nitrile Guest Molecules, *J. Am. Chem. Soc.* 131, (2009), 10942, M. C. Das and P. K. Bharadwaj.

398. Cryptand Cage: Perfect Skeleton for Transition Metal Induced Two-step Fluorescence Resonance Energy Transfer, *Chem. Commun.* (2009), K. K. Sadhu, S Banerjee, A Datta and P. K. Bharadwaj.
399. A Cryptand Based Chemodosimetric Probe for Naked Eye Detection of Mercury(II) Ion in Aqueous Medium and Its Application in Live Cell Imaging, *Chem. Commun.* (2009), 4417, A.Jana, J. S. Kim, H. S. Jung and P. K. Bharadwaj.
400. Ag(I) Induced Emission with Azines Having Donor-Acceptor-Donor Chromophore, *Dalton. Trans.* (2009), 5683, D. Ray, E. S. S. Iyer, K. K. Sadhu and P. K. Bharadwaj.
401. Halide Binding in Laterally Non-symmetric Aza-Oxa Cryptands Through N/O/C–H...halide Interactions with Characterization of Small Water Clusters, *Dalton. Trans.* (2009), 6496, M. C. Das, S. K. Ghosh, and P. K. Bharadwaj.
402. Coordination polymers with pyridine-2,4,6-tricarboxylic acid and alkaline-earth/lanthanides/transition metals: Synthesis and X-ray structures, *Dalton. Trans.* (2009), 1644, M. C. Das, S. K. Ghosh, E. C. Sanudo and P. K. Bharadwaj.
403. A Diamondoid Three Dimensional Metal-Organic Framework Showing Structural Transformation with Guest Molecules, *Cryst. Growth Des.* 9, (2009), 4480, A.Aijaz, E. Barea and P. K. Bharadwaj.
404. Supramolecular association of water molecules forming discrete clusters in the voids of coordination polymers, *Curr. Opin. Solid State Mater. Sci.* 13, (2009), 76 M. C. Das, S. B. Maity and P. K. Bharadwaj.
405. A Dicarboxylate with Asymmetric Coordination Ability: Characterization of a Two Dimensional Coordination Polymer of Copper(II) Exhibiting Spin Canting, *Inorg. Chim Acta.* 362, (2009), 4246, A Aijaz, E. C. Sanudo and P. K. Bharadwaj.
406. Helicity-induced two-layered Cd(II) coordination polymers built with different kinked dicarboxylates and an Polyhedron. 28, (2009), 3923, organodiimidazole S. Neogi, M. K. Sharma, M. C. Das and P. K. Bharadwaj.
407. Acyclic Donor-Acceptor-Donor Chromophores for Large Enhancement of Two-Photon Absorption Cross Section in Presence of Mg(II), Ca(II) or Zn(II) Ions, D. Ray, A. Nag, D. Goswami and P. K. Bharadwaj, *J. Luminescence* 129, (2009), 256.
408. Knoevenagel Condensation and Cyanosilylation Reactions Catalyzed by an MOF Containing Coordinatively Unsaturated Zn(II) Centers, *J. Mol. Catal. A* 299, (2009), 1, S. Neogi, M. K. Sharma and P. K. Bharadwaj.
409. Mapping the Transformation  $[\text{Ru}^{\text{II}}(\text{CO})_3\text{Cl}_2]_2 \leftrightarrow [\text{Ru}_2(\text{CO})_4]^{2+}$ : Implications in Binuclear Water-Gas-Shift Chemistry *Chem. Eur. J.* 2010, 16, 2574, Moumita Majumdar, Arup Sinha, Tapas Ghatak, Sanjib K. Patra, Nabanita Sadhukhan, S. M. Wahidur Rahaman, and Jitendra K. Bera.
410. Multifaceted Coordination of Naphthyridine - Functionalized N-Heterocyclic Carbene: A Novel 'Ir<sup>III</sup>(C<sup>^</sup>N)(C<sup>^</sup>C)' Compound and Its Evaluation as Transfer

- Hydrogenation Catalyst, *Inorg. Chem.*, 2009, 48 (23), 11114-11122, Arup Sinha, S. M. Wahidur Rahaman, Mithun Sarkar, Biswajit Saha, Prosenjit Daw and Jitendra K. Bera.
411. Multi-site coordination of ferrocenylamido-naphthyridine conjugates [(5,7-dimethyl-1,8-naphthyridin-2-yl)amino]carbonyl]ferrocene and 1,10-bis[(5,7-dimethyl-1,8-naphthyridin-2-yl)amino]carbonyl]ferrocene, *J. Organomet. Chem.* 2010, 695, 67-73, Nabanita Sadhukhan, Arup Sinha, Raj K. Das, Jitendra K. Bera.
412. 1,8-Naphthyridine Revisited: Applications in Dimetal Chemistry, *Eur. J. Inorg. Chem.* 2009, 4023-4038, Jitendra K. Bera, Nabanita Sadhukhan, and Moumita Majumdar.
413. Aqueous basic solutions: Hydroxide solvation, structural diffusion, and comparison to the D. Marx, hydrated proton, *Chem. Rev.* 110, 2174 (2010), A. Chandra and M. Tuckerman.
414. Pressure effects on diffusion in liquid ammonia: A simulation study using a combination of isobaric-isothermal and microcanonical molecular dynamics, *Ind. J. Phys.* 83, 91 (2009), S. Chowdhuri, D. Chakraborty and A. Chandra.
415. First Example of a Hydrated Monoorganotin Cation: Synthesis and Structure of  $[(\text{PhSn}(\text{H}_2\text{O})_3(\mu\text{-OH}))_2][\{1,5\text{-C}_{10}\text{H}_6\text{-}(\text{SO}_3)_2\}_2]$ , *Organometallics* 2009, 28, 42-44, V. Chandrasekhar, P. Singh.
416. Synthesis, Structure, and Magnetism of Heterobimetallic Trinuclear Complexes  $\{[\text{L}(2)\text{Co}(2)\text{Ln}][\text{X}]\}$  [Ln = Eu, X = Cl; Ln = Tb Dy, Ho, X = NO<sub>3</sub>; LH<sub>3</sub> = (S)P[N(Me)N=CH-C<sub>6</sub>H<sub>3</sub>-2-OH-3-OMe](3)]: A 3d-4f Family of Single-Molecule Magnets, *Inorg. Chem.* 2009, 48, 1148-1157, V. Chandrasekhar, B. Murugesapandian, J. J. Vittal, R. Clerac.
417. Reactions of 3,5-Pyrazoledicarboxylic Acid with Organotin Chlorides and Oxides. Coordination Polymers Containing Organotin Macrocycles, *Organometallics* 2009, 28, 2096-2106, V. Chandrasekhar, R. Thirumoorthi.
418. A Nonanuclear Organostiboxane Cage, *Organometallics* 2009, 28, 2637-2639, V. Chandrasekhar, R. Thirumoorthi.
419. Dinuclear Copper(II) Phosphonates Containing Chelating Nitrogen Ligands: Synthesis, Structure, Magnetism and Nuclease Activity, *Eur. J. Inorg. Chem.* 2009, 1640-1646, V. Chandrasekhar, T. Senapati, R. Clerac.
420. A Modular Ligand Design for Cation Sensors: Phosphorus-supported Pyrene-Containing Ligands as Efficient Cu(II) and Mg(II) Sensors, *Tetrahedron*, 2009, 65, 4540-4546, V. Chandrasekhar, M. D. Pandey, P. Bag, S. Pandey.
421. Assembly of diverse structural types of organotellurium compounds in the reactions of (4-MeO-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>TeO with pyridine carboxylic acid, *J. Organomet. Chem.* 2009, 694, 2628-2635, V. Chandrasekhar, Arun Kumar.
422. Tri- Tetra- and Hexanuclear Copper (II) phosphonates Containing N-Donor Chelating Ligands: Synthesis, Structure, Magnetic Properties and Nuclease



- Activity, *Inorg. Chem.* 2009, 48, 6192-6204, V. Chandrasekhar, T. Senapati, E. C. Sañudo, R. Clérac.
423. Tellurasiloxane cages containing  $\text{Te}_6\text{Si}_4\text{O}_{12}$  and  $\text{Te}_6\text{Si}_6\text{O}_{15}$  frameworks, *Inorg. Chem.* 2009, 48, 6236-6241, V. Chandrasekhar, R. Thirumoorthi.
424. Self-Assembly of Organostannoxanes: Formation of Gels in Aromatic Solvents, Duthie, *Organometallics* 2009, 28, 4593-4601, V. Chandrasekhar, K. Gopal, P. Singh, R. Suriya Narayanan, A.
425. Phosphorus-Supported Ligands for the Assembly of Multimetal Architectures, *Acc. Chem. Res.* 2009, 42, 1047-62, V. Chandrasekhar, B. Murugesapandian.
426. A Hexadecameric Copper(II) Phosphonate Cage, *Dalton Trans.* 2009, 6712-6714, V. Chandrasekhar and L. Nagarajan.
427. A Pentahydrated Diorganotin Cation. Cocrystallization of  $[\{\text{n-Bu}_2\text{Sn}(\text{H}_2\text{O})_5\}][\text{CF}_3\text{SO}_3]_2$  and  $[\{\text{n-Bu}_2\text{Sn}(\text{BPDO-II})_2(\text{H}_2\text{O})_2\}][\text{CF}_3\text{SO}_3]_2$ , *Organometallics* 2009, 28, 4974-4978, V. Chandrasekhar, P. Singh.
428. Phosphorus-Supported Multidentate Coumarin-Containing Fluorescence, Sensors For  $\text{Cu}^{2+}$ , *Tetrahedron*, 2009, 65, 9876-9883, V. Chandrasekhar, M. D. Pandey, P. Bag.
429. Organostannoxane-Supported Palladium Nanoparticles. Highly Efficient Catalysts for Suzuki-Coupling Reactions, *Organometallics* 2009, 28, 5883-5888, V. Chandrasekhar, R. Suriya Narayanan, P. Thilagar.
430. Halide-Capped Tellurium-Containing Macrocycles, *Inorg. Chem.* 2009, 48, 10330-10337, V. Chandrasekhar, R. Thirumoorthi.
431. Enantioselective Syntheses of Morpholines and Their Homologues via  $\text{S}_{\text{N}}2$ -Type Ring Opening of Aziridines and Azetidines with Haloalcohols, *J. Org. Chem.*, 2009, 74, 7013-7022, Manas K. Ghorai, Dipti Shukla and Kalpataru Das.
432.  $\text{BF}_3 \cdot \text{OEt}_2$ -Mediated Highly Regioselective  $\text{S}_{\text{N}}2$ -Type Ring-Opening of N-Activated Aziridines and N-Activated Azetidines by Tetraalkylammonium Halides, *J. Org. Chem.*, 2010, 75, 137-151, Manas K. Ghorai, Amit Kumar and Deo Prakash Tiwari.
433. A systematic study of fluorescence enhancement under single-photon pulsed illumination, *Journal of Fluorescence: Rapid Comm.* 19(5), 931-937 (2009), Arijit Kumar De and Debabrata Goswami.
434. Control of laser induced molecular fragmentation of n-propyl benzene using chirped femtosecond laser pulses, *Chemical Physics*, 360(1-3), 47-52 (2009), Tapas Goswami, S. Karthick Kumar, Aveek Dutta, and Debabrata Goswami.
435. Visible 20-femtosecond pulse generation by double pass non-collinear optical parametric amplifier (NOPA), *Current Science*, 96(11), 1496-1500 (2009), S.K. Karthick Kumar, T. Goswami, I. Bhattacharya and Debabrata Goswami.
436. Spectrally resolved femtosecond photon echo spectroscopy of Rhodamine dyes and metallo-porphyrins, *Chemical Physics Letters*, 476(1-3), 31-36 (2009), S.K. Karthick Kumar, T. Goswami, A. Kumar, and Debabrata Goswami.

437. A simple twist for signal enhancement in non-linear optical microscopy, *Journal of Microscopy*, Rapid Publication, 235(2), 119-123 (2009), Arijit Kumar De and Debabrata Goswami.
438. Solvent effect on Two-Photon Absorption and Fluorescence of Rhodamine dyes, *Journal of Photochemistry and Photobiology A: Chemistry*, 206(2-3), 188-197 (2009), Amit Nag and Debabrata Goswami.
439. Stable Optical Trapping of Latex Nanoparticles with Ultrashort Pulsed Illumination, *Applied Optics*, 48(31) G33-G37 (2009), Arijit Kumar De, Debjit Roy, and Debabrata Goswami.
440. Controlling molecular fluorescence in laser-scanning microscopy, *European Biophysics Journal*, 38(S 1), S71 (2009), Arijit Kumar De and Debabrata Goswami.
441. Ultrafast pulse pair induced control in multiphoton fluorescence imaging, *Journal of Biomedical Optics*, 14(6), 064018 (2009), Arijit Kumar De and Debabrata Goswami.
442. Probing the ultrafast solution dynamics of a cyanine dye in DCM solvent interfaced with water, *Journal of Physical Chemistry B*, 113(51), 16332-16336 (2009), T. Goswami, S.K. Karthick Kumar, A. Dutta and Debabrata Goswami.
443. Applying Genetic Algorithm optimization to a folded geometry acousto-optic modulated spatial pulse shaper, *Reviews of Scientific Instruments*, 81, 013101 (2010), Amit Nag, Prasad Chapekar, and Debabrata Goswami.
444. Biomineralization of N, N-Dimethylformamide by paracoccus so. Strain DMF J. *Hazardous materials*. 171, (2009) 268-272, Shivswaroop, Sughosh and Gurunath R.
445. Designed modulation of interactions in the crystal structures of a series of 4-benzylidene imidazolin-5-ones, *J. Chemical Sciences* 121, 973-982. (2009), B. K. Rajbhongshi and Gurunath R.
446. An efficient method for zinc mediated reduction of norbornyl  $\alpha$ -diketones in [bmim][BF<sub>4</sub>]:H<sub>2</sub>O, *Archivoc* 2009 (vii), 222, F. A. Khan, Ch. Sudheer.
447. Synthesis and electrochemical signature of novel norbornyl ferrocene hybrids, *Synthesis*, 2009, 2773, F. A. Khan, S. K. Upadhyay.
448. Synthesis of 9-oxa-noradamantane derivative, an aesthetically pleasing 'oxa-basket', *Tetrahedron Lett.* 2009, 50, 5751, F. A. Khan, Ch. Nageswara Rao.
449. An Efficient Synthesis of Substituted meta-Halophenols and their Methyl Ethers; An Insight into the Reaction Mechanism, *Eur. J. Org. Chem.*, 2010, F. A. Khan, Sumit Choudhury.
450. Synthesis and electrochemical properties of substituted para-benzoquinone derivatives, *Tetrahedron Lett.* 2010, 51, 2541, F. A. Khan, Sumit Choudhury.
451. Engineering of Ternary Co-Crystals Based on Differential Binding of Guest Molecules by a Tetraarylpyrene Inclusion Host, *Chem. Comm.* 2010, Moorthy, J. N.; Natarajan, P.; Venugopalan, P.

452. Non-Doped Pure-Blue OLEDs Based on Amorphous Phenylenevinylene-Functionalized Twisted Bimesitylenes, Huang, D-F.; Chow, T. J., *J. Org. Chem.* 2010, 75, 2599, Moorthy, J. N.; Natarajan, P.; Venkatakrisnan, P.; Natarajan, P.
453. Highly enantioselective aldol reactions using N-arylprolinamides with enhanced acidity and double H-bonding potential, *Tetrahedron. Lett.* 2010, 51, 912 Saha, S. Moorthy, J. N.
454. Abundant Lattice Inclusion Phenomenon with Sterically Hindered and Inherently Shape-Selective Tetraarylpyrenes, *J. Org. Chem.* 2009, 74, 8566, Moorthy, J. N.; Natarajan, P.; Venugopalan, P.
455. IBX-I<sub>2</sub> Redox Couple for Facile Generation of IOH and I<sup>+</sup>: Expedient Protocol for Iodohydroxylation of Olefins and Iodination of Aromatics, *J. Org. Chem.* 2009, 74, 6287, Moorthy, J. N. Senapati, K.; Singhal, N.
456. Modulation of Spectrokinetic Properties of o-Quinonoid Reactive Intermediates by Electronic Factors: Time-Resolved Laser Flash and Steady-State Photolysis Investigations of Photochromic 6- and 7-Arylchromenes, *Chem. Eur. J.* 2009, 15, 4289, Moorthy, J. N.; Koner, A. L.; Samanta, S.; Roy, A.; Nau, W. M.
457. Blue to green shifted fluorescence in inter to intra molecular H-bonded di-bis-imidaza-2-olyl-benzene, *Chemical Communications*, issue 29, 4426(2009), Bijayalakshmi Jena and S.Sundar Manoharan\*.
458. Selectivity and specificity of benzheterazoles for POLED applications, *J. Phys. Chem.C* 113, 20942, 2009, Bijayalakshmi Jena and S.Sundar Manoharan and Sattey Prahash.
459. Arresting Green emission defect in Fluorene based Blue emitting OLEDs: Rational synthesis of donor acceptor molecules, *Organic Letters*, 11(6), 2009, 1289-1292, Atul Goel, S. Prakash, B.L. Jena, R.S. Anand and S.Sundar Manoharan.
460. Selective white light emission from cis & trans benzthiazolyl ethylene, *Chemical Physics Letters*, 473, 184(2009), Q. Mohammad, A.Khan and S.Sundar Manoharan.
461. Nanosized Polytetrafluoroethylene films as organic insulating barrier in Fe/PTFE/Fe devices, *Jpn. J of Appl. Phys.*, 48 (2009) 103001, Solomon S. Manoharan and Vimlesh Chandra.
462. Moessbauer Spectroscopic study of Fe-doped ZrO<sub>2</sub> synthesized by microwave route, *Hyperfine Interactions*, 188,43(2009), T.R. Sahoo, S.Sundar Manoharan, S.Kurian, and N.S. Gajbhiye.
463. Diphenoxo-Bridged Co<sup>II</sup> and Zn<sup>II</sup> Complexes of Tripodal N<sub>2</sub>O<sub>2</sub> Ligands: Stabilization of M<sup>II</sup>-Coordinated Phenoxyl Radical Species, *Eur. J. Inorg. Chem.* 2010, 1032-1042, A.Mukherjee, F. Lloret, and R. N. Mukherjee.
464. Molecular Squares of Ni<sup>II</sup> and Cu<sup>II</sup>: Ferromagnetic Exchange Interaction Mediated by Syn-Anti Carboxylate-Bridging, *Dalton Trans.* 2009, 9759-9769, H. Arora, F. Lloret, and R. N. Mukherjee.

465. Spin-transition in  $[\text{Fe}^{\text{II}}(\text{L}^5)_2][\text{ClO}_4]_2$  [ $\text{L}^5 = 2\text{-}[3\text{-}(2'\text{-pyridyl})\text{pyrazol-1-ylmethyl}](1\text{-methylimidazole})$ ]: A Further Example of Coexistence of Features Typical for Disorder and Cooperativity, *Dalton Trans.* 2009, 7462-7472 V. Mishra, H. Mishra, R. N. Mukherjee, E. Codjovi, J. Linarès, J.-F. Létard, C. Desplanches, C. Baldé, C. Enachescu, and F. Varret.
466. Syntheses, X-ray Structures, and Physicochemical Properties of Phenoxo-Bridged Dinuclear Nickel(II) Complexes: Kinetics of Transesterification of 2-Hydroxypropyl-p-nitrophenylphosphate, *Inorg. Chem.* 2009, 48, 7544-7556, S. Mandal, V. Balamurugan, F. Lloret, and R. N. Mukherjee.
467. One-Dimensional Coordination Polymers of  $\text{Mn}^{\text{II}}$ ,  $\text{Cu}^{\text{II}}$ , and  $\text{Zn}^{\text{II}}$  Supported by Carboxylate-Appended (2-Pyridyl) alkylamine Ligands. Structure and Magnetism, *Eur. J. Inorg. Chem.* 2009, 3317-3325, H. Arora, F. Lloret, and R. N. Mukherjee.
468. Generation and Properties of  $\text{Co}^{\text{I}}/\text{Ni}^{\text{I}}$  Species Supported by a Tetradentate Pyridylpyrazole Ligand: Crystal Structures of  $\text{Co}^{\text{III}}$ -Dialkyl Complexes, V. Mishra, H. Mishra and R. N. Mukherjee, *Eur. J. Inorg. Chem.* 2009, 2973-2980.
469. Opposite Effects of Interactions and Disorder on the Switching Properties of the Spin Transition Compound  $[\text{Fe}^{\text{II}}(\text{L})_2][\text{ClO}_4]_2 \cdot \text{C}_7\text{H}_8$ , *Polyhedron* 2009, 28, 1678-1683, H. Mishra, V. Mishra, F. Varret, R. N. Mukherjee, C. Balde, C. Desplanches and J.-F. Létard.
470. One-Dimensional  $\text{Co}^{\text{II}}$  and  $\text{Cu}^{\text{II}}$  Coordination Polymers and Discrete  $\text{Cu}^{\text{II}}_4$  Complex of Carboxylate-Appended (2-Pyridyl)alkylamine Ligands: Spin-Canting and Anti-Ferromagnetic Coupling, *Inorg. Chem.* 2009, 48, 1158-1167, H. Arora, F. Lloret, and R. N. Mukherjee.
471. Six-coordinate  $\text{Co}^{\text{III}}$  and Four-Coordinate  $\text{M}^{\text{II}}$  ( $\text{M} = \text{Co}, \text{Zn}$ ) Mixed-Valence Dimers Supported by a Deprotonated Pyridine Amide Ligand: Magnetism of a  $\text{Co}^{\text{III}}\text{Co}^{\text{II}}$  Complex and C-H...O/Cl/Br Interactions, *New J. Chem* 2009, 33, 893-901, W. Jacob, H. Mishra, S. Pandey, F. Lloret and R. N. Mukherjee.
472. Relative Stability of Half-Sandwich  $\eta^6\text{-Benzene}$  Ru(II) Complexes of Tridentate (2-Pyridyl)alkylamine Ligands of Varying Chelate Ring-Size: Nucleophilic Addition of Hydride ion onto the Benzene Ring, *Inorg. Chim. Acta* 2009, 362, 483-490, H. Mishra, A. K. Patra, and R. N. Mukherjee.
473. Spin-Transition in Nearly Cubic Site in  $[\text{Fe}^{\text{II}}(\text{L})_3][\text{PF}_6]_2$ , Hyperfine Interactions 2009, 188, 71-78., V. Mishra, R. N. Mukherjee, J. Linares, E. Codjovi, F. Varret, and M. Lawson-Daku.
474. Design, Structure, and Properties of Functional Metal-Ligand Inorganic Modules, (Special thematic issue on Crystal Engineering: Structure, Design and Function), *Curr. Opin. Solid State and Mat. Sci.* 2009, 13, 54-67, A. K. Sharma, A. De, and R. N. Mukherjee.
475. Discrete and 1D Coordination Polymeric Chloro-Bridged Copper(II) Dimers Exhibiting Ferro- and Antiferromagnetic Exchange Coupling: Magneto-

- Structural Correlations and Non-Covalent Interactions, *Inorg. Chim. Acta* 2009, 362, 27-37, S. Mandal, F. Lloret, and R. N. Mukherjee.
476. Magnetostructural Dynamics from Hubbard-U Corrected Spin-Projection [2Fe-2S] Complex in Ferredoxin, *J. Chem. Theor. Comput.*, 6, 2010, 569-575, N. N. Nair, J. Ribas-Arino, V. Staemmler, D. Marx
85. Peptide Synthesis in Aqueous Environments: The Role of Extreme Conditions on Peptide Bond Formation and Peptide Hydrolysis, *J. Am. Chem. Soc.*, 131, 2009, 13668-13675, E. Schriener, N. N. Nair, D. Marx.
477. Synthesis, Structure and Photocatalytic Activity of a Remarkably Bent, Cofacial Ethene-linked Diiron (III)  $\mu$ -oxobisporphyrin, *Inorg. Chim. Acta*. 2010, ASAP. (Prof. A. Chakravorty special issue), S. K. Ghosh, R. Patra and S. P. Rath\*.
478. Synthesis and Characterization of anti-bisFe(III) Porphyrins, syn-bisFe(III)- $\mu$ -oxo Porphyrin and syn-bisFe(III)- $\mu$ -oxo Porphyrin Cation Radical, *Inorg. Chem.* 2010, 49, 3449, S. K. Ghosh, R. Patra and S. P. Rath.
479. Axial Ligand Orientations in a Distorted Porphyrin Macrocycle: Synthesis, Structure and Properties of Low-Spin bis (Imidazole) Fe(III) and Fe(II) porphyrinates, *Inorg. Chem.* 2010, 49, 2057-2067, R. Patra, A. Chaudhary, S. K. Ghosh and S. P. Rath\*.
480. Cyanide binding to iron in a highly distorted porphyrin macrocycle: Synthesis and structure of low-spin Fe(II) dicyano porphyrin, *Inorg. Chem. Commun.* 2009, 515-519, R. Patra and S. P. Rath\*.
481. Pd(0)/C-catalyzed cross-couplings of acyl chlorides with triarylbi-muths as atom-efficient sub-stoichiometric multi-coupling reagents, *Tetrahedron Letters* 2009, 50, 4268-4271, M.L.N. Rao, D. N. Jadhav, V. Venkatesh.
482. Atom-efficient vinylic arylations with triarylbi-muths as substoichiometric multicoupling reagents under palladium catalysis, *European Journal of Organic Chemistry* 2009, 4300-4306, M. L. N. Rao, D. N. Jadhav, V. Venkatesh.
483. Arylations of allylic acetates with triarylbi-muths as atom-efficient multi-coupling reagents under palladium catalysis, *Tetrahedron Letters*, 2009, 50, 5757-5761, M. L. N. Rao, D. Banerjee, S. Giri.
484. Pd-catalyzed synthesis of  $\alpha$ -aryl ketones through couplings of  $\alpha$ -arylacetyl chlorides with triarylbi-muths as multi-coupling nucleophiles, *Tetrahedron Letters*, 2009, 50, 6133-6138, M. L. N. Rao, S. Giri, D. N. Jadhav.
485. Pd-Catalyzed efficient cross-couplings of 3-iodochromones with triarylbi-muths as substoichiometric multicoupling organometallic nucleophiles, *Synlett* 2009, 2597-2600, M. L. N. Rao, V. Venkatesh, D. N. Jadhav.
486. Carbon Nanocubes and Nanobricks from Pyrolysis of Rice, *J. Nanosci. Nanotechnol.* 2010, 10, 4064 - 4067, Sumit Kumar Sonkar, Manav Saxena, Mitali Saha and Sabyasachi Sarkar.

487. Effect of Increasing Protein Percentage Feed on the Performance and Carcass Characteristics of the Broiler Chicks, *Asian J. of Poultry Science*, 2010, 4, 53-59, N.Parvin, T.K Mandal, V. Saxena, S. Sarkar, A.K. Saxena.
488. Activation of Aerial Oxygen to Superoxide Radical by Carbon Nano Tube of Aerosol Trapped in Indoor Spider Web, *Curr. Sci.*, 2009, 97, 1227-1230, Sumit Kumar Sonkar, Shweta Tripathi and Sabyasachi Sarkar.
489. Water soluble carbon nanotubes affect growth of the common gram (*Cicer arietinum*). *Nature Precedings*, Tripathi, S., Sonkar, S. K., Kumar, A., Khan, M.Y., and Sarkar, S.
490. Oxygen-Cobalt Chemistry Using a Porphyrinogen Platform, *Inorg. Chem.* 2009, 48(14), 6362-6370, Dibyendu Bhattacharya, Suman Maji, Kuntal Pal and Sabyasachi Sarkar.
491. Mixed Ligand Tris Chelated Complexes of Mo(IV) and W(IV) : A Comparative Study, *Inorg. Chim. Acta.* 2009, 362(10), 3493-3501, Amit Majumdar and Sabyasachi Sarkar.
492. NO<sub>2</sub>-Mediated meso-Hydroxylation of Fe (III) Porphyrin, *Inorg. Chem.*(2009), 48(5), 1790-1792, Abhilash G.J., Jagannath Bhuyan, Pinky Singh, Suman Maji, Kuntal Pal and Sabyasachi Sarkar.
493. Oxidation of Phosphine by Sulfur or Selenium Involving a Catalytic Cycle in the Interconversion of Monomer and Tetramer Forms of Copper-maleonitriledithiolate Complexes, *J. Chem. Sci.* 2009, 121(1), 37-41, Biplab K. Maiti and Sabyasachi Sarkar.
494. Necessity of Fine Tuning in Mo(IV) Bis(Dithiolene) Complexes to Warrant Nitrate Reduction, *Dalton Trans.*(2009) 11, 1927-1938, Amit Majumdar, Kuntal Pal and Sabyasachi Sarkar.
495. Ultrafast dynamics of malachite green at the air/water interface studied by femtosecond time-resolved electronic sum frequency generation (TR-ESFG): an indicator for local viscosity, *Faraday Discussions* 2010, 145, 411, Pratik Sen, Shoichi Yamaguchi, Tahei Tahara.
496. Highly Enantioselective Organocatalytic syn- and anti-Aldol Reactions in Aqueous Medium, *Adv. Synth. Catal.* 351 (2009), 1284-1288, Monika Raj, Gopal S. Parashari, and Vinod K. Singh.
497. Organocatalytic reactions in water, *Chem. Commun.*, 2009, 6687-6703, Monika Raja and Vinod K. Singh.
498. Highly Efficient Small Organic Molecules for Enantioselective Direct Aldol Reaction in Organic and Aqueous Media, *J. Org. Chem.* 2009, 74, 4289-4297, Monika Raj Vishnumaya and Vinod K. Singh.
499. Enantioselective Henry reaction catalyzed by C<sub>2</sub>-symmetric chiral diamine-copper(II) complex, *Org. Biomol. Chem.*, 7 (2009), 3156-3162, Sermadurai Selvakumar, Dhanasekaran Sivasankaran and Vinod K. Singh.

500. PPh<sub>3</sub>/halogenating agent-mediated highly efficient ring opening of activated and non-activated aziridines, *Tetrahedron Letters* 50 (2009) 363-365, Manoj Kumar, Sanjay K. Pandey, Shikha Gandhi and Vinod K. Singh.
501. A facile approach towards synthesis of verbalactone and biologically active d-lactones using D-glucose, *Tetrahedron* 65 (2009) 8677-8682, A.Garg and Vinod K. Singh.
502. Decoding the dynamical information embedded in highly excited vibrational eigenstates: state space and phase space viewpoints, *J. Phys. Chem A* 113, 1717 (2009), P. Manikandan, S. Semparithi, and Srihari Keshavamurthy.
503. Local phase space control and interplay of classical and quantum effects in dissociation of a driven Morse oscillator, *Phys. Rev. A* 79, 033416 (2009), A.Sethi and Srihari Keshavamurthy.
504. Bending of peptide nanotubes by focused electron and ion beam, *Soft Matter* 2009, 5, 1789-1791, Gour, N., Verma, S.\*
505. Silver-adenine metallamacrocyclic hexamer, *Inorg. Chem.* 2009, 48, 6350-6352, Kumar, J., Verma, S.\*
506. Fabrication of platinum nanopillars on peptide-based soft structures using a focused ion beam, *Biofabrication* 2009, 1, 025002-025007, Joshi, K.B., Singh, P., Verma, S.\*
507. Synthesis and characterization of nucleobase-carbon nanotube hybrids, *J. Am. Chem. Soc.* 2009, 131, 13555-13562, Singh, P., Kumar, J., Maria Toma, F., Raya, J., Prato, M., Fabre, B., Verma, S.,\* Bianco, A.\*
508. Synthesis and ultrastructural characterization of ferrocenylated soft structures, *Tetrahedron Lett.* 2010, 51, 856-859, Mondal, S., Ghosh, S., Verma, S.\*
509. Silver-guided excimer emission in an adenine-pyrene conjugate: Fluorescence lifetime and crystal studies *Inorg. Chem.* 2010, 49, 2020-2022, M. D. Pandey, A. K. Mishra, V. Chandrasekhar, Sandeep Verma.
510. The many facets of adenine: Coordination, crystal patterns and catalysis, *Acc. Chem. Res.* 2010, 43, 79-91, Sandeep Verma,\* Mishra, A.K., Kumar, J.
511. Decanuclear copper framework supported by a tripodal adenine ligand, *Inorg. Chem.* 2010, 49, 3691-3693, A. K. Mishra, Sandeep Verma.
512. Azidation of anomeric nitro sugars: Application in the synthesis of spiroaminals as glycosidase inhibitors, *Tetrahedron Lett.* 2010, 51, 2519-2524, A. P. John Pal and Yashwant D. Vankar.
513. A concise route to (-)-Shikimic Acid and (-)-5-epi-Shikimic Acid, and their Enantiomers via Barbier Reaction and Ring-Closing Metathesis, *Tetrahedron Lett.* 2009, 50, 6951-695, Pavan K. Kancharla, Venkata Ramana Doddi, Hariprasad Kokatla and Yashwant D. Vankar.
514. Intramolecular ketonitrone-olefin cycloaddition reaction: Direct and stereocontrolled synthesis of nitrogenated quaternary centered aminocyclopentitols as galactosidase inhibitors, *Tetrahedron Lett.* 2009, 50,

- 5827-5830, Y. Suman Reddy, P. Kadigachalam, Venkara Ramana Doddi and Yashwant D. Vankar.
515. Regio- and stereocontrolled selective debenzoylation and substitution reactions of C-2 formyl glycols. Application in the synthesis of constrained  $\alpha$ -sugar amino acids, *J. Org. Chem.* 2009, 74, 5349-5355, G. K. Rawal, Shikha Rani, Nitee Kumari, and Yashwant D. Vankar.
516. Synthesis and glycosidase-inhibitory activity of novel polyhydroxylated quinolizidines derived from D-glycols, *Org. Biomol. Chem.* 2009, 7, 2104-2109, Nitee Kumari and Yashwant D. Vankar.

#### Mathematics and Statistics

517. Existence and regularity of solutions to nonlocal retarded differential equations, *Appl. Math. Comput.* 215(2009), No.7, 2413-2414, Dubey, Shruti A, D. Bahuguna.
518. Method of Kronecker product to advanced type Riccati differential systems with strongly coupled quadratic terms. *Comput. Math. Appl.* 58 (2009), No. 8, 1615-1622, D. Bahuguna, A. Ujlayan, D.N. Pandey.
519. An integro-differential parabolic problem with an integral boundary condition, *Math. Comput. Modelling* 50 (2009), No. 1-2, 123-131, Dabas, Jaydev, D. Bahuguna.
520. Effect of stochastic perturbation on a two species competitive model. *Nonlinear Anal. Hybrid Syst.* 3(2009), No. 3, 195-206, S. Abbas, D. Bahuguna, M. Banerjee.
521. On a solution to fractional order integro-differential equations with analytic semigroups. *Nonlinear Anal.* 71(2009), No.9, 3690-3698, D.N. Pandey, A. Ujlayan, D. Bahuguna.
522. Partial integro-differential equations with an integral boundary condition. *Dyn. Contin. Discrete Impuls. Syst. Ser. A Math. Anal.* 16(2009), *Differential Equations and Dynamical Systems*, suppl. Sl. 208-214, Dabas, Jaydev, D. Bahuguna.
523. A comparative study of numerical methods for solving an integro-differential equation. *Comput. Math. Appl.* 57(209), No.9, 1485-1493, D. Bahuguna, A. Ujlayan, D.N. Pandey.
524. ADM series solution to a nonlocal one-dimensional heat equation. *Int. Math. Forum* 4(2009), No. 9-12, 581-585, D. Bahuguna, A. Ujlayan, D.N. Pandey.
525. Non-autonomous nonlinear integro-differential equations with infinite delay, *Nonlinear Anal.* 70(2009), No.7, 2642-2653, D. Bahuguna, D.N. Pandey, A. Ujlayan.
526. Existence, uniqueness and stability analysis of allelopathic stimulatory phytoplankton model, *J. Math. Anal. Appl.* 367, (2010), 249-259, S. Abbas, Malay Banerjee, N. Hungerbuhler.



527. Self-Replication pattern in a ratio-dependent predator-prey model, *Math. Comp. Model*, 51, (2010), 44-52, Malay Banerjee.
528. Modelling the drug thereapy for HIV infection, *J. Biol.Syst.*, Vol.17, (2009), 213-223, P.K. Srivastava, Malay Banerjee, P. Chandra.
529. Effect of small time delay in a predatory-prey model within random environment, *Diff. Equ. Dyn. Sys.* 16,(2009), 225-250, T. Saha, Malay Banerjee.
530. Modelling the Dynamics of HIV and CD+4T Cells during primary infection; *Nonlinear Analysis: Real World Applications*, Vol. 11(2), 2010, 612-618, P.K. Srivastava, P. Chandra.
531. Mathematical Modeling and Analysis of the Spread of Carrier dependent Infectious Diseases: Effects of Cumulative density of Environmental factors; *International J. of Biomathematics*, Vol. 2(2), June (2009), 213-228, S. Singh, J.B. Shukla, P. Chandra.
532. Co-analytic, right-invertible operators are supercyclic, *Colloq. Math.* 119(2010), 137-142, S. Chavan.
533. Nonconforming spectral/hp element methods for elliptic systems, *Journal of Numerical Mathematics*, Vol.17,No.2(209),110-142, N.Kishore Kumar, P.Dutt, C.S. Upadhyaya.
534. Domain decomposition methods for hyperbolic problems, *Proc. Math. Sci., Indian Academy of Sciences*, Vol. 119, No.2 (209), 231-250, P. Dutt, S.S. Lamba.
535. Almost constrained Subspaces of Banach Spaces-II. *Houston J. Math.* 35(2009), No.3, 945-957, S. Dutta, P. Bandyopadhyay.
536. Linear stability analysis of gyrotactic plumes, *Phys. Fluids* 21, 081901(2009), S. Ghorai, R. Singh.
537. An epsilon-uniform Ritz-Galerkin finite element method for numerical solution of singularly perturbed delay differential equations, *International journal of pure and applied mathematics*, Vol. 55(2),(2009), 265-286, M.K. Kadalbajoo, A. S.Yadaw.
538. B-Spline collocation method for a singularly perturbed reaction-diffusion problem using artificial viscosity, *International J. of Computational Methods*, Vol. 6, No.1, (2009), 23-42, M.K. Kadalbajoo, P. Arora.
539. Parameter-uniform Ritz-Galerkin finite element method for two-parameter singularly perturbed boundary value problems, *International Journal of Pure and Applied Mathematics*, 55(2), (2009), 287-300, M.K. Kadalbajoo, A.S.Yadaw.
540. Space-time Galerkin least-squares method for the one-dimensional advection diffusion equation, *International Journal of Computer Mathematics*, Vol. 87, Issue 1 January (2010), 103-118, M.K. Kadalbajoo, P. Arora.
541. Taylor-Galerkin B-spline finite element method for the one-dimensional advection-diffusion equation, *Numerical Methods for Partial Differential Equations*, Early View (Articles online in advance of print), Published Online: 26 Jun 2009, M.K. Kadalbajoo, P. Arora.

542. A parameter-uniform Ritz-Galerkin finite element method for singularly perturbed delay differential equation with delay in convection term, *International Journal of Pure and Applied Mathematics*, 57(4), (2009), 449-474, M.K. Kadalbajoo, A.S. Yadaw.
543. Variable mesh finite difference method for self-adjoint singularly perturbed two point boundary value problems, *Journal of Computational Mathematics.*, M.K. Kadalbajoo, D. Kumar.
544. Smoothness of Coalescence Hidden-Variable Fractal Interpolation Surfaces, *Int. J. Bifurcation and Chaos: Appl. Sci. and Engg.* 19(7)(2009), 2321-2333, G.P. Kapoor, Srijanani Anurag Prasad.
545. Estimating the parameters of the generalized exponential distribution in presence of hybrid censoring, *Communications in Statistics - Theory and Methods*, Vol.38, No.12, (2009), D. Kundu, B. Pradhan.
546. Generalized linear failure rate distribution, *Communications in Statistics - Theory and Methods*, Vol.38, No.5,(2009), 642-660, D.Kundu, A. Sarhan.
547. A new class of weights exponential distributions, *Statistics*, Vol. 43, No.6,(2009), 621-634, D. Kundu, R.D. Gupta.
548. Discriminating among the log-normal, Weibull and generalized exponential distribution, *IEEE Transactions on Reliability*, Vol.58, No.3, (2009), 416-424, D. Kundu, A.K. Dey.
549. Estimating the parameters of the Marshall Olkin bivariate Weibull distribution by EM algorithm, *Computational Statistics and Data Analysis*, Vol. 53, No.4, (2009), 956-965, D. Kundu, A.K. Dey.
550. Discriminating between the log-normal and log-logistic distributions, *Communications in Statistics - Theory and Methods*, Vol. 39, (2010), 280-292. D. Kundu, A.K. Dey.
551. Estimating the parameters of Burst Type signals, *Statistics Sinica*, Vol. 20, 2, 733-746, D. Kundu, S. Nandi.
552. Introduction of shape/skewness parameters(s) in a probability distribution, *Journal of Probability and Statistical Sciences*, Vol.7, No.2,(2009), 153-171, D. Kundu, R.D. Gupta.
553. On progressively censored generalized exponential distribution, *TEST*, Vol. 18, No.3, (2009), 497-515, D. Kundu, B. Pradhan.
554. Point and Interval Estimation for a Simple Step-Stress Model with Random Stress-Change Time, *Journal of Probability and Statistical Sciences*, Vol.7, No.2,(2009), 113-126, D. Kundu, N. Balakrishnan.
555. On Progressively Censored Computing Risks Data For Weibull Distribution, *Computational Statistics and Data Analysis*, Vol. 53, (2009), 4083-4094, D. Kundu, B. Pareek, S. Kumar.
556. Bayesian Inference and Life Testing Plans for Generalized Exponential Distribution, *Science in China, Series A: Mathematics (Special volume*

- dedicated to Professor Z.D. Bai), Vol. 52, No.6, (2009), 1373-1388, D. Kundu, B. Pradhan.
557. Bivariate Birnbaum-Saunders distribution and associated inference, *Journal of Multivariate Analysis*, Vol. 101,(2010), 113-125, D. Kundu, N. Balakrishnan.
558. Estimation of  $R(X, Y)$  for three parameter Weibull distribution, *Statistics and Probability Letters*, Vol. 79,(2009), 1830-1846, D. Kundu, M.Z. Raqab.
559. Statistical analysis of exponential lifetimes under an adaptive type-II progressive censoring scheme, *Naval Research Logistics*, Vol. 56, (2009), 687-698, D. Kundu, H.K.T. Ng, P.S. Chan.
560. An efficient and fast algorithm for estimating the parameters of two-dimensional sinusoidal signals, *Journal of Statistical Planning and Inference*, Vol. 140, (2010), 153-168, D. Kundu, A. Prasad, N. Swagata.
561. Modeling and estimation of symmetric color textures, *Sankhya Series B*, Vol. 71, No.1, 30-54, D. Kundu, A. Prasad.
562. Modified Sarhan-Balakrishnan singular bivariate distribution, *Journal of Statistical Planning and Inference*, Vol. 140, (2010), 526-538, D. Kundu, R.D. Gupta.
563. Breaking the Symmetries of the Book Graph and the Generalized Petersen Graph, *SIAM J. Discrete Math.* Vol.23, 1200-1216, (2009), A.K. Lal, B. Bhattacharjya.
564. The distance matrix of a bidirected tree, *electronic, Journal of Linear Algebra*, Vol.18, 233-245, (2009), R.B. Bapat, A.K. Lal, S. Pati.
565. Relations between bilinear multipliers on  $\mathbb{R}^n, \mathbb{T}^n$  and  $\mathbb{Z}^n$ . *Proc. Indian Acad Sciences*, (2009), D. Bose, S. Madan, P. Mohanty, S. Srivastava.
566. The theta ideal, dense submodules and the forcing linearity number for a multiplication module, *Beitrag zur Algebra und Geometrie*, 50(2), (2009), 589-602, A.K. Maloo, A. Gaur.
567. Optimal allocation of active spares in series systems and comparison of component and system redundancies. *J. Appl. Probab.* 46(2009), No.1, 19-34, N. Misra, I.D. Dhariyal, N. Gupta.
568. Stochastic comparisons of multivariate frailty models. *J. Statist. Plann. Inference* 139(2009), No.6, 2084-2090, N. Misra, N. Gupta, R.D. Gupta.
569. Selecting the least dispersive population. *Applied statistics research progress*, 111-126, Nova Sci. Publ., New York, 2008, Kumar, Narinder, N. Misra.
570. Restricted regression estimation in measurement error models. *Comput. Statist. Data Anal.* 52(2008), No.2, 1149-1166, Shalabh, G. Garg, N. Misra.
571. k nearest neighbor estimators of entropy. *Math. Methods Statist.* 17(2008), No. 3, 262-277, R.M. Mnatsakanov, N. Misra, Li, Sh., Harner, E.J.
572. Genetic algorithms based robust frequency estimation of sinusoidal signals with stationary errors, *Engineering Applications of Artificial Intelligence*, Vol.23 (3), 321-330, (2010), Mitra, D. Kundu.

573. A Note on Bilinear Littlewood-Paley Square function, Proc. Amer. Math. Soc. 138, (2010), 2095-2098, P. Mohanty, S. Srivastava.
574. Homogenization of Low-Cost Control Problems on Perforated Domains. Journal of Mathematical Analysis and Application Vol.351, No.1, (2009), 29-42, T. Muthukumar, A.K. Nandakumaran.
575. A short note on semi linear elliptic equations in unbounded domains, Nonlinear Dynamics and System Theory. 10(1),(2010),93-95, V. Raghavendra, K. Rasmita.
576. A short note on semi linear elliptic equations in unbounded domains, Nonlinear Dynamics and System Theory. 10(1),(2010),93-95, V, Raghavendra, K. Rasmita.
577. A numerical study of pulsatile power law fluid flow in a porous channel, JMMB, Vol.9(3),437-447,(2009), B.V. Rathish Kumar, Shalini, M. Nigam, V.Sangwan, S.K. Murthy.
578. Soret and Dufour effect on double diffusive natural convection in a wavy porous enclosure, porous media heat and mass transfer, NOVA, 221-241,(2009), B.V. Rathish Kumar, S. Belouettar, S.K. Murthy, V. Sanagwan, M. Nigam, Shalini, D.A.S. Rees, P. Chandra.
579. Error estimates for linear PDEs solved by wavelet based tG schemes, IJWMIP, Vol.7(1),1-20,(2009), M. Mehra, B.V. Rathish Kumar.
580. Correlation of CSF neuroinflammatory molecules with leptomeningeal cortical subcortical white matter fractional anisotropy in neonatal meningitis. Magn Reson Imaging. 2009; 27(2):214-21, A. Yadav, G.K.Malik, R. Trivedi, A. Prasad, K. Nath, K.N. Prasad, P. Agarwal, R.K.S. Rathore, R.P. Tripathi, R.K. Gupta.
581. Understanding Development and Lateralization of Major Cerebral Fiber Bundles in pediatric population Through Quantitative Diffusion Tensor Tractography (DTT). Pediatr Res. 2009 Aug 14, R. Trivedi, S. Agarwal, R.K.S.Rathore, S. Saksena, R.P. Tripathi, G.K. Malik, C.M. Pandey, R.K. Gupta.
582. Correlation of Diffusion Tensor Imaging with Histology in the Developing Human Frontal Cerebrum. Dev Neurosci. 2009 Jul 20. [Epub ahead of print], R. Trivedi, N. Husain, R.K.S. Rathore, S. Saksena, S. Srivastava, G.K. Malik, V. Das, M. Pradhan, C.M. Pandey, R.K. Gupta.
583. Comparative evaluation of corpus callosum DTI metrics in acute mild and moderate traumatic brain injury: its correlation with neuropsychometric tests. Brain Inj. 2009; 23(7):675-85, R. Kumar, R.K. Gupta, M. Husain, C. Chaudhry, Srivastava, S. Saksena, R.K.S. Rathore.
584. Region-specific maturation of cerebral cortex in human fetal brain: diffusion tensor imaging and histology. Neuroradiology. 2009; 51(9):567-76, R. Trivedi, R.K. Gupta, N. Husain, R.K.S. Rathore, S. Saksena, S. Srivastava, G.K. Malik, V. Das, M. Pradhan, M.K. Sarma, C.M. Pandey, P.A. Narayana.

585. Diffusion tensor anisotropy magnetic resonance imaging: a new tool to assess synovial inflammation. *Rheumatology (Oxford)*. 2009; 48(4):378-82, V. Agarwal, M. Kumar, J.K. Singh, R.K.S.Rathore, R. Misra, R.K. Gupta.
586. Improved bolus arrival time and arterial input function estimation for tracer kinetic analysis in DCE-MRI. *J Magn Reson Imaging*. 2009; 29(1):166-76, A. Singh, R.K.S. Rathore, M. Haris, S.K. Verma, N. Husain, R.K. Gupta.
587. Abdominal fat distribution and insulin resistance in Indian women with polycystic ovarian syndrome. *Fertil Steril*. 2009; 91(4 Suppl):1437-40, P. Kalra, B. Bansal, P. Nag, J.K. Singh, R.K. Gupta, S. Kumar, R.K.S. Rathore, V. Bhatia, E. Bhatia.
588. Role of diffusion tensor imaging metrics and in vivo proton magnetic resonance spectroscopy in the differential diagnosis of cystic intracranial mass lesions. *Magn Reson Imaging*. 2009; 27(2):198-206, K. Nath, M. Agarwal, M. Ramola, M. Husain, K.N. Prasad, R.K.S. Rathore, C.M. Pandey, R.K. Gupta.
589. Twisted spherical means in annular regions in  $S^{n-1}$  and support theorem, *Annales de l'institut Fourier*, 59 No.6 (2009), 2509-2523, R. Rawat, R.K. Srivastava.
590.  $L^p$  Wiener-Tauberian theorems for  $M(2)$ . Published online first on 15 April 2009 in *Math Z*, R. Rawat, E.K. Narayanan.
591. The role of restriction theorems in harmonic analysis on harmonic NA groups, *Journal of Functional Analysis*, 7(258), 2010, 2453-2482, P. Kumar, S.K. Ray, Sarkar Rudra P.
592. Optimal estimation in a linear regression model using incomplete prior information in *Statistical Inference, Econometric Analysis and Matrix Algebra (Springer)* (Editors: Bernhard Schipp and Walter Kraemer), (2009), 185-200, H. Toutenburg, Shalabh, C. Heumann.
593. Use of prior information in the consistent estimation of regression coefficients in a measurement error model. *Journal of Multivariate Analysis*, Vol.100, 1498-1520, (2009), Shalabh, G. Garg, N. Misra.
594. Stein-Rule estimation under an extended balanced loss function, *Journal of Statistical Computation & Simulation*, Vol. 79, No.10 (2009), 1259-1273, Shalabh, H. Toutenburg, C. Heumann.
595. An efficient heuristic algorithm for the bottleneck traveling salesman problem, *OPSEARCH*, 49, September 2009, Ravi Ramakrishnan, P. Sharma, A. Punnen.
596. An Interpolating 6-Point  $C^2$  Non-Stationary Subdivision Scheme. *Journal of Computational and Applied Mathematics*, 230(2009), 164-172, S. Daniel, P. Shunmugaraj.
597. An Approximation  $C^2$  Non-Stationary Subdivision Scheme. *Computer Aided Geometric Design* 26(2009), 810-821, S. Daniel, P. Shunmugaraj.
598. Modelling the depletion of forestry resources by population and population pressure augmented industrialization. To be published in *Applied Mathematical Modelling*, (2009), P. Sinha, B. Dubey, J.B. Shukla, S. Sharma.

599. A mathematical model for chemical defense mechanism of two competing species. *Journal of Nonlinear Analysis: Series B Real World Applications*, Vol.11, 1143-1158, (2010), P. Sinha, B. Dubey, J.B. Shukla, S. Sharma, A. Agarwal.

### Physics

600. Tunneling evidence of two types of electronic states in  $\text{La}_{0.625}\text{Ca}_{0.375}\text{MnO}_3$  manganite thin films, *J. Phys.: Cond. Mat.* 21, 355001 (2009), Udai Raj Singh, Saumyadip Chaudhary, R. C. Budhani, and A. K. Gupta.
601. Quenching through Dirac and semi-Dirac points in optical lattices: Kibble-Zurek scaling for anisotropic quantum critical systems, *Europhys. Lett.* 89, 67001 (2010), Amit Dutta, R. R. P. Singh and Uma Divakaran.
602. Landau-Zener problem with waiting at the minimum gap and related quench dynamics of a many-body system, *Phys. Rev. B* 81, 054306 (2010), Uma Divakaran, Amit Dutta, and Diptiman Sen.
603. Adiabatic dynamics in passage across quantum critical lines and gapless phases, *Phys. Rev. E* 81, 012101 (2010), Debanjan Chowdhury, Uma Divakaran, and Amit Dutta.
604. Reverse quenching in a one-dimensional Kitaev model, *Phys. Rev. B* 79, 224408 (2009), Uma Divakaran, and Amit Dutta.
605. Effects of interference in the dynamics of spin-1/2 transverse XY Chain driven periodically through quantum critical points, *J. Stat. Mech: Theo. and Expt.* P05005, (2009), Victor Mukherjee and Amit Dutta.
606. Anomalous magnetic behavior of CuO nanoparticles, *Solid State Communications* 150, 884-887 (2010), V. Bisht, K.P. Rajeev, and S. Banerjee.
607. Memory and aging effects in NiO nanoparticles, *Journal of Physics : Condensed Matter* 22, 016003 (2010), V. Bisht and K.P. Rajeev.
608. Evidence of kinetically arrested supercooled phases in the perovskite oxide  $\text{NdNiO}_3$ , *Journal of Physics : Condensed Matter* 21, 485402 (2009), D. Kumar, K.P. Rajeev, J.A. Alonso, and M.J. Martinez-Lope.
609. Slow dynamics in hard condensed matter: a case study of the phase separating system  $\text{NdNiO}_3$ , *Journal of Physics : Condensed Matter* 21, 185402 (2009), D. Kumar, K.P. Rajeev, J.A. Alonso, and M.J. Martinez-Lope.
610. Possible charge-density wave transition in  $\text{PrPt}_2\text{Si}_2$ , *Phys. Rev. B* 81, 125107 (2010). M. Kumar, V.K. Anand, C. Geibel, M. Nicklas, and Z. Hossain.
611. Suppression of quadrupolar order on Si-doping in  $\text{YbRu}_2(\text{Ge}_{1-x}\text{Si}_x)_2$ , *J. Phys.: Condens. Matter* 22, 126004 (2010), A. Prasad, H.S. Jeevan, C. Geibel and Z. Hossain.
612. Magnetic and transport properties of  $\text{Pr}_2\text{Pd}_3\text{Si}_5$ , *Journal of Magnetism and Magnetic Materials* 321, 2753-2756 (2009), Anupam, V. K. Anand, V. Ganesan and Z. Hossain.

613. Valance fluctuation in  $Ce_2Co_3Ge_5$  and crystal field effect in  $Pr_2Co_3Ge_5$ , S. Layek, J. Magn. Mater. 321, 3447-3452 (2009), V.K. Anand, and Z. Hossain.
614. B-11 and Pt-195 NMR study of heavy-fermion compound  $CePt_2B_2C$ , Journal of Physics Condensed Matter 21, 415602 (2009), R. Sarkar, A. Ghoshray, A. Pahari, M. Ghosh, K. Ghoshray, B. Bandyopadhyaya, M. Majumder and Z. Hossain.
615. Evidence for a reentrant superconducting state in  $EuFe_2As_2$  under pressure, Phys. Rev. B 79, 212509 (2009), Miclea CF, Nicklas M, Jeevan HS, D. Kasinathan, Z. Hossain, H. Rosner, P. Gegenwart, C. Geibel, F. Steglich.
616.  $YbNiB_4$ : a Kondo lattice with low dimensional antiferromagnetic fluctuations, Journal of Physics: Condensed Matter 21, 200603 (2009), A. Prasad, H.S. Jeevan, C. Geibel and Z. Hossain.
617. Superconductivity and magnetism in K-doped  $EuFe_2As_2$ , Journal of Physics Condensed Matter 21, 265701 (2009), Anupam, P L Paulose, H. S. Jeevan, C Geibel, and Z Hossain.
618. Trafficlike collective movement of ants on trails: absence of jammed phase Phys. Rev. Lett., 102, 108001 (2009), A. John, A. Schadschneider, D. Chowdhury and K. Nishinari.
619. Resource Letter PBM-1: Physics of biomolecular machines, American Journal of Physics 77, 583 (2009), D. Chowdhury.
620. Stochastic kinetics of ribosomes: Single motor properties and collective behavior, Phys. Rev.E 80, 011908 (2009). (Selected for the Jul 15, 2009, issue of the Virtual Journal of Biological Physics Research), A. Garai, D. Chowdhury, D. Chowdhury and T.V. Ramakrishnan.
621. RNA polymerase motors: dwell time distribution, velocity and dynamical phases, Journal of Statistical Mechanics: Theory and Experiment P08018 (2009), T. Tripathi, G. M. Schutz and D. Chowdhury.
622. The measurement of atto-gram mass accumulation on nanostructures during e-beam scanning, using carbon nano-pillars in resonant mode, Nanotechnology 20, 345501 (2009), A Banerjee, T Mankad, S Dhamodaran, J Ramkumar and V N Kulkarni.
623. Suppression of Jahn-Teller distortion by chromium and magnesium doping in spinel  $LiMn_2O_4$ : A first-principles study using GGA and GGA+U, J. Phys. Chem. Solids, 70,1200 (2009), Gurpreet Singh, S. L. Gupta, R. Prasad, S. Auluck, Rajeev Gupta, Anjan Sil.
624. Time moments of the energy flow of optical pulses in highly dispersive media, Journal of Physics B - Atomic Molecular and Optical Physics 43, 5 (2010), L. Nanda, H.Wanare and S.A. Ramakrishna.
625. Switching a plasma-like metamaterial via embedded resonant atoms exhibiting electromagnetically induced transparency, Optics Letters 34, 3728-3730 (2009), S. Chakrabarti, S.A. Ramakrishna and H. Wanare.

626. Negative refractive index, perfect lenses and checkerboards: Trapping and imaging effects in folded optical spaces, *Comptes Rendus Physique* 10, 352378 (2009), S. Guenneau, and S.A. Ramakrishna.
627. Spectral shifts in the properties of a periodic multilayered stack due to isotropic chiral layers, *Journal of Optics A: Pure and Applied Optics* 11, 074001 (2009), S.A Ramakrishna, and A. Lakhtakia.
628. Why do superluminal pulses become subluminal once they go far enough?, *Phys. Rev. A* 79, 041806 Part: Part A Published: APR (2009), L.Nanda, H. Wanare and S.A. Ramakrishna.
629. Giant slow velocity fluctuations in a driven vortex lattice; *Phys. Rev. Lett.* 103, 167001 (2009), Shyam Mohan, Jaivardhan Sinha, and S. S. Banerjee, A.K. Sood, S. Ramakrishnan and A. K. Grover.
630. Giant slow velocity fluctuations in a driven vortex lattice, October 15, 2009 issue of *Virtual Journal of Applications of Superconductivity*, Shyam Mohan, Jaivardhan Sinha, and S. S. Banerjee, A.K. Sood, S. Ramakrishnan and A. K. Grover.
631. Random walk of electrons in a gas in the presence of polarized electromagnetic waves: genesis of a wave induced discharge *Physics of Plasmas*, 16, 104502 (2009), Sudeep Bhattacharjee and Samit Paul.
632. Experimental investigation of transition from Fowler Nordheim field emission to space-charge-limited flows in a nanogap, *Applied Physics Letters* 95, 061501 (2009), Sudeep Bhattacharjee and Tathagata Chowdhury.
633. Ion energy distribution near a plasma meniscus for multielement focused ion beams, *Journal of Applied Physics (Communications)*, 105, 096101 (2009), Jose V. Mathew and Sudeep Bhattacharjee.
634. Micron-focused ion beamlets, *Journal of Applied Physics* 107, 093307 (2010), Abhishek Chowdhury and Sudeep Bhattacharjee.
635. Ion energy distribution near a plasma meniscus with beam extraction for multielement focused ion beams, *Journal of Applied Physics* 107, 093306 (2010), Jose V. Mathew, Samit Paul, and Sudeep Bhattacharjee.
636. Patterns and bifurcations in low-Prandtl number Rayleigh- Bénard convection, *Europhys. Lett.* 89, 44003 (2010), P. K. Mishra, P. Wahi, and M. K. Verma.
637. Chaotic travelling rolls in two-dimensional Rayleigh-Bénard convection, *Pramana*, 74, 75 (2010), S. Paul, K. Kumar, M. K. Verma, D. Carati, A. De, and V. Eswaran.
638. Bifurcations and Chaos in zero-Prandtl number convection, *Europhys. Lett.* 87, 54003 (2009), P. Pal, P. Wahi, S. Paul, M. K. Verma, and P. K. Mishra.
639. Energy transfers in shell models for magnetohydrodynamics turbulence, *Phys. Rev. E* 79, 066307 (2009), T. Lessinnes, D. Carati, and M. K. Verma.
640. Energy transfer in anisotropic magnetohydrodynamic turbulence B. Teaca, *Phys. Rev. E* 79, 046312 (2009) M. K. Verma, B. Knaepen, and D. Carati.



641. Thermodynamic geometry and phase transitions in Kerr-Newman-AdS black holes, *Journal of High Energy Physics*, Vol: 2010, Number 4/April, (2010), pages: 1-41, Sahay, T. Sarkar and G. Sengupta.
642. A local-density approximation for the exchange energy functional for excited states in bulk semiconductors: the band gap problem, *Physica B* 404, 1137 (2009), M. Rahman, S. Ganguli, P. Samal, M.K. Harbola, T. Saha-Dasgupta and A. Mookerjee.
643. Is it possible to construct excited-state energy functionals by splitting k-space?, *Journal of Molecular Structure: Theochem* 943, 152 (2010), M.Hemanadhan and M.K. Harbola.
644. Fixed points and boundary layers in asymmetric simple exclusion processes, *Phys. Rev. E* 79, 041140-1: 041140-4 (2009), Sutapa Mukherji.
645. Neutrino absorption by W production in the presence of a magnetic field, *Eur. Phys. J. C* 62, 481 (2009), K. Bhattacharya and S. Sahu.
646. Orbital degeneracy, Hund's coupling, and band ferromagnetism: Effective quantum parameter, suppression of quantum corrections, and enhanced stability, *Phys. Rev. B* 79, 064410 (2009), Bhaskar Kamble and Avinash Singh.
647. Orbital fluctuations, spin-orbital coupling, and anomalous magnon softening in an orbitally degenerate ferromagnet, *Phys. Rev. B* 81, 064430 (2010), Dheeraj Kumar Singh, Bhaskar Kamble, and Avinash Singh.
648. Spin-charge and spin-orbital coupling effects on spin dynamics in ferromagnetic manganites, [arxiv.org./abs/1004.1352](http://arxiv.org/abs/1004.1352) (2010), Dheeraj Kumar Singh, Bhaskar Kamble, and Avinash Singh.
649. On the chromoelectric permittivity and Debye screening in hot QCD, *Eur. Phys. J. A* 40, 109-117 (2009), Vinod Chandra, Akhilesh Ranjan and V. Ravishankar.
650. Dynamics of entanglement in Two-Qubit Open System Interacting with a Squeezed Thermal Bath via Dissipative interaction, *Annals of Physics* 325 (4), 816-834 (2010), Subhashish Banerjee, V. Ravishankar, R. Srikanth.
651. Quasi-particle model for lattice QCD: quark-gluon plasma in heavy ion collisions, *Eur.Phys.J.C* 64, 63-72, 2009, Vinod Chandra, and V. Ravishankar.
652. Viscosity and thermodynamic properties of QGP in relativistic heavy ion collisions, *Eur. Phys. J. C* 59, 705-714 (2009), Vinod Chandra and V. Ravishankar.
653. Entanglement dynamics in two-qubit open system interacting with a squeezed thermal bath via quantum nondemolition interaction, *Phys. J. D* 56, 277-290 (2010), Subhashish Banerjee, V. Ravishankar, R. Srikanth.
654. Polarization gated imaging in tissue phantoms: effect of size distribution, *Applied Optics*, Vol. 48, 6099 (2009), (Also in *Virtual Journal of Biomedical Optics*), Prashant Shukla and Asima Pradhan.

## CONFERENCE PAPERS

### Aerospace

1. Development of a Computational Aeroelastic Model for a Helicopter in Level Flight and Maneuvering Conditions, ICEAE 2009, Indian Institute of Science, Bangalore, May 2009, Rohin Kumar, M., Laxman, V., and Venkatesan, C.
2. Experimental Studies in the Development of an Autonomous Mini Helicopter, ICEAE 2009, Indian Institute of Science, Bangalore, May 2009, Swaroop, B., Dhadwal, M., Kuashari, A., Upadhyay, C.S., and Venkatesan, C.
3. Experimental Studies on Pitch-Roll-Yaw Control of a Mini Helicopter on a Test Rig, AHS Specialists' Meeting, International Forum on Rotorcraft Multidisciplinary Technology, Seoul, Korea, October 2009, Swaroop, B., Dhadwal, M., and Venkatesan, C.
4. A Study of Piezo Lay-up Configuration and Ply Orientation of Smart Composite Plates, XVI-National Seminar on Aerospace Structures, Indian Institute of Technology-Bombay, Mumbai, November 2009, Sateesh, V.L., Upadhyay, C.S., and Venkatesan, C.
5. Computational Aeroelastic Formulation for Predicting Helicopter Trim and Loads, Invited Paper, Symposium on Applied Aerodynamics and Design of Aerospace Vehicles (SAROD-2009), National Aerospace Laboratories, Bangalore, December 2009, Venkatesan, C., and Laxman, V.
6. Relevance of Aircraft Maintenance Course in the Curriculum of Aeronautical Engineering, presented at 21<sup>st</sup> National Convention of Aerospace Engineers-2007 at IIT Kanpur during 16-17, 2007, Rakesh Kumar and A.K. Ghosh.
7. Unsteady Aerodynamic Modeling for Parameter Estimation, presented at ICAPES-2009, at Venice, Italy during Oct-28-30, 2009, Rakesh Kumar and AK Ghosh.
8. Analysis of Parameter Estimation from Flight Data for Various 3-2-1-1 Control Inputs, published in 4<sup>th</sup> Symposium on Applied Aerodynamics & Design of Aerospace Vehicles (SAROD-09) held at Bangalore during Dec, 2009, Kumar and AK Ghosh.
9. Effect of Unsteady Aerodynamics on Parameter Estimation, published in 4<sup>th</sup> Symposium on Applied Aerodynamics & Design of Aerospace Vehicles (SAROD-09) held at Bangalore during Dec, 2009, Kumar and AK Ghosh.
10. Effect of Unsteady Aerodynamic on System Identification accepted in IEEE Aerospace Conference held at Big Sky, Montana during March 6-13, 2010, Rakesh Kumar, AK Ghosh.
11. Parametric study during stability analysis of Aerostat, accepted for publication and presentation in AIAA Flight Mechanics International

- Conference to be held at Toronto during August 2-5, 2010, Rakesh Kumar, Shashank Srivastva, Ajit Kumar, Balraj Gupta and AK Ghosh.
12. Technique to improve Precision of Kinetic Energy projectiles through motion study, AIAA, FMC, Michigan USA, Aug 2009, AK Ghosh.
  13. Aerodynamic Characterization of scale model aircraft using 5 DoF dynamic testing, Los Angeles, USA, Feb. 2010, AK Ghosh.
  14. Flow Dynamics in Low Aspect Ratio Dump Combustor, ISABE 2009 -1237, XIX International Symposium of Air Breathing Engines (ISABE), September 7-11, 2009, Montréal, Canada, N. P. Yadav and A. Kushari.
  15. Dynamics of Swirling Flow in a Dump Combustor at Elevated Pressures, FEDSM-2009-78278, ASME 2009 Fluids Engineering Division Summer Meeting, 3<sup>rd</sup> International Symposium on Flow Applications in Aerospace, August 2-5, 2009, Vail, Colorado, USA, N. P. Yadav and A. Kushari.
  16. Characterization of Spray of Internal Mixing Atomizer Proceedings of IISc International Conference and Exhibition on Aerospace Engineering, Banaglore, pp.333-338, 2009, D. P. Mishra and G Singh.
  17. Numerical Investigation of Direct Fuel Injection from the Cavity Walls in 2D Supersonic Combustor, Proceedings of IISc International Conference and Exhibition on Aerospace Engineering, Bangalore, pp.393-401 2009, D. P. Mishra and G Singh.
  18. Study of Water Mist System for Fire Suppression, 7<sup>th</sup> Asia-Pacific Conference on Combustion, National Taiwan University, Taiwan, 24-27 May 2009, D. P. Mishra and R. Singh.
  19. Characteristics of Premixed Flame in an Annular Micro-combustor, 7<sup>th</sup> Asia-Pacific Conference on Combustion, National Taiwan University, Taiwan, 24-27 May 2009, S. Y. Jejurkar and D. P. Mishra.
  20. Numerical Studies of a 2D Trapped Vortex Combustor 7<sup>th</sup> Asia-Pacific Conference on Combustion, National Taiwan University, Taiwan, 24-27 May 2009, R. Sudharshan, P. K. Ezhil Kumar and D. P. Mishra.
  21. Characterization of Turbulent LPG Inverse Diffusion Flame in Recessed Back step and Coaxial Burners 7<sup>th</sup> Asia-Pacific Conference on Combustion, National Taiwan University, Taiwan, 24-27 May 2009, Mahesh S. and D. P. Mishra.
  22. Experimental Study of CNG-Air Premixed Flames using Chemiluminescence Sensor 7<sup>th</sup> Asia-Pacific Conference on Combustion, National Taiwan University, Taiwan, 24-27 May 2009, B.V.S. Jyoti, M. Muralidhar and D. P. Mishra.
  23. Effects of Initial Droplet Diameter and Pressure on Burning of Organic Gellant-Based Fuel Droplets, Proceedings of 21<sup>st</sup> National Conference on IC Engine and Combustion, p. 477-486, 2009, D. P. Mishra and A Patyal.
  24. Characterization of twin fluid atomizer spray using an optical patterning technique, Proceedings of 21<sup>st</sup> National Conference on IC Engine and Combustion, p. 477-486, 2009, M Muralidhar, P K Ezhil and D. P. Mishra.

25. Numerical modeling of an axisymmetric trapped vortex combustor, Proceedings of 21<sup>st</sup> National Conference on IC Engine and Combustion, p. 477-486, 2009, P K Ezhil and D. P. Mishra.
26. Numerical Study of the Effect of Fuel Injection Angle in a Directly Fuelled 2D Supersonic Cavity Combustor, Proceedings of 21<sup>st</sup> National Conference on IC Engine and Combustion, p. 477-486, 2009, D. P. Mishra, and K V Sridhar.
27. Fibre breaking damage model for unidirectional fibrous composite using micromechanics, 16<sup>th</sup> NASAS at IIT Bombay, 19-20 November 2009, Jain A, Upadhyay CS and Mohite PM.

#### Chemical

28. Development and characterization of functionalized carbon nanofibers, an adsorptive material for the in situ removal of persistent organic pollutants (POPs), Indo-US workshop on Nanotechnology: Applications and Implications, IICT Hyderabad, OP-41, 2009, B Mekala, G.N. Mathur, A. Sharma and N. Verma.
29. Adsorption of persistent organic pollutants by surface functionalized carbon nanofibers, International Conference on Advanced Nanomaterials and Nanotechnology, IIT Guwahati, A-364, 2009, 104, B. Mekala, G.N. Mathur, A. Sharma and N. Verma.
30. Preparation of carbon micro-/nano fibers for the adsorption of dissolved organic and inorganic solutes in water, International Conference on Separation Processes (ICSP 2009), IT BHU, 20<sup>th</sup>-22<sup>nd</sup> October, 2009. Paper no. 232, page no 12-15, A. Chakraborty, B. Mekala, A. Sharma and N. Verma.
31. Preparation of carbon micro fibers and carbon nano fibers for the removal of phenol and lead from water, International Conference on Nanotechnology and Biosensors, (ICNB-2010), Raghu Engineering College, Vishakhapatnam, January 14-18, 2010, Paper No: 27, page no: 38, A. Chakraborty, A. Sharma and N. Verma.
32. CO<sub>2</sub> Methanation over Supported Bimetallic Ni-Fe Catalysts, CHEMFERENCE '09, IIT Madras, ChEmf09-201, 2009, 9-10, D. Pandey and G. Deo.
33. Comparative Study of Homogeneous-Heterogeneous Base Catalysts for Transesterification of Vegetable Oil, CHEMFERENCE '09, IIT Madras, ChEmf09-202, 2009, 11-12, A.K. Gupta and G. Deo.

#### Civil

34. Hydrological modeling: An approach with neural system models and their sensitivity to initial solution, Proc. of the International Conference on Hydrology and Watershed Management (ICHWAM-2010), 3-6 February 2010, JNTU Hyderabad, India, 2010, Narain, S. and Jain, A.

35. Advancements in hydrologic modeling using artificial neural networks, Proc. of Workshop on Development and Application of Advanced Soft Computing Techniques in Multidimensional Geospatial Data Analysis (WAST2009), 15-16 October 2009, IIT Kanpur, Kanpur, India, 2009, Jain, A.
36. Interference effect of two nearby strip surface footings on cohesionless layered soil. International Journal of Geotechnical Engineering (J. Ross Publication) (In press), 2009, Ghosh, P. and Kumar. S. R.
37. Seismic active earth pressure on walls with bilinear backface using pseudo-dynamic approach. Computers and Geotechnics (Elsevier Publication), Vol. 36, No. 7, 2009, pp 1229-1236, 2009, Sreevalsa. K. and Ghosh, P.
38. Interference effect of two nearby strip footings on reinforced sand. Contemporary Engineering Sciences Journal (HIKARI Ltd. Bulgaria) Vol. 2, No. 12, pp 577-592, 2009, Ghosh, P. and Kumar. P.
39. Seismic vertical uplift capacity of horizontal strip anchors using pseudo-dynamic approach. Computers and Geotechnics (Elsevier Publication), Vol. 36, No. 1-2, pp 342-351. Ghosh, P.
40. Single Scattering Albedo Variation in the Indian Continental Tropical Convergence Zone during Pre-Monsoon and Monsoon Seasons of Year 2008. J. Jaidevi, S.N. Tripathi, Gupta, Tarun and V. Gopalkrishnan, European Aerosol Conference, Karlsruhe, Germany, (6<sup>th</sup> -11<sup>th</sup> Sep, 2009).
41. Particulate Characterization of Biodiesel Fuelled Compression Ignition Engine. Dhananjay Kumar Srivastava, Avinash Kumar Agarwal and Gupta Tarun, (Paper No.2009-28-0018), SAE India International Mobility Engineering Congress and Exposition-2009, Chennai, (13<sup>th</sup> -15<sup>th</sup> Dec, 2009).
42. Identification of Air Pollution Sources at Kanpur during Winter Season. Anil Mandaria, Jaiprakash and Gupta, Tarun, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
43. Measurement and Chemical Characterisation of Background Aerosol in the Delhi Region. Amrita Singhai, Anil Mandaria, Gazala Habib and Gupta, Tarun, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
44. Measurement of Respiratory Health and Personal Exposure to Particulate Matter and Gaseous Co-pollutants for a Cohort of IIT-Kanpur Students. J. Jaidevi, Rajmal Jat, Gupta, Tarun and S. N. Tripathi, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
45. Development and Evaluation of a Photochemical Chamber, for Studying the Relative Toxicity of Primary and Secondary Diesel Exhaust Particles. Krishna Kumar Budania, Gupta, Tarun, Avinash Kumar Agarwal, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
46. Comparison of Indoor Air Pollution Measured in Different Microenvironments at IIT Kanpur. Rajmal Jat, Julie Parfait, Adrien Peuch and Tarun Gupta, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).

47. Design, Development and Field Evaluation of a PM<sub>2.5</sub> Sampler. Gupta, Tarun and Jaiprakash, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
48. Vertical and Spatial Variation of CCN and Submicron Aerosol Size Distribution over Indian Continental Tropical Convergence Zone during Monsoon Season of year 2008. V. Patidar, J. Jaidevi, S.N. Tripathi, Gupta, Tarun, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
49. Aerosol Radiative Impacts over Indian CTCZ Region: Results from Pilot 2008 Aircraft Experiment. J. Jai Devi, S.N. Tripathi, Gupta, Tarun, B.N Singh, V.Gopalakrishnan, IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010).
50. Enhancement of Sustainability of Nonstructural Systems in Critical Facilities, In the proceeding of the 10th International Conference on Structural Safety and Reliability (ICOSSAR 2009), pp. 2322-2329, Tokyo, Japan, 2009, Ray Chaudhuri, S., and Shinozuka, M.
51. Seismic Performance Evaluation of Container Cranes, In the proceeding of the ATC-SEI Conference on Improving the Seismic Performance of Existing Buildings and Other Structures, pp. 379-388, San Francisco, CA, 2009, Ray Chaudhuri, S., Na, U. J., and Shinozuka, M.
52. Probabilistic Evaluation of Seismic Performance for Vincet Thomas Bridge, In the proceeding of the 10th International Conference on Structural Safety and Reliability (ICOSSAR 2009), pp. 2337-2342, Tokyo, Japan, 2008, Karmakar, D., Ray Chaudhuri, S., Lee, H. and Shinozuka, M.
53. Probabilistic Evaluation of Retrofit Effect on Seismic Performance of Vincent Thomas Bridge under Spatially Variable Ground Motion, In the proceeding of the ATC-SEI Conference on Improving the Seismic Performance of Existing Buildings and Other Structures, 367-378, San Francisco, CA, 2009, Karmakar, D., Ray Chaudhuri, S., and Shinozuka, M.
54. Stochastic Interpolation of the Underground Contamination by Monte Carlo Filter, In the proceeding of the 10th International Conference on Structural Safety and Reliability (ICOSSAR 2009), pp. 2373-2375, Tokyo, Japan, 2009, Maruyama, O., Shinozuka M. and Ray Chaudhuri, S.
55. Performance Evaluation of Pile-Supported Wharf under Seismic Loading, In the proceeding of the Lifeline Earthquake Engineering in a Multihazard Environment (TCLEE 2009), 10 pages, Oakland, California, 2009, Na, U. J., Ray Chaudhuri, S., and Shinozuka, M.
56. Vertical and Spatial Variation of CCN and Submicron Aerosol Size Distribution over Indian Continental Tropical Convergence Zone during Monsoon Season of year 2008, Indian Aerosol Science and Technology Association Darjeeling, E-O-7, 2010, 405-406, V. Patidar, J. Jaidevi, S.N. Tripathi and Tarun Gupta.
57. Measurement of Respiratory Health and Personal Exposure to Particulate Matter and Gaseous Co-pollutants for a Cohort of IIT-Kanpur Students, Indian

- Aerosol Science and Technology Association Darjeeling, D-P-3, 2010, 363-364, J. Jaidevi, Rajmal Jat, Tarun Gupta and S. N. Tripathi.
58. Aerosol Radiative Impacts over Indian CTCZ Region: Results from Pilot 2008 Aircraft Experiment, Indian Aerosol Science and Technology Association Darjeeling, I-O-2, 2010, 604-605, J. Jaidevi, S.N. Tripathi, Tarun Gupta, B.N Singh and V. Gopalakrishnan.

#### Computer Science & Engineering

59. A Note on Estimating Hybrid Frequency Moment of Data Streams Proceedings of the fifth International Conference on Algorithmic Aspects in Information and Management (AAIM 2009), Lecture Notes in Computer Science 5564 Springer 2009, pages 202-211, Sumit Ganguly.
60. Deterministically Estimating Data Stream Frequencies Third International Conference on Combinatorial Optimization and Applications, (COCO A 2009). Proceedings as Lecture Notes in Computer Science 5573 Springer 2009, pages 301-312, Sumit Ganguly.
61. d-Dimensional Knapsack in the Streaming Model 17th Annual European Symposium on Algorithms (ESA 2009), Proceedings as Lecture Notes in Computer Science 5757 Springer, pages 468-479, Sumit Ganguly, Christian Sohler.
62. Learning concepts and language for a baby designer Fourth International Conference on Design Computing and Cognition (DCC'10), Stuttgart, July 2010, Madan Mohan Dabbeeru and Amitabha Mukerjee.
63. Using symbol emergence to discover multi-lingual translations in design, 22nd International Conference on Design Theory and Methodology (DTM), Montreal Canada, Aug 2010, Madan Mohan Dabbeeru and Amitabha Mukerjee.
64. Generalized Reduction to Compute Toric Ideals (with Deepanjan Kesh). ISAAC- 2009, Honolulu, USA, 16-18 December 2009. Shashank K Mehta.
65. Engineering Location Based Pathfinding on Indian Road Networks Over Low End Mobile Phones, COMSNETS 2010, Bangalore Jan 4-8, 2010, 473-481, Siddharth Jain, R. K. Ghosh and R. K. Shyamsundar.
66. MTorrent: A Multicast Enabled BitTorrent Protocol, COMSNETS 2010, Bangalore Jan 4-8, 2010, 183- 192, R. K. Ghosh, Hitesh Khandelwal, Piyush Agrawal.
67. One-way Functions and the Berman-Hartmanis Conjecture, Conference on Computational Complexity, 194-202, Year: 2009, Authors: Manindra Agrawal and Osamu Watanabe
68. On Low Distortion Embeddings of Statistical Distance Measures into Low Dimensional Spaces.. International Conference on Database and Expert

- Systems Applications (DEXA), 2009, pages 164-172, Linz, Austria. Arnab Bhattacharya, Purushottam Kar, Manjish Pal.
69. Querying Spatial Patterns. International Conference on Extending Database Technology (EDBT), 2010, pages 418-429, Lausanne, Switzerland. Vishwakarma Singh, Arnab Bhattacharya, Ambuj K. Singh.
  70. Games on Higher Order Multi-stack Pushdown Systems, In proc. third international workshop on Reachability Problems 2009 (RP09), Palaiseau, France, September 23-25, 2009. Lecture Notes in Computer Science (LNCS), vol. 5797, pages. 203-216. Author: Anil Seth.
  71. Learning Disambiguation of Hindi Morpheme 'vaalaa' with a Sparse Corpus, The Eighth International Conference on Machine Learning and Applications (ICMLA 2009), Dec13-15, 2009, Miami, Florida, USA. R. Mahesh K. Sinha.
  72. Indian National Translation Mission: Need for Integrating Human- Machine Translation, (<http://www.mt-archive.info/MTS-2009-Sinha-1.pdf>), Proceedings MT Summit XII, Aug.26-30, 2009, Ottawa, Canada. R. Mahesh K. Sinha.
  73. Developing English-Urdu Machine Translation via Hindi, Third Workshop on Computational Approaches to Arabic Script-based Languages (CAASL3), MT Summit XII, Aug.26-30, 2009, Ottawa, Canada, pp. 89-95. R. Mahesh K. Sinha.
  74. Automated Mining Of Names Using Parallel Hindi-English Corpus, ACL-IJCNLP 2009 Workshop on the 7th Asian Language Resources, Aug. 3-7 009, Singapore. R. Mahesh K. Sinha.
  75. Mining Complex Predicates In Hindi Using Parallel Hindi-English Corpus, ACL-IJCNLP 2009 Workshop on Multi Word Expression (MWE 2009), Aug. 3-7 009, Singapore. R. Mahesh K. Sinha.
  76. Approximate Shortest Paths Avoiding a Failed Vertex: Optimal Size Data Structures for Unweighted Graphs, 27th International Symposium on Theoretical Aspects of Computer Science, March 4-6, 2010, , pp 513-524, Neelesh Khanna and Surender Baswana.

## Electrical

77. Effects of hardeners, catalysts and accelerators on dielectric properties of different resin systems for microwave material processing applications., Proceedings, 12th International Conference on Microwave and High Frequency Heating, Karlsruhe, Germany, September 7-10, 2009, M. J. Akhtar et al.
78. Optimal design and control of a hand exoskeleton for rehabilitation of stroke patients, ICROS-SICE International Joint Conference on Instrumentation, Control and Informational Technology, Japan, 2009, 1644-1649, H. Akholkar, F. Orlando, A. Dutta, A. Saxena and L. Behera.



79. Effect of annealing on P3HT: PCBM based bulk heterojunction organic solar cell, International Workshop on the Physics of Semiconductor Devices, New Delhi, India from 16-20 December in 2009, Anirban Bagui, S. Sundar Kumar Iyer.
80. Effect of CuPc-Ag and CuPc-Al interface in exciton dissociation, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Suman Banerjee, Anukul P. Parhi, Satyendra Kumar and S. Sunder Kumar Iyer.
81. Optimal design and control of a hand exoskeleton, 2010 IEEE International Conferences on Cybernetics & Intelligent Systems (CIS 2010) and Robotics, Automation and Mechatronics (RAM 2010), (Accepted), Singapore, 28-30 June, 2010, Laxmidhar Behera, Felix Orlando, Ashish Dutta and Anupam Saxena.
82. Image based visual serving of a 7 DOF robot manipulator using distributed fuzzy proportional controller, IEEE World Congress on Computational Intelligence, (Accepted) Barcelona, Spain, July 18-23, 2010, Laxmidhar Behera, Indrazno Siradjuddin, T.M. McGinnity and Sonya Coleman.
83. Intelligent visual servoing schemes for redundant manipulators, Towards Autonomous Robotic Systems - TAROS 2009, University of Ulster, UK, Laxmidhar Behera and Premkumar P.
84. VHDL implementation of two-state multiple turbo codes", Proceedings of the 16th National Conference on Communications (NCC 2010), 29th -31st Jan. 2010, I.I.T. Madras, India, Vikas Bhatia, Adrish Banerjee.
85. Update and analysis of economic current density of low-voltage copper cables, First International Conference on Sustainable Power Generation and Supply (SUPERGEN), Nanjing, China, April 6-7, 2009, Minghui Chen, Xiangzhen He, Fushuan Wen and S.N. Singh.
86. Bilayer organic solar cells based on imidazolin-5-one molecules, 34th IEEE Photovoltaic Specialists Conference, 2009, June 12-19, Philadelphia, USA, K.A.K. Chidvilas, Pramod Mani, S. Sundar Kumar Iyer, Basanta K. Rajbongshi, R. Gurunath.
87. Solar cells based on imidazolin-5-one biomolecules, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, K. A. K.Chidvilas, Pramod Mani, S. Sunder Kumar Iyer, Basanta K. Rajbongshi, and R. Gurunath.
88. Effect of area variation on organic solar cell performance, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Ruchi Choudhary, S.S.K. Iyer.
89. Ellipsometric studies on CuPc/C60 heterojunction for solar cell applications, International Workshop on Physics of Semiconductor Devices, India from 16-20 December in 2009, Debjit Datta, Anirban Bagui, S. Sundar K. Iyer and Satyendra Kumar.

90. Study of hole transport interlayer in CUPC/C60 based organic solar cells International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Debjit Datta, Anirban Bagui, Vibha Tripathi, S. Sundar Kumar Iyer and Satyendra Kumar.
91. Flexible P3HT:PCBM bulk heterojunction solar cells, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Ashish Dembla and S. Sundar Kumar Iyer.
92. Development of rhodamine endcapped thiophene based devices for solar cell application, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Ashish Dembla, S. Sundar Kumar Iyer and N. Somanathan.
93. Combining edge and color features for tracking partially occluded humans, ACCV 2009: 9th Asian Conference on Computer Vision, Xi'an China, Sept 23-27, 2009, M D Dixit, K S Venkatesh.
94. Photodegradation of dielectric surrounding tree channels within solids, Indo-German Conference on PDE, Scientific Computing and Optimization in Applications, IIT Kanpur, India October 2009, Alireza A. Ganjovi, Nandini Gupta.
95. Retention modeling of nanocrystalline flash memories: A Monte Carlo approach, 2010 IEEE International Conference on Semiconductor Electronics (ICSE 2010), June 28- 30, Melaka, Malaysia, B. Ghosh and S. K. Banerjee.
96. An information retrieval model based on semantically adapted vector space model, ICON 2009, December 14-17, Hyderabad, INDIA, Pawan Goyal, Laxmidhar Behera and T. M. McGinnity.
97. Entailment of causal queries in narratives using action language. KDIR'09 (Int Conf Knowledge Discovery and Information Retrieval), October 06-08, Portugal, Pawan Goyal, Laxmidhar Behera and T. M. McGinnity.
98. An information retrieval model based on automatically learnt concept hierarchies. In the proceedings of IEEE ICSC (Int Conf Semantic Computing) 2009, Berkeley, CA, USA. Pp 458-465, Pawan Goyal, Laxmidhar Behera and T. M. McGinnity.
99. Sensor integration of a mobile robot for obstacle avoidance, Int Conf and Exhibition on Aerospace Engineering, IISc, Bangalore, May 2009, Meenakshi Gupta and Laxmidhar Behera.
100. PIC-MCC Modeling for Dusty Plasma, 36th IEEE Conference on Plasma Science, USA, June 2009, N. Gupta and S. Gupta.
101. Set theory and composition of processors, IMST 2009 - FIM XVIII: Eighteenth International Conference of Forum for Interdisciplinary Mathematics on Interdisciplinary Mathematical and Statistical Techniques, Aug 2-4, 2009, JUIT, Wagnaghat, India, Richa Gupta, K S Venkatesh.
102. Preservance topology and complex set theory, IMST 2009 - FIM XVIII: Eighteenth International Conference of Forum for Interdisciplinary

- Mathematics on Interdisciplinary Mathematical and Statistical Techniques, Aug 2-4, 2009, JUIT, Wagnaghat, India, Richa Gupta, K S Venkatesh.
103. Characterizing Speaker Variability Using Spectral Envelopes of Vowel Sounds, in Interspeech, Brighton, September 2009, p1107-1110, Harish, D. R. Sanand, and S. Umesh.
  104. Object tracking with mobile robot: A velocity level control, Int Conf and Exhibition on Aerospace Engineering, IISc, Bangalore, May 2009, Naveen Kumar.T, Prem Kumar.P, Laxmidhar Behera/
  105. Photovoltaic properties of bulk heterojunction solar cells based on imidazolin 5-one, Presented in the XV International Workshop on the Physics of Semiconductor Devices, New Delhi, 15th -19th December 2009, Delhi, India, Vineet Kumar, Basanta K. Rajbongshi, R. Gurunath, Jitendra Kumar and S. Sundar Kumar Iyer.
  106. AT-S fuzzy based adaptive critic for continuous-time input affine nonlinear systems, IEEE Conf on SMC, Oct 2009, San Antonio, US, Prem Kumar P., Laxmidhar Behera, NH Siddique and G. Prasad.
  107. Adaptive critic based redundancy resolution scheme for robot manipulators, IEEE Conf on SMC, Oct 2009, San Antonio, Prem Kumar P., Laxmidhar Behera, and G. Prasad.
  108. A novel high breakdown voltage lateral schottky collector bipolar transistor on buried oxide multistep, proceedings of IEEE RSM 2009, Malaysia, Sajad A. Loan, S.Qureshi and S.S.K Iyer.
  109. A high performance lateral bipolar transistor on SELBOX proceedings of IEEE ISDRS 2009, USA, Sajad A. Loan, S.Qureshi and S.S.K Iyer.
  110. A high performance MOSFET on Selective buried oxide with improved short channel effects, proceedings of IEEE ISDRS 2009, USA, Sajad A. Loan, S.Qureshi and S.S.K Iyer.
  111. Enhanced mobile station localization using a Hybrid TOA/AOA map-matching algorithm, IEEE Tencon 2009, Singapore, Sameera Mahajan, Y.N.Singh.
  112. Fill factor and short-circuit current improvement in P3HT:PCBM solar cells incorporating single walled carbon nanotubes, Proceedings of the 15th International Workshop on the Physics of Semiconductor Devices, New Delhi, Dec., 2009, Arun Tej Mallajosyula, S. Sundar Kumar Iyer, and Baquer Mazhari.
  113. Enhanced performance of poly-3(hexylthiophene) - single walled carbon nanotube bulk heterojunction solar cells using a poly-3(hexylthiophene) buffer layer and Ca electrode, 34th IEEE Photovoltaic Specialists Conference, 2009, June12-19, Philadelphia, USA, Arun Tej Mallajosyula, S. Sundar Kumar Iyer, and Baquer Mazhari.
  114. Annealing of copper phthalocyanine thin-film in a dc electric field, International Photovoltaic Science and Engineering Conference-18 (PVSEC-

- 18), Calcutta, 19-23 January, 2009, Anukul Prasad Parhi, Suman Banerjee, S.S.K Iyer and Satyendra Kumar.
115. Effect of pre-processed nanometric alumina fillers on dielectric strength of epoxy composites, 11<sup>th</sup> International Electrical Insulation Conference, Birmingham, UK, May 2009, R. R. Patel, A. Poswal and N. Gupta.
  116. Measurement of polarisation currents in epoxy composites with nanometric alumina fillers, 11<sup>th</sup> International Electrical Insulation Conference, Birmingham, UK, May 2009, R. R. Patel, B. Kishorekumar and N. Gupta.
  117. Effect of filler materials and pre-processing techniques on conduction processes in epoxy-based nanodielectrics, IEEE Electrical Insulation Conference, Montreal, Canada, June 2009, R. R. Patel, B. Kishorekumar and N. Gupta.
  118. Comparative studies of P3HT from two sources for solar cell applications, International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Hitendra S Pawar, Jyoti Srivastava, Sarfaraz Alam and S.S.K. Iyer.
  119. MOPSO based day-ahead optimal self-scheduling of generators under electricity price forecast uncertainty, IEEE General Meeting, July24-28, 2009, Calgary, Canada (Panel Paper), Naran M. Pindoriya and SN Singh.
  120. Hybrid particle swarm optimization based day-ahead self-scheduling for thermal generator in competitive electricity market, ISAP09, Brazil, November 8-12, 2009, N. M. Pindoriya, S. N. Singh and J. Østergaard.
  121. One-step-ahead hourly load forecasting using artificial neural network, ICPS 2009, IIT Kharagpur, December 27-30, 2009, Naran M. Pindoriya and SN Singh.
  122. Optimal generation portfolio allocation in competitive electricity markets, INDICON09, Ahmadabad, India, December 18-20, 2009, Naran M Pindoriya, SN Singh and SK Singh.
  123. Mechatronic temperature-dependent dielectric properties measurement at 2.45 GHz using a rectangular waveguide. Proceedings, 12th International Conference on Microwave and High Frequency Heating, Karlsruhe, Germany, September 7-10, 2009, D. Prastiyanto, M. J. Akhtar et al.,.
  124. Power and performance optimization using multi-voltage, multi-threshold and clock gating for low end processors, IEEE TENCON Conference, October 2009, Singapore, 1-6, S. Qureshi and K. R. Sanjeev.
  125. BS Rapurohit, S.N. Singh and J. Østergaard, Renewable energy generation in India: present scenario and future prospects, IEEE General Meeting, July24-28, 2009, Calgary, Canada, .
  126. Using VTLN Matrices for Rapid and Computationally-Efficient Speaker Adaptation with Robustness to First-Pass Transcription Errors, in Interspeech, Brighton, 2009, p572-575, S. P. Rath, S. Umesh, and A. K. Sarkar.

127. Acoustic Class Specific VTLN-Warping using Regression Class Trees, in Interspeech, Brighton, September 2009, p556-559, S. P. Rath and S. Umesh.
128. Decentralized navigation of a formation of multi-agent vehicles, Int Conf and Exhibition on Aerospace Engineering, IISc, Bangalore, May 2009, Anjan K Ray, Laxmidhar Behera and Mo. Jamshidi.
129. Convergence analysis of turbo codes over half-duplex relay channel", Proceedings of Wireless VITAE, Aalborg, Denmark, May 17-20, 2009, Satyabrata Rout, Adrish Banerjee.
130. Small signal stability analysis of a shipboard MVDC power system, Proc. of the IEEE ESTS conference, 20-22 April 2009, Baltimore, MD, USA, pp. 135-141, Seetharama R. Rudraraju, A.K. Srivastava, S.C. Srivastava, and Noel N. Shulz.
131. A Study on the Influence of Covariance Adaptation on Jacobian Compensation in Vocal Tract Length Normalization, in Interspeech, Brighton, September 2009, p584-587, D. R. Sanand, S. P. Rath and S. Umesh.
132. Improving the Performance of VTLN Under Mismatched Speaker Conditions and Making it Approach that of Matched Speaker Conditions, in International Conference on Acoustics, Speech and Signal Processing, 2009 IEEE International Conference on Acoustics, Speech and Signal Processing, Taipei, 2009, pp.4397-4400, D. R. Sanand, S. P. Rath, S. Umesh.
133. Text-Independent Speaker Identification Using Vocal Tract Length Normalization for Building Universal Background Model in Interspeech, Brighton, September 2009, p2331-2334, K. Sarkar, S. Umesh and S. P. Rath.
134. WAMS assisted frequency and voltage stability based load shedding scheme, IEEE General Meeting, July 24-28, 2009, Calgary, Canada, Seethalekshmi K, S.N. Singh and S.C. Srivastava.
135. WAMS assisted frequency and voltage stability based load shedding scheme, IEEE PES General Meeting, July 26-30, 2009, Calgary, Canada, Seethalekshmi K, S.N. Singh and S.C. Srivastava.
136. An improved phasor assisted state estimation, IEEE General Meeting, July 24-28, 2009, Calgary, Canada, Ranjana Sodi, S.C. Srivastava and SN Singh.
137. Optimal PMU placement to ensure system observability under contingencies, IEEE General Meeting, July 24-28, 2009, Calgary, Canada, Ranjana Sodi, S.C. Srivastava and SN Singh.
138. Computational intelligence based control of DFIG used for wind turbines, NWPC 2009, September 10-11, Bornholm, Denmark, Bharat Singh, S. N. Singh and Elias Kyriakides.
139. Face feature tracking with automatic initialization and failure recovery, 2010 IEEE International Conferences on Cybernetics & Intelligent Systems (CIS 2010) and Robotics, Automation and Mechatronics (RAM 2010), (Accepted), Singapore, 28-30 June, 2010, Himansu Singh, Vipul Arora, Laxmidhar Behera and Ashish Dutta.

140. Application of advanced particle swarm optimization techniques to wind-thermal, ISAP2009 Brazil, November 8-12, 2009, S.N. Singh, J Østergaard and J. Yadagiri,.
141. Distributed generation in power system: An overview and key issues, 24<sup>th</sup> Indian Engineering Congress, NIT Surathkal, Kerala, December 10-13, 2009, S.N. Singh, J Østergaard and Naveen Jain.
142. Organic solar cell devices based on (Arylenevinylene-copyrrolenevinylene (AVPV) International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Ankur Solanki, S.S.K. Iyer and Ashish Garg.
143. A via-free left handed transmission line with radial stubs, in Proc. Asia Pacific Microwave Conference-2009, Singapore in Dec 2009, K. V. Srivastava , G. Naga Satish, A. Biswas and D. Kettle.
144. Band-pass filter using symmetrical left-handed transmission line zeroth-order resonators accepted for presentation in 5<sup>th</sup> German Microwave Conference (GeMiC) 2010 Berlin, Germany in March 2010, K. V. Srivastava, G. Naga Satish, A. Biswas and D. Kettle.
145. "n-ratio' logic based cooperative spectrum sensing using double threshold energy detection", Proceedings of the Cognitive Radio Oriented Wireless Networks and Communications (CROWNCOM), June 22-24, 2009, Shishir Kumar Srivastava, Adrish Banerjee.
146. Encapsulation with lithium fluoride and bathocuproine layers for P3HT:PCBM based solar cells on flexible poly ethylene terephthalate substrate : Proceedings of the 15<sup>th</sup> International Workshop on the Physics of Semiconductor Devices, New Delhi, Dec., 2009, Anurag Sujania, Ashish Dembla & Dr. S. Sundar Kumar Iyer.
147. Performance Analysis of Alamouti Diversity with Transmit Antenna Selection in MISO Systems. Proc. National Conference on Communications, IIT Madras, 29-31 January, 2010, Yogesh Trivedi and A K Chaturvedi.
148. An improved prony method for identifying low frequency oscillations using synchro-phasor measurements, ICPS 2009, IIT Kharagpur, December 27-30, 2009, P Tripathy, S.C .Srivastava and S.N. Singh.
149. A simple methodology to evaluate organic solar cell structure and its fabrication processes through reliability studies, 34<sup>th</sup> IEEE Photovoltaic Specialists Conference, 2009, June12-19, Philadelphia, USA, Sriramkumar Venugopalan, and S. Sundar Kumar Iyer.

#### Industrial Management & Engineering

150. Vertical Decomposition Approach for Two Stage Capacitated Warehouse Location Problems, Proceedings, ICOBM conference, Malaysia, 2010; paper number 77; Verma, Priyanka and Sharma, RRK.

151. New Lagrangian Relaxation Based Approach to solve Capacitated Lot-sizing Problem with Backlogging, Proceedings, ICOBM conference, Malaysia, 2010; paper number 82; Verma, Mayank and Sharma, RRK.
152. From Idea to Business - Finnish Model for Creating a University-based Innovation, 9<sup>th</sup> International Entrepreneurship Forum, University of Essex, Paper No.48, CVD Publication, 16<sup>th</sup> to 18<sup>th</sup> September, 2009, Conrad Istanbul, Hammalinen, M., Itkonen, M., Chatterjee, J.
153. Socio-Technical Innovation and the Role of Conversation in a Digital Ecosystem, IEEE DEST 2009, (Selected as best paper in the Ecosystem Social Science Category), 31<sup>st</sup> May to 3<sup>rd</sup> June, 2009, Proceedings CD, Part 3-June3, Pattanaik, D., and Chatterjee, J.
154. Digital Ecosystem for Knowledge and Learning : Exploring Socio-Technical Concepts and Adoption, 3<sup>rd</sup> International OPAALS Conference, 22<sup>nd</sup> -23<sup>rd</sup> March, 2010, Radisson Aracaju, Brazil, CD Publication - Paper 7, Amritesh and Chatterjee, J. (Selected for publication in Springer Lecture Notes of the Institute for Computer Sciences, Social Informatics & Telecom Engineering, LNICST)
155. The Diffusion of Social Media and Knowledge Management - Towards an Integrative Typology, 3<sup>rd</sup> International OPAALS Conference, 22<sup>nd</sup> - 23<sup>rd</sup> March, 2010, Radisson Aracaju, Brazil, CD Publication - Paper 6, Zeller, F., Chatterjee, J., Steinicke, I., Brauer, M., Lapteva, O., (Selected for publication in Springer Lecture Notes of the Institute for Computer Sciences, Social Informatics & Telecom Engineering LNICST)
156. Services Innovation - An Ecosystem Approach to Rural Digital Services, IEEE CASE 2009, 22<sup>nd</sup> to 25<sup>th</sup> August, 2009, Bangalore, Pattanaik, D. and Chatterjee, J.
157. Strategy Process in the Small Enterprise, Proceedings, Strategic Management Forum 12<sup>th</sup> Annual Conference, IIM Bangalore, 27-29 May 2009; Laikangbam, Dorendro and Sinha, Arun P.
158. A Typology of Strategies in Service Firms, Proceedings, International Academy of Business and Economics Annual Conference, Las Vegas, Oct 19-21, 2009; Sinha, Arun P, and Mahajan, Rajat.
159. A Policy for Improving Efficiency of Agriculture Pump sets in India: Drivers, Barriers and Indicators, Climate Strategies, UK, Working Paper 2009; Anoop Singh.
160. Success factors for Implementing ERP: A Conceptual Model, Proceeding of IEEE International Conference on Information Management and Engineering (ICIME 2010), China, April 2010; S. Saini, S. Nigam and S. C. Misra,
161. Stock Portfolio Management: Prediction of Risk using Text Classification, Proceedings of the International MultiConference of Engineers and Computer Scientists 2010 Vol I, pp. 621-625, March 17-19 2010, Hong Kong; Abhishek Sanwaliya, Kripa Shanker and Subhas C. Misra.

162. Categorization of News Articles: A Model Based on Discriminative Term Extraction Method IEEE Conference proceedings services, The Second International Conference on Advances in Databases, Knowledge, and Data Applications, DBKDA, pp. 149-154, April 11-16, 2010, Menuires, France; Abhishek Sanwaliya, Kripa Shanker and Subhas C. Misra.

#### Materials Science and Engineering

163. Modeling of energy dissipation in slag covered steelmaking ladles, ATIS 2009, Bangalore, 2009, December Dipak Mazumdar.
164. Modeling Energy Dissipation in Argon stirred ladles, in Procd. Advances in the Theory of Iron and Steelmaking (ATIS), Bangalore, India, 2009, pp.374-381, Dipak Mazumdar.
165. Exploration of some new tundish designs via simulation, Procd., Advances in the theory of Ironmaking and Steelmaking (ATIS), Bangalore, 2009, pp. 402-409, W. Zhongshua, AS Mujumdar and D.Mazumdar.
166. Physical modeling of slab caster tundish to improve yield and quality of steel; Jim Evans Honorary Symposium, TMS2010, Seattle, pp.191-197, Dipak Mazumdar.
167. The Behavior of Slags in Rising Bubbles, Using the Open Top Bubble Technique (Invited), In Advances in the Theory of Ironmaking and Steelmaking 2009 (ATIS-2009), Conference CD, Editor Govind Gupta, IIS Bangalore, D. G. C. Robertson, A. C. Ebiogwu and D. S. Conochie.
168. Analysis of Energy Consumption in Industrial Furnaces and Generation of Carbon Offset, in Procd. Advances in the Theory of Iron and Steelmaking (ATIS), Bangalore, India, 2009, pp.463-469, A. Dalala, R. Kumar and Satish Koria.
169. Challenges in the Processing and Fabrication of Novel Phosphoric Irons, In Processing and Fabrication of Advanced Materials, XVII Editors N.Bhatnagarand, T.Srivatsan,I.K International Publishing House Pvt Ltd., New Delhi , 2009,62-74, R.Balasubramaniam and Gadadhar Sahoo.
170. The Influence of Mg<sub>17</sub>Al<sub>12</sub> Phase Distribution on Corrosion Behavior of AM50 Alloy in NaCl Solution, In Magnesium Technology 2009, Editor Eric Nyberg, Sean Agnew, Neale Neelameggham and Mihriban Pekguleryuz, TMS, Warrendale, 2009, Surendra Madella, Yar -Ming Wang, Anil K Sachdev and R.Balasubramaniam.
171. Novel Phosphoric Irons for Concrete Reinforcement Based on Studies on the Delhi Iron Pillar, (Invited) International Conference on Frontiers of Metallurgy and Materials Technology, Hyderabad, 29-31 January 2009. R. Balsubramaniam.



172. Effect of Powder Characteristics and Processing Parameters on the Shrinkage behaviour of Copper Compacts, *Advances in Powder Metallurgy & Particulate Materials- 2008*, v. 5, Metal Powder Industries Federation, Princeton, NJ, USA, 2009, pp. 5.79-5.93, C. Padmavathi, A. Upadhyaya.
173. Mineral Characterization Using Micro X-ray Diffraction (Micro XRD), a State-of-the-art Non-destructive Technique, *Chemeca 2009 proceedings*, 120.A.122, 2009, ISBN No.: 978-08585-259225, Muthu Panniselvam, Ashish Garg, James Tardio, Stephen Grocott and Suresh Bhargava.
174. Characterization of Bauxite Pisoliths, *Chemeca 2009 proceedings*, 532.A.121, 2009, ISBN No.: 978-08585-259225, Muthu Panniselvam, James Tardio, Ashish Garg, Frank Antolasic, Stephen Grocott and Suresh Bhargava.

#### Mechanical

175. Interferometric tomography for reconstruction of temperature field in a buoyancy-induced convection during superposed fluid layers, Paper number 61, *Proceedings of the 3rd International Workshop on Process Tomography (IWPT-3) held at Tokyo, Japan during April 17-19, 2009*, Sunil Punjabi, Atul Srivastava, K. Muralidhar and P.K. Panigrahi.
176. Feedback Control of Vortex Shedding behind a Square Cylinder with Inline Oscillations, accepted for publication in the *Proceedings of the 7<sup>th</sup> World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics*, to be held in Krakow, Poland in June 2009, S. Dutta, P.K. Panigrahi, and K. Muralidhar.
177. Proper Orthogonal Decomposition Based Tomography Analysis of Concentration Gradients around a KDP Crystal Growing in Mixed Convection Regime, *Proceedings of 3rd International Workshop on Process Tomography (IWPT-3)*, held at Nihon University, Tokyo, Japan, April 17-19 2009, Atul Srivastava, K. Muralidhar and K. Tsukamoto.
178. Fast Implicit Simulation of Oscillatory Flow in Human Abdominal Bifurcation using a Schur Complement Preconditioner, accepted for publication in the *Proceedings of Euro-Par 2009 - Topic 10* to be held in August 2009, Delft, Netherlands, K. Burckhardt, D. Szczerba, J. Brown, K. Muralidhar, and G. Szekely.
179. A Fast Alternative to Computational Fluid Dynamics for High Quality Imaging of Blood Flow, accepted for publication in *MICCAI-2009 (12th International Conference on Medical Image Computing and Computer Assisted Intervention)* to be held during 20-24 September 2009 in London, UK, R. H. P. McGregor, D. Szczerba, K. Muralidhar, and G. Szekely.
180. Feedback control of vortex shedding behind a square cylinder with inline oscillations, paper number AT-9 (p54), *Proceedings of ExHFT-7 {7<sup>th</sup> World*

- Conference on Experimental Heat Transfer, Fluid Mechanics, and Thermodynamics} held at Krakow, Poland during 28 June – 03 July 2009, S. Dutta, K. Muralidhar, and P.K. Panigrahi.
181. Direct numerical simulation of forced jets, paper number LD3, presented at the 62<sup>nd</sup> Annual Meeting of the Division of Fluid Mechanics, held at Minneapolis, Minnesota during 22-24 November 2009, K. Muralidhar, Trushar Gohil, and A.K. Saha.
  182. Flow and heat transfer in a pendant liquid drop sliding on an inclined plane, paper number 345, Proceedings of the 9<sup>th</sup> International ISHMT-ASME conference held at IIT Bombay during 4-6 January 2010, Basant S. Sikarwar, K. Muralidhar, and S. Khandekar.
  183. Mathematical modeling and simulation of dropwise condensation on inclined surfaces exposed to a vapor flux, paper number 346, Proceedings of the 9<sup>th</sup> International ISHMT-ASME conference held at IIT Bombay during 4-6 January 2010, Nirmal K. Battoo, Basant S. Sikarwar, S. Khandekar, and K. Muralidhar.
  184. Effect of frequency and Reynolds number on flow in a tubular bifurcation, Proceedings of the 36<sup>th</sup> Fluid Mechanics and Fluid Power Conference 2009, held at College of Engineering, Pune, paper number 03-FM-1, Trushar Gohil, K. Muralidhar, and Dominik Szczerba.
  185. Effect of forcing frequency on flow control of a square jet, Proceedings of the 36<sup>th</sup> Fluid Mechanics and Fluid Power Conference 2009, held at College of Engineering, Pune, paper number 40-FC-1, Trushar Gohil, Arun K. Saha, and K. Muralidhar.
  186. User study and design modifications of a CNG based intermediate public transport vehicle, Indo-US Workshop on Designing sustainable Products, Services and Manufacturing Systems, August 2009, M Arun, K. Vimal and B. Bhattacharya.
  187. Modeling and Control of Underactuated Redundant Manipulators", Proc. International Conference on Automation, Robotics and Control Systems (ARCS-09), Orlando, FL, USA. \ pp 16-23 (2009), Ashish Singla, Bhaskar Dasgupta and Ashish Tewari.
  188. LES of flow past two circular cylinders in staggered, tandem and side-by-side arrangements, 8<sup>th</sup> Asian Computational Fluid Dynamics Conference, Hong Kong, 10-14 January, 2010, S. Sarkar and Sudipto Sarkar.
  189. Numerical Simulation of Flow behind Vortex Generators on a Flat Plate, 8<sup>th</sup> Asian Computational Fluid Dynamics Conference, Hong Kong, 10-14 January, 2010, N. K. Singh and S. Sarkar.
  190. Lager-Eddy Simulation for Some Flows of Engineering Interest, 11<sup>th</sup> Annual CFD Symposium, Aeronautical Society of India, Bangalore (invited paper), 11-12 August, 2009, S. Sarkar.

191. Ground effect of a circular and an elliptic cylinder in the vicinity of a plane wall, Fluid Mechanics and Fluid power (FMFP-09), Pune, India, 17-19 December, 2009, Sudipto Sarkar and S. Sarkar.
192. Large Eddy Simulation of a Laminar Separation Bubble: Applicability of SGS Models, Fluid Mechanics and Fluid power (FMFP-09), Pune, India, 17-19 December, 2009, N. K. Singh and S. Sarkar.
193. Large Eddy Simulation of a Laminar Separation Bubble: Smagorinsky and Dynamic Models, Turbulence and Shear Flow Phenomena (TSFP-6), Seoul, South Korea, 22-24 June, 2009, S. Sarkar and N. K. Singh.
194. LES of Flow over Circular and Elliptic cylinder in Proximity of Wall, Turbulence and Shear Flow Phenomena (TSFP-6), Seoul, South Korea, 22-24 June, 2009, S. Sarkar and Sudipto Sarkar.
195. Investigation on Laser Shot Peening (LSP) of Ti alloys, International Conference on Emerging Research and Advances in Mechanical Engineering, ERA-2009, Chennai, India, S. KanmaniSubbu, J. Ramkumar, N.J. Vasa.
196. Micro Fabrication through micro EDM, International Conference on Advanced Manufacturing And Automation Incama-2009, G. Karthikeyan, J. Ramkumar.
197. Parametric investigation on Laser shock processing (LSP) parameters using Dimensional Analysis, Design and Manufacturing Issues Relevant to Automotive and Allied Industries, IPRoMM-2009, Chennai, India, S. Kanmani Subbu, J. Ramkumar, N.J. Vasa.
198. Estimation of diameter during machining of Tungsten electrode by micro Block EDG process, Design and Manufacturing Issues Relevant to Automotive and Allied Industries, IPRoMM-2009, Chennai, India, G. Karthikeyan, J. Ramkumar, Shalabh.
199. Dynamic Characterization of Nano Composite Pillars, Condensed Matter Physics Workshop and ME Department Poster Presentation, IIT Kanpur, 20-22 Feb 09, Tarun Mankad, Amit Banerjee, S. Dhamodaran, J. Ramkumar and V. N. Kulkarni.
200. Experimental investigations into rotating workpiece abrasive flow finishing International conference on Wear of Materials (WOM-09), Las Vegas, USA, 2009, Mamilla Ravi Sankar, V.K.Jain and J.Ramkumar.
201. Exploring vibration aptitude and atto-gram mass sensing ability of FIB fabricated nano-pillars , International coference cum workshop on nanosciece and nanotechnology, Ansal institute of technolgy, Gurgaon, IndiaOct 12-16 2009, Amit Banerjee, Trun Mankad, S. Dhamodaran, J. Ramkumar, V. N. Kulkarni.
202. Focused ion beam fabricated nano structures: Mass sensor to opto-electronics, Theme meeting on quantum structures, BARC, Mumbai, Nov 2-3 2009, S. Dhamodaran, J. Ramkumar, V. N. Kulkarni.

203. Dimensional Analysis of Tool Wear Rate in u-EDM Milling Process, COPEN 6, International Conference on Precision, Meso, Micro and Nano Engineering, Coimbatore, 11-12 Dec 09, G. Karthikeyan, J. Ramkumar and S. Aravindan.
204. Nano-finishing of metal matrix composites using polymer rheological abrasive medium, Processing and fabrication of advanced materials (PFAM18), Tohoku University, Sendai, Japan, December 12-14 2009, Mamilla Ravi Sankar, J.Ramkumar and V.K.Jain.
205. Mechanical and Tribological behavior of Glass-Epoxy Composites Modified using XNBR Elastomer, TRIBO-INDIA Conference on Tribology of Automotive Systems, IIT Delhi, December 11-12, 2009, Vivek Kumar , A.K. Singhal, J. RamKumar , S. Aravindan, S.K. Malhotra.
206. Plasma characteristics of dry EDM, RAMTM 2010, National conference on Recent Advances in Manufacturing Technology and Management, Jadavpur University, Kolkata, 19-20 Feb 10, S. Kanmani Subbu, J. Ramkumar, S. Dhamodaran.
207. Simulation of Laminar Stratified Flow Boiling of Liquid in a Horizontal Tube by the Coupled Map Lattice Model, Proc. 2009 ASME Summer Heat Transfer Conference, July 19-23, 2009, San Francisco, California, USA. Paper No. HT2009-88487, Indrajit Chakraborty, P.S. Ghoshdastidar, G. Biswas.
208. Parametric Study of Process Parameters and Characterization of Surface Texture using Rotational-magnetorheological Abrasive Flow Finishing (R-MRAFF) Process, Proc. 2009 ASME International Manufacturing Science and Engineering Conference, MSEC 2009, October 4-7, 2009, West Lafayette, Indiana, USA. Paper No. MSEC2009-84320, Manas Das, V.K. Jain, P.S. Ghoshdastidar.
209. Designing RC Structures for Fire, Proc. 8<sup>th</sup> International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, October 15-16, 2009, Incheon, Korea, Samarth P. Ramdasi, Sudhir Misra, P.S. Ghoshdastidar.
210. The Dynamics of Gas Bubbles in a Co-flowing Liquid Ambience, Proc. 20<sup>th</sup> National and 9<sup>th</sup> International ISHMT-ASME Heat and Mass Transfer Conference, January 4-6, 2010, BARC, Mumbai. Paper No. 10HMTC214, I. Chakraborty, G. Biswas, P.S. Ghoshdastidar.
211. Satellite Bubble Formation in Co-Flowing Liquid Ambience, 8<sup>th</sup> Asian Computational Fluid Dynamics Conference, Hong Kong, January 10-14, 2010, I. Chakraborty, G. Biswas, P.S. Ghoshdastidar.
212. Design of a biped robot with torsion springs at the joints for reduced energy consumption during walk. ASME International Design Engineering Technical Conference, San Diego, USA, 2009, Santosh Pratap Singh, Ashish Dutta and Anupam Saxena.
213. Environment Modelling in Mobile Robotics through Takagi-Sugeno Fuzzy Model, Irish Signals and Systems Conference, Ireland, 2009, Meenakshi

- Gupta, T Naveen Kumar, Laximidhar Behera, K S Venkatesh and Ashish Dutta.
214. Processing and Characterization of PEEK composites using Alumina nanoparticles as reinforcements, Proceedings of the International Conference and Exhibition on Aerospace Engineering, May 18-22, IISc Bangalore, N, G. R. Iyengar, K. Ramana Reddy, K. Sundaraiah, R. K. Singh, A. Tewari and P. Venkitanarayanan.
  215. A novel replica molding process for realizing three dimensional microchannels within soft materials, Proc., ICMEMS-2009, Indian Institute of Technology-Chennai, India, Rajeev Kumar Singh, Anil B. Ghubade, Bikramjit Basu, Shantanu Bhattacharya.
  216. Bio-chip for fluorescence based quantitation of fluorescent microbeads Proc. , ICMEMS-2009, Indian Institute of Technology-Chennai, India, Anil B. Ghubade, Swarnasri Mandal, Shreya Ghoshdostidar, Rajeev Kumar Singh, Deepak Singh, R. Gurunath, Shantanu Bhattacharya.
  217. Dielectrophoretic Separation of Nano-Particle Conjugated Bacterial Cells within Micro- Scale Architecture Proc. AICHE-2009, 72H , Annual Meeting of the American Electrophoresis Society, Nashville, Tennessee, United States of America, Shantanu Bhattacharya, Swarnasri Mandal, Deepak Singh and R. Gurunath.
  218. Electrophoretic Transport of Nucleic Acids through Nano Structured Surfaces, Proc. AICHE-2009, 306C, Electrokinetic Behavior of Micro and Nano-particles: Fundamentals and Applications, Nashville, Tennessee, United States of America, Shantanu Bhattacharya, Arnab Ghosh, Deepak Singh, Tarak Kumar Patra, Jayant K. Singh and R. Gurunath.
  219. Development of a Novel Technique to Measure Depth of Micro-channels: A Practical Approach for Surface Metrology, Proc. Of the 3<sup>rd</sup> International Conference on Advances in Mechanical Engineering, January 4-6, 2010, S.V. National Institute of Technology, Surat - 395007, Gujrat, India, A.V. Kulkarni, V.K. Jain, K.A. Misra.
  220. Experimental and Numerical Analysis of Double Sided Incremental Forming, International Manufacturing Science and Engineering Conference MSEC - 2009, October 4-7, 2009, Indiana, USA, Y. Wang, W Wu, Y Huang, N V Reddy, J Cao.
  221. Incremental Sheet Metal Forming, The 5<sup>th</sup> India-Japan Joint Seminar on Production, measurement, QC& Micro/Nano Manufacturing, Tokyo, Japan, March 15-19, 2010, 39-45, N V Reddy.
  222. Environment Monitoring and Control of a Polyhouse Farm through Internet, Proc. 23<sup>rd</sup> National Convention of Agriculture Engineers and National Seminar on Agricultural Mechanization through Entrepreneurial Development, Rahuri, Ahmednagar, February 6-7, 2010, Sonawane Y. R., Khandekar S., Mishra B. K., SoundraPandian K. K.,

223. Flow and Heat Transfer in a Pendant Liquid Drop Sliding on an Inclined Plane, Proc. 20th National and 9th International ISHMT-ASME Heat and Mass Transfer Conference, pp. 1322-1329, Mumbai, India, January 4-6, 2010, Sikarwar B., Muralidhar K. and Khandekar S.
224. Thermo-hydrodynamics of Developing Flow in a Rectangular Mini-channel Array, Proc. 20th National and 9th International ISHMT-ASME Heat and Mass Transfer Conference, pp. 1342-1349, Mumbai, India, January 4-6, 2010, Agarwal G., Moharana M. K. and Khandekar S.
225. Mathematical Simulation of Dropwise Condensation Exposed to Vapor Flux, Proc. 20th National and 9th International ISHMT-ASME Heat and Mass Transfer Conference, pp. 1330-1336, Mumbai, India, January 4-6, 2010, Battoo N. K., Khandekar S. and Muralidhar K.
226. Hydrodynamic Study of an Oscillating Meniscus in a Square Mini-Channel, Proc. Micro/Nanoscale Heat and Mass Transfer International Conference (Paper No. #MNHMT2009-18322), Shanghai, China, December 18-21, 2009, Shekhavat Y. S., Khandekar S. and Panigrahi P. K.
227. Thermal Performance Characterization of Embedded Pulsating Heat Pipe Radiators by Infrared Thermography, Proc. 6th International Symposium on Multiphase Flow, Heat Mass Transfer and Energy Conversion (Paper No. FG-02), Xian, China, July 11-15, 2009, Hemadri V. and Khandekar S.
228. Producing Hydrogen from Ethanol in a Microfuel Processor: Recent Developments and Challenges, Proc. 6th International Symposium on Multiphase Flow, Heat Mass Transfer and Energy Conversion (Paper No. RE-10), Xian, China, July 11-15, 2009, Moharana M. K., NageswaraRao P., Khandekar S. and Kunzru D.
229. A Review of Nadir Point Estimation Procedures Using Evolutionary Approaches: A Tale of Dimensionality Reduction. Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany: Springer, (pp. 339--354), 2009, Deb, K. and Miettinen, K.
230. Simulation studies on a genetic algorithm based tomographic reconstruction using time-of-flight data from ultrasound transmission tomography. Proceedings of the International Conference on Adaptive and Natural Computing Algorithms (ICANNGA-09) (LNCS 5495), pp. 253--262, 2009, Kodali, S. P., Deb, K., Bandaru, S., Munshi, P., and Kishore, N. N..
231. Faster hypervolume-based search using Monte Carlo sampling. Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany: Springer, pp. 313 – 326, 2009, Bader, J., Deb, K., and Zitzler, E.
232. Discrete time-cost tradeoff with a novel hybrid meta-heuristic. Proceedings of the Multiple Criterion Decision Making (MCDM-2008) Conference. Lecture Notes in Economics and Mathematical Systems, 634. Heidelberg, Germany:

- Springer, (pp. 177--188), 2009, Srivastava, K., Srivastava, S., Pathak, B. K. and Deb, K..
233. Constructing test problems for bilevel evolutionary multi-objective optimization. Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 1153--1160), 2009, Deb, K. and Sinha, A..
  234. Search based evolutionary multi-objective optimization algorithm for constrained and unconstrained problems. Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 2919--2626), 2009, Sindhya, K., Deb, K., and Miettinen, K.
  235. Comparing GA with MART to tomographic reconstruction of ultrasound images With and without noisy input data. Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 2963--2970), 2009, Kodali, S., Deb, K., Munshi, P., and Kishore, N. N.
  236. Constrained many-objective optimization: A way forward. Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 545--552), 2009, Saxena, D., Deb, K., and Ray, T.
  237. Optimization of the sizing of a solar thermal electricity plant: Mathematical programming versus genetic algorithms, Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 1193--1200), 2009, Cabello, J. M., Cejudo, J. M., Luque, M., Ruiz, F., Deb, K. Tewari, R.
  238. Performance assessment of the hybrid archive-based micro genetic algorithm (AMGA) on the CEC09 test problems. Proceedings of the Congress on Evolutionary Computation (CEC-2009). Piscataway, NJ: IEEE Press. (pp. 1935--1942), 2009, Tiwari, S., Fadel, G., Koch, P. and Deb, K..
  239. Solving multi-objective bilevel optimization problems using evolutionary algorithms. Proceedings of Fifth International Conference on Multi-Criterion Optimization (EMO-2009). Heidelberg: Springer. (pp. 110--124), 2009, Deb, K. and Sinha, A.
  240. A hybrid integrated multi-objective optimization procedure for estimating nadir point. Proceedings of Fifth International Conference on Multi-Criterion Optimization (EMO-2009). Heidelberg: Springer. (pp. 569--583), 2009, Deb, K., Miettinen, K., and Sharma, D.
  241. An evolutionary approach for bilevel multi-objective problems. Proceedings of 20th International Conference on Multiple Criteria Decision Making (MCDM-09), (Also Communications in Computer and Information Science No. 35 entitled 'Cutting-Edge Research Topics on Multiple Criteria Decision Making') Berlin: Springer, (Chengdu, China). (pp. 17--24), 2009, Deb, K. and Sinha, A.

## Humanities and Social Sciences

242. People's Attitude towards Groundwater Arsenic Contamination in West Bengal, India, *The Eastern Anthropologist*, 62: 1, 2009, 61-83 - Pradip Swarnakar and A.K. Sharma.
243. Intra- and inter-household difference in antenatal care, delivery practices and postnatal care between the last neonatal deaths and last surviving children in a peri-urban area, *Journal of Biosocial Science*, Accepted, 2010, Rohini Ghosh and A.K. Sharma.
244. HIV/AIDS in the Framework of Medical Sociology, *Journal of Social Sciences*, 11:1, 2009, 115-130 - A.K. Sharma.
245. Contrastive Polysemy in Concept Space: Implications for Multilingual Semantic Lexicons, Bhattacharya, P., C. Fellbaum and P. Vossen (Eds.), *Principles, Construction and Application of Multilingual WordNet*, Proceedings of the Fifth Global WordNet Conference, Narosa Publishers, 34-38, 2010. - S. Banerjee, S., H. Karnick & A. Raina.
246. Word versus Word-meaning: A la Śabdānirṇaya, Proceeding of the National Seminar on Mind and Meaning, Department of Philosophy in collaboration with the Department of Neural and Cognitive Sciences, University of Hyderabad, March, 2010 (forthcoming)- Nirmalya Guha.
247. Moral Theorizing in India - Asian Philosophical Congress, New Delhi, March 2010, Vineet Sahu.
248. Estimation of Regression Coefficient of the Selected Population, with an Application to Portfolio Theory of Corporate Finance (Co-authors: Dr. S. Gangopadhyay and Dr. A. Kar-Gangopadhyay), in Proceedings of 18<sup>th</sup> International Conference of 'Forum for Interdisciplinary Mathematics' on Interdisciplinary Mathematical and Statistical Techniques, held during August 2-4, 2009, at Jaypee University of Information Technology, Waknaghat, Dist. Solan (Near Shimla), Himachal Pradesh, India. - Praveen Kulshreshtha.

## Chemistry

249. Three-dimensional image formation under single-photon ultra-short pulsed illumination, *SPIE Proc.* 7378, 737827 (2009), Arijit Kumar De and Debabrata Goswami.
250. Towards spatio-temporal control in optical trapping, D. Roy, A.K. De and Debabrata Goswami, *SPIE Proc.* 7400, 74000G, 7 pages, (2009).
251. Femtosecond spatiotemporal control, (Invited Talk, International Conference on Optics and Photonics, October 29-30, 2009), *Proc. ICOP-2009*, 4 pages (2009), Debabrata Goswami, T. Goswami, A.K. De, D. Roy, D. Das, and S.K. Karthick.



252. Spatio-temporal control in multiphoton fluorescence laser-scanning microscopy, SPIE Proc. 7569, 756972 (2010), Arijit Kumar De, Debjit Roy and Debabrata Goswami.
253. Encoding molecular fragments with chirped femtosecond pulses for quantum information processing, Asian Quantum Information Quantum Computing-2009, Nanjing, China, Aug. 21-27, 2009, Conference proceedings AQIS'09, T. Goswami, S. K. Karthick Kumar, A. Dutta, D. Goswami.
254. Decoding Femtosecond Coherent Information: Towards Quantum Information Processing, Asian Quantum Information Quantum Computing-2009, Nanjing, China, Aug. 21-27, 2009, Conference proceedings AQIS'09, I. Bhattacharrya, A. Dutta, S. Ashtekar, S.K. Maurya and D. Goswami.
255. Theory of impurity induced step pinning and recovery in crystal growth from solutions, in Recent Advances in Thermodynamic Research including Nonequilibrium thermodynamics, Proceedings of the 3<sup>rd</sup> National Conference on Thermodynamics of Chemical and Biological Systems, Nagpur, 2008, Madhav Ranganathan and John D. Weeks.

#### Mathematics and Statistics

256. A simple modal logic for reasoning about revealed beliefs. In: LNCS 5590, Proc. 10<sup>th</sup> European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2009), Verona, Italy, July, 2009, Eds. Sossai, C. and Chemello, G. (Springer-Verlag), 805-816, Mohua Banerjee, D. Dubois.
257. A logic for complete information systems: In: LNCS 5590, Proc. 10<sup>th</sup> European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2009), Verona, Italy, July, 2009, Eds. Sossai, C. and Chemello (Springer-Verlag), 829-840, M. A. Khan, Mohua Banerjee.
258. An algebraic semantics for the logic of multiple-source approximation system. In: LNCS 5908, Proc. Rough Sets, Fuzzy Sets, Data Mining and Granular Computing (RSFDGrC 2009), Delhi, India, December, 2009, Eds. Sakai, H. et al. (Springer Verlag), 69-76, M. A. Khan, Mohua Banerjee.
259. Hermite Coalescence Fractal Interpolation Function, Proceedings of International Conference on Scientific Computing, Las Vegas, USA, (2009), 53-57, #CSC5035, G.P. Kapoor, M. Sahoo.
260. Estimation of Diameter Machining of Tungsten Electrode by Micro Block EDG Process. Proceedings of IPROMM 2009 (National Conference on Design and Manufacturing Issues in Automotive and Allied Industries), 10-11 July 2009, Chennai, India, Eds. R. Gnanamoorthy, M. Kamraj and M. Sreekumar. G. Karthikeyan, J. Ramkumar, Shalabh.

## Physics

261. Origin of time dependent effects observed in phase separated systems  
Kumar, D., Rajeev, K. P., Alonso, J.A., Martinez-Lope, M.J. 2009 Journal of Physics : Conference Series 150, p 42103 (4 pages)}
262. RBS/channeling studies of swift heavy ion irradiated GaN layers, AIP Conference Proceedings 1099 (2009) 385, N Sathish, S Dhamodaran, A P Pathak, C Muntele, D Ila, S A Khan and D K Avasthi.
263. Optimization of pulse reversal electrodeposition with fine grains and low roughness for GaAs RF MEMS structures, Proceedings of 2<sup>nd</sup> International Workshop on Electron Devices and Semiconductor Technology (2009) 5166124, G S Saravanan, K M Bhat, S D Prasad, S Chaturvedi, R Muralidharan, S Dhamodaran, N Sathish.
264. Coherent control of metamaterials, Proc. SPIE, Vol. 7392, 73921S (2009); Sangeeta Chakrabarti, S. Anantha Ramakrishna, and Harshawardhan Wanare
265. Flux penetration asymmetry and inhomogeneous pinning in  $\text{CaFe}_{1.94}\text{Co}_{0.06}\text{As}_2$ ; Proceedings of the DAE solid state physics symposium (2009) Vol. 54, 811 - 812, Pabitra Mandal, Gorky Shaw, S. S. Banerjee, Neeraj Kumar, S. K. Dhar, A. Thamizhavel.
266. Novel large amplitude low frequency velocity fluctuations in the elastic phase of driven vortex matter; Proceedings of the DAE solid state physics symposium (2009) Vol. 54, 73- 76 Proceedings of the DAE solid state physics symposium (2009) Vol. 54, 73- 76, Shyam Mohan, Jaivardhan Sinha, S. S. Banerjee, A. K. Sood, S. Ramakrishnan and A. K. Grover.
267. Visualization of flux penetration in a high- $T_c$  superconductor; Proceedings of the DAE solid state physics symposium (2009), Vol. 54, 807-808, Gorky Shaw, Pabitra Mandal, Jaivardhan Sinha and S. S. Banerjee.
268. Magneto optical imaging of laser irradiated hard magnetic material; Proceedings of the DAE solid state physics symposium (2009), Vol. 54, 1083-108, Jaivardhan Sinha, S. S. Banerjee, Subhendu Kahaly and G. Ravindra Kumar.
269. Proceedings of 23rd National Symposium on Plasma Science & Technology (PLASMA-2008), Mumbai 2008, Journal of Physics: Conference Series 208, p.012039, 2010, D. Nath, M. K. Verma, T. Lessiness, D. Carati, I. Sarris.
270. Anisotropic turbulence studies of liquid metal MHD flows using numerical simulations, in the Proceedings of 23rd National Symposium on Plasma Science & Technology (PLASMA-2008), Mumbai 2008, Journal of Physics: Conference Series 208, p. 012007, 2010, R. Kumar, M. K. Verma, and V. Kumar.

271. Impedance spectroscopy and structural studies on silver doped hydroxyapatite, Proceedings of the MRS Fall Meeting at Boston 2009, 1239, VV07-18, Rajeev Gupta, B Singh, S Kumar, B Basu.
272. Polarized Fluorescence study in human cervical tissue: Change in auto-fluorescence through different excitation wavelengths, PROC.SPIE, 7561, 75610J, 2010 San Francisco, USA, Rajbeer Singh, Krishna Kumar Singh Tomar, Meghdoot Majumdar, Prashant Shukla, Asima Pradhan, Rekha Gupta, Sonal Jain, Chayanika Pantola, Asha Agarwal and Kiran Pandey.
273. Characterizing polarized auto-fluorescence of Normal and Benign tissues using Singular Value Decomposition and Wavelet Transform, PROC.SPIE, Vol. 7563, 756308, 2010 San Francisco, USA, Anita H. Gharekhan, Siddharth Arora, Ashok N. Oza, M.B. Sureshkumar Asima Pradhan, and Prasanta K. Panigrahi.
274. A Principle component Analysis on Mueller decomposed Depolarization Power Images of Human Cervical Tissues, National Laser Symposium (NLS09), BARC Mumbai, India (2010), Prashant Shukla, Jaidip Jagtap, Prabodh Kr. Pandey, Meghdoot Majumdar, and Asima Pradhan.

## CONFERENCES ATTENDED OUTSIDE IIT KANPUR

### Aerospace

1. IISc Centenary International Conference and Exhibition on Aerospace Engineering, Bangalore 2009, Venkatesan. C.
2. Invited Speaker, Symposium on Applied Aerodynamics and Design of Aerospace Vehicles, NAL, Bangalore, 2009, Venkatesan. C.
3. AIAA Conference on Flight Mechanics, Chicago, August 2009, A. K. Ghosh.

### Biological Science and Bio-engineering

4. Fundación BBVA - IRB Barcelona BioMed Conference on Modelling Cancer in Drosophila, Barcelona, 14-16 September 2009, Pradip Sinha.
5. Emerging Concerns & Advances in Chemistry, Lady Brabourne College, Kolkata - 4th and 5th February, 2010, Amitabha Bandyopadhyay.
6. Eminent chemists from around the country attended the conference. Invited talk was presented by Amitabha Bandyopadhyay.
7. Chaired a session on Functional Genomics II in the 8<sup>th</sup> Asia-Pacific Bioinformatics Conference. Venue: Indian Institute of Science, Bangalore, 18<sup>th</sup> to 21<sup>st</sup> January 2010, R. Sankararamakrishnan.
8. Molecular Basis of Locus Heterogeneity in Lafora Progressive Myoclonus Epilepsy: Invited talk delivered in the International Conference on the Role of Genetics in Clinical Practice, organized by the Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow (March 6 to 8, 2010), Ganesh S.
9. Impact of alternative mRNA splicing in the etiology of Lafora progressive myoclonus epilepsy: Invited talk delivered in the International Conference on Genetic and Molecular Diagnosis in Modern Medicine and Biology, organized by the Yenepoya University, Mangalore, February 27, to March 2, 2010, Ganesh S.
10. Defects in proteolytic pathways underlie neuropathology in Lafora disease: Invited talk delivered in the NeuroUpdate 2010, organized jointly by the Calcutta National Medical College and the Indian Institute of Chemical Biology, Kolkata, February 14, 2010, Ganesh S.
11. Genetic diagnosis in monogenic disorders: promises, challenges and pitfalls: Invited talk delivered in the International Symposium on Molecular Pathology and Applied Genomics, organized by SRL, Global Knowledge Forum, Super Religare Laboratories Limited, Mumbai, November 6 and 7, 2009, Ganesh S.
12. Discovery of Novel Modulators of Neurotoxicity as Potential Therapeutic Interventions in Neurodegenerative Disorders: Invited talk delivered in the Translational Health Research: Pathways to Discovery, organized by the King George Medical University, Lucknow, April 28-29, 2009, Ganesh S.

13. Design of cryogel biomaterials for bioprocess and tissue engineering applications. Emerging Paradigms in Biochemical Engineering, 9-10<sup>th</sup> October, 2009. Banaras Hindu University, India - Key note talk and Session Chair, Kumar, A.
14. New design of biomaterials for biomedical applications. NFTDC, Hyderabad, 21<sup>st</sup> November, Invited Talk, Kumar, A.
15. An overview on cryogel polymeric scaffolds with special approach to cartilage tissue engineering. 8-10<sup>th</sup> July 2009, TCES meeting, University of Glasgow, Glasgow, Ireland, Kumar, A.
16. Asian Neurogastroenterology and Motility Association, Seoul, Korea, April 2009, presented two contributed papers, Anupam Pal.
17. XXVII Annual Conference of Indian Academy of Neurosciences, Jaipur, India, 2009, presented invited lecture, Anupam Pal.
18. A genetic screen to identify partners of PUF-8, a *C. elegans* member of the PUF family of RNA-binding proteins. International Worm Meeting, UCLA, Los Angeles, CA, USA2009, Subramaniam K.

#### Chemical

19. Development and Application of a Software Tool for Design of Small Interfering RNA, 1<sup>st</sup> IFIP International Conference on Bioinformatics. Sardar Vallabhbhai National Institute of Technology, Surat, March 2010, A. Chaudhary, S. Srivastava and S. Garg.
20. Time - stress and time - temperature superposition in soft glassy materials, SPS March Meeting on Soft Matter Physics, School of Physical Sciences, Jawaharlal Nehru University, New Delhi, March 2010, Y M Joshi.
21. Synthesis, fabrication and functionalities of polymeric and carbon structures on small scales: environment, energy and MEMS, 2<sup>nd</sup> International Symposium on Nano-Biotechnology, Ulsan, South Korea, March 2010, A. Sharma.
22. Steam Reforming of Ethanol over Rh/CeO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> catalysts in a Microchannel Reactor, accepted for presentation in 11<sup>th</sup> International Conference on Microreaction Technology, Kyoto, Japan, March 2010, N.R. Peela, A. Mubayi and D. Kunzru.
23. SPS March Meeting on Soft Matter Physics, School of Physical Sciences, Jawaharlal Nehru University, New Delhi, March 2010, gave an invited talk, Y M Joshi.
24. Genetic Algorithm (GA), Multi-objective Optimization (MOO) and Biomimetic Adaptations, L&T Lecture, AZeotropy 2010, IIT Bombay March 2010, S K Gupta.

25. Fluid Near Surfaces, Indo-American Frontiers of Engineering, Agra, March 2010, J.K. Singh.
26. Polymerization Reaction Engineering: a Personal Journey, Inaugural Sukrut Ozarkar Memorial Lecture, MIT, Pune, February 2010, S.K. Gupta.
27. Genetic Algorithm (GA), Multi-objective Optimization (MOO) and Biomimetic Adaptations, LIT, Nagpur, February 2010, S.K. Gupta.
28. Electrolyte-Insulator-Semiconductor Systems in Healthcare and Environmental Sensing, in a UGC sponsored conference, Chemical Sensors – an Update, PES College of Arts and Sciences, Farmagudi, Goa, January 2010, S. Panda.
29. Anomalous creep flow dynamics of aging polymer-clay nanocomposite, V<sup>th</sup> Rheology of complex fluids symposium, IIT Madras, January 2010, Y.M. Joshi.
30. Role of redox mediators in azo dye decolorization and complete mineralization of the aromatic amines in a sequential anaerobic-aerobic bioreactor. Young Reseachers' Conference (YRC) 2010. ICT Mumbai, January 2010, P Barsingh and S. Garg.
31. Versatile Nanobioengineered Materials for bioapplications presented in NATCHEE, January 2010, Agra, S. Sivakumar.
32. Preparation, surface functionalization and characterization of carbon micro/nano fibers in adsorption applications, NATCHEE 2010, Agra, January 2010, N. Verma.
33. Enzymatic conversion of lactose in to galacto-oligosaccharides, Indo-Australian workshop held at Jadavpur University, December 2009, P.K. Bhattacharya.
34. International Workshop on 'Advances in Membrane Technology for Water Treatment, Environment and Clean Energy' at Central Glass & Ceramic Research Institute (CSIR) on December 2009 as Chairman of Session on (8<sup>th</sup> December) on 'Hollow Fibre, Capillary Membranes & CO<sub>2</sub> Capture', P.K. Bhattacharya.
35. In situ Sulfiding of NiMo/Al<sub>2</sub>O<sub>3</sub> Hydrosulfurization Catalyst, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, S. Farooqui, A. Vignesh and D. Kunzru.
36. Pervaporation of methyl-ethyl ketone and water mixture: Development of concentration profiles across membrane, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, S. Ravi, T. Ravi and P. K. Bhattacharya.
37. CO<sub>2</sub> Methanation over Supported Bimetallic Co-Fe Catalysts, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, A. Banerjee, S.C. Nayak and G. Deo.
38. Determination of the optimal reduction temperature of the Ni-Al<sub>2</sub>O<sub>3</sub> catalysts used for the CO<sub>2</sub> hydrogenation reaction, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, S. Sengupta and G. Deo.

39. Transesterification of Soybean oil with Homogeneous and Heterogeneous Base Catalyst, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, A.K. Gupta, S. Garg and G. Deo.
40. In situ FTIR Investigations of CO<sub>2</sub> Methanation Reaction Activity over Supported Bimetallic Ni-Fe Catalysts, CHEMCON-2009, IChE Annual Meeting, Vishakapatnam, December 2009, D. Pandey and G. Deo.
41. Acceleration of azo dye decolorization by using redox mediators and complete biodegradation of the aromatic amines in the sequential bioreactor system, CHEMCON-2009, Annual IChE Meeting, Visakhapatnam, December 2009, P Barsingh and Sanjeev Garg.
42. Versatile Nanoengineered Materials presented in Golden Jubilee Symposium on Fabrication at Small Scale (FASS) and Indo-US conference on Fabronics: Science of Advanced Fabrication, December 2009, S. Sivakumar.
43. SERC School on Machine Learning and AI Techniques for Petroleum and Petrochemical Industry, MIT, Pune: Genetic Algorithm, Multi-objective Optimization and Applications, December 2009, S.K. Gupta.
44. Carbon nanofibers, nanoparticles, and molecular sieves in environmental remediation and pharmaceutical applications, First Asian Carbon Society, Delhi, November 2009, N. Verma.
45. Process Engineering Principles in Chemical Sensing, in Advances in Chemical Engineering, DMSRDE, Kanpur, November 2009, S. Panda.
46. Electrophoretic Transport of Nucleic Acids through Nanostructured Surfaces, AIChE Annual Meeting, Nashville, USA, November 2009, A. Ghosh, D. Singh, T.K. Patra, J.K. Singh, R. Gurunath.
47. Critical Properties of fluids in nanopores: Crossover from 3D to 2D, AIChE Annual Meeting, Nashville, November 2009, S.K. Singh and J.K. Singh.
48. Phase transitions of associating fluids near surfaces, AIChE Annual Meeting, Nashville, November 2009, S. Khan, S.K. Kwak and J.K. Singh.
49. Structure and phase behaviours of confined fluids in single walled nanotubes, AIChE Annual Meeting, Nashville, November 2009, H. Huang, J.K. Singh and S.K. Kwak.
50. Self-organized meso-fabrication and functionalities in confined soft materials, TWAS 11th General Conference & 20th General Meeting, Durban, October 2009, A. Sharma.
51. International Conference on Chemical, Biological & Environmental Engineering (CBEE 2009), Singapore Iron Doped Microporous Activated Carbon (Phenolic resin) as an Adsorbent for Arsenic Removal, October 2009, A. Sharma, N. Sankararamkrishnan, A. Sharma and N. Verma.

52. Significance of Pore Size and Porosity of Mesoporous Materials Over its Surface Area for Separation of Vegetable Oil from an Aqueous Solution, International Conference on Separation Process, Varanasi, October 2009, S.K. Singh and J.K. Singh.
53. Synthesis, surface functionalization and characterization of carbon nanofibers and nanoparticles in separation and purification applications, International Conference on Separation Processes, IT BHU, October 2009, N. Verma.
54. Three dimensional numerical modeling of horizontal axis planetary mill with variable transmission ratio, International Seminar on Mineral Processing Technology, Bhubaneswar, October 2009, A. Bhateja, P. Prakash, I. Sharma, B.K. Mishra and J.K. Singh.
55. Time-Temperature superposition in soft glassy materials, 4<sup>th</sup> Asian Particle Technology Symposium (APT2009), New Delhi, September 2009, Y.M. Joshi.
56. Washcoating of  $\gamma$ -Alumina on Stainless Steel Microchannels, 3<sup>rd</sup> International Conference on Structured Catalysts and Reactors (ICOSAR-3), Ischia, Naples, Italy, September 2009, N.R. Peela, A.Mubayi and D. Kunzru.
57. Molecular dynamics of nanoscale wetting of water on grooved patterned surfaces, 4<sup>th</sup> Asian Particle Symposium (APT 2009), Delhi, September 2009, R.C. Dutta and J.K. Singh.
58. Wetting transition and boundary tension of dimer forming associating fluids, 4<sup>th</sup> Asian Particle Symposium (APT 2009), Delhi, September 2009, S. Khan and J.K. Singh.
59. Vapor-liquid critical and interfacial properties of semi-flexible chain molecules in nanopores-A molecular modeling study, 4<sup>th</sup> Asian Particle Symposium (APT 2009), Delhi, September 2009, J.K. Singh and S.K. Singh.
60. 4<sup>th</sup> Asian Particle Technology Symposium (APT2009), New Delhi, September 2009, chaired a session and gave an invited talk, YM Joshi.
61. Critical Properties of fluids in nanopores: Crossover from 3D to 2D. Thermodynamics 2009, Imperial College London, September 2009, S.K. Singh and J.K. Singh.
62. Plasma Reaction Engineering - Silicon Etch Applications, in a DST sponsored workshop, Plasma Engineering Applications of Process Technologies, IISc Bangalore, August 2009, S. Panda.
63. Alkane ODH Reaction on  $V_2O_5/TiO_2-Al_2O_3$  Catalysts: In-situ DRIFT and Reactivity studies, 8th World Congress of Chemical Engineering, Montreal, Canada, August 2009, D. Shee and G. Deo.
64. Producing Hydrogen from Ethanol in a Microfuel Processor: Recent Developments and Challenges, paper no.RE-10, 6<sup>th</sup> International Conference on Multiphase Flow, Heat Mass Transfer and Energy Conversion, Xi'an, China, July 2009, M.K.Moharana, N.R. Peela, S. Khandakar and D. Kunzru.



65. Advances in Chemical Engineering and Process Technology, NCL Diamond Jubilee Symposium, Pune, June 2009, chaired a session and gave an invited talk, YM Joshi.
66. Time-Temperature superposition in soft glassy materials, Advances in Chemical Engineering and Process Technology (ACEPT), National Chemical Laboratory, Pune, June 2009, Y.M. Joshi.
67. Biomimetic Adaptation of NSGA-II-aJG using the Biogenetic Law of Embryology for Multi-objective Optimization, Advances in Chemical Engineering and Process Technology (ACEPT), National Chemical Laboratory, Pune, June 2009, S.K. Gupta.
68. Future directions in chemical engineering research, NCL Diamond Jubilee Symposium, Advances in Chemical Engineering and Process Technologies (ACEPT), National Chemical Laboratory, Pune, June 2009, A. Sharma.
69. Comparative Study of Monolithic Reactors with Conventional Multi-Phase Reactors, NCL Diamond Jubilee Symposium, Advances in Chemical Engineering and Process Technologies (ACEPT), National Chemical Laboratory, Pune, June 2009, M.K. Aswani and D. Kunzru.
70. Direct computation of anisotropy of crystal-melt interfacial energy of silicon by simulation, SERC Symposium: Molecular and Mesoscale Simulations, I.I.Sc. Bangalore, May 2009, P.A. Apte.
71. Delivered a lecture and tutorial session on Thermodynamic Integration Methods at the SERC School on Molecular Simulations, I.I.Sc. Bangalore, May 2009, P.A. Apte.

#### Civil

72. Moisture sensitivity study on some aggregate-bitumen mixes, Roads in high precipitation areas, Indian Roads Congress, Guwahati, February 19-20, 2010, Dhasmana, H. and Das, A.
73. Perpetual pavements: innovations in pavement design, Civil Engineering Conference - Innovations Without Limits, September 18-19, 2009, NIT Hamirpur, Hamirpur, pp. 46-48, Das, A. and Ghosh, A.
74. Key-note address, Perpetual pavements: innovations in pavement design Civil Engineering Conference - Innovations Without Limits, September 18-19, 2009, NIT Hamirpur, Hamirpur by Das A.
75. Seismic passive earth pressure with varying shear modulus: pseudo-dynamic approach. Indian Geotechnical Conference (IGC-2009) 18-20 February, R.V.R. & J.C College of Engineering, Guntur, India, 2010, Ghosh, P. and Sreevalsa. K..
76. Seismic active earth pressure with varying shear modulus in backfill - pseudo-dynamic approach. International Conference on Performance-Based Design in Earthquake Geotechnical Engineering - from case history to practice (IS-Tokyo 2009) 15-18 June, Tokyo, Japan, 2009, Sreevalsa. K. and Ghosh, P.

77. Air Pollution and Health: Bridging the Gap between Sources and Health Effects, Golden Jubilee Lecture delivered at Department of Chemistry, DBS College, Kanpur, 9<sup>th</sup> Dec, 2009, Tarun Gupta
78. Development and Performance Evaluation of an Indigenously Developed Air Sampler Designed to Collect Submicron Aerosol, INAE Annual Convention at IGCAR, Kalpakkam, 17<sup>th</sup> Dec, 2009, Tarun Gupta.
79. Exploring the Health Effects of Primary and Secondary Particles from Diesel Exhaust. Krishna Kumar Budania, Sudhir Gupta, Tarun Gupta and Avinash Kumar Agarwal, Poster presentation at the workshop on Advances in Combustion and Transportation, Energy Conclave, IIT Kanpur, (8-15<sup>th</sup> Jan, 2010).
80. Exploring the Health Effects of Primary Vs Secondary Particulate Matter Present in Diesel Engine Exhaust, Platform presentation at the workshop on Advances in Combustion and Transportation, Energy Conclave, IIT Kanpur, 8-15<sup>th</sup> Jan, 2010, Tarun Gupta.
81. Design, Development and Field Evaluation of an Air Sampler at IITK to Collect Submicron Ambient Particles. Tarun Gupta, Poster presentation, Open House, IIT Kanpur, (8<sup>th</sup> Feb, 2010).
82. Air Pollution Climate and Health: Bridging the Gap from Sources to Effects, Presentation for Pioneer Batch Golden Jubilee Reunion at IIT Kanpur, 20<sup>th</sup> Feb, 2010, Tarun Gupta.
83. Measurement and Analysis of Toxic Metals Concentrations Influencing Continental Atmosphere, National Research Conference on Climate Change, IIT Delhi, 5<sup>th</sup>-6<sup>th</sup> Mar, 2010, Tarun Gupta.
84. Development and Field Evaluation of a PM<sub>2.5</sub> Sampler, Poster presented in International Conference of Environmental Health and Technology, IIT Kanpur, 15<sup>th</sup> -17<sup>th</sup> Mar, 2010, Jaiprakash and Tarun Gupta.
85. Development of a Continuous Annular Photocatalytic Reactor for the Control of Volatile Organic Compounds using TiO<sub>2</sub> Nanoparticles., Poster presented in International Conference of Environmental Health and Technology, IIT Kanpur, 15<sup>th</sup> -17<sup>th</sup> Mar, 2010, R. Mohanan, P.K. Nagar, S. Agarwal, M. Sharma and Tarun Gupta.
86. The Lifeline Earthquake Engineering in a Multi-hazard Environment (TCLEE 2009), Oakland, California., USA, June 28 - July 1, 2009, Presenting contributed paper by Samit Ray Chaudhuri.
87. IGCP 582: Tropical Rivers: Hydro-Physical Processes, Impacts, Hazards and Management, La Plata, Argentina, Sept. 23, 2009, Sinha, Rajiv.
88. Titan Through Time, NASA Goddard Space Flight Center, Greenbelt, US, 6-8 April, 2010 by Tripathi, S.N.

## Computer Science & Engineering

89. International Conference on Algorithmic Aspects in Information and Management (AAIM 2009), San Francisco, USA, June 15-17, 2009, Sumit Ganguly.
90. International Conference on Combinatorial Optimization and Applications, (COCOA 2009), Huangshan, Yellow Mountains, China, June 10-12, 2009, Sumit Ganguly.
91. European Symposium on Algorithms (ESA 2009), Copenhagen, Denmark, September 7-9, 2009, Sumit Ganguly.
92. COMSNETS 2010, Bangalore Jan 4-8, 2010, R.K. Ghosh.
93. Computability in Europe, Heidelberg, July 2009, Invited talk Conference on Computational Complexity, Paris, July 2009, presented a paper, Manindra Agrawal.
94. India Software Engineering Conference 2010 Infosys, Mysore, India, Feb 25-27, 2010 (Programme Committee Chair), Sanjeev K Aggarwal
95. LIX Colloquium Reachability Problems'09. September 23rd-25th 2009, Ecole Polytechnique, France. Presented a contributed paper, Anil Seth.
96. Indo-French Workshop on Automata Concurrency and Timed Systems, ACTS II. Chennai Mathematical Institute, Feb. 1-3, 2010. (Type of participation: attended the workshop), Anil Seth.

## Electrical

97. Wireless VITAE, Aalborg, Denmark, May 17-20, 2009, presented contributed paper, Banerjee Adrish.
98. CROWNCOM 2009, Hamburg, Germany, June 22-24, 2009, chaired a session and presented contributed paper, Banerjee Adrish.
99. NCC 2010, Jan 29-31, 2010, Chaired a session and (student) presented a contributed paper, Banerjee Adrish.
100. Meenakshi Gupta and Laxmidhar Behera, Sensor Integration of a Mobile Robot for Obstacle Avoidance, Int Conf and Exhibition on Aerospace Engineering, IISc, Bangalore, May 2009, TAROS 2009, University of Ulster UK, Behera L.
101. Laxmidhar Behera and Premkumar P., Intelligent Visual Servoing Schemes for Redundant Manipulators, Towards Autonomous Robotic Systems - TAROS 2009, University of Ulster, UK, ICON (International Conf on Natural Language Processing) 2009, Hyderabad, Behera L.
102. Pawan Goyal, Laxmidhar Behera and T. M. McGinnity, An Information Retrieval Model Based On Semantically Adapted Vector Space Model, ICON 2009, December 14-17, Hyderabad, INDIA, Behera L.
103. Chaired a session at ICICS, Macau in Dec 2009, Chaturvedi AK.

104. XVth International Workshop on the Physics of Semiconductor Devices, New Delhi, 15<sup>th</sup> to 19<sup>th</sup> December, 2009, attendee, Ghosh B.
105. 11<sup>th</sup> International Electrical Insulation Conference, Birmingham, UK, May 2009, presented 2 contributed papers, Gupta Nandini.
106. International Photovoltaic Science and Engineering Conference-18 (PVSEC-18), Calcutta, 19-23 January, 2009, Iyer S.S.K.
107. 34th IEEE Photovoltaic Specialists Conference, 2009, June 12-19, Philadelphia, USA, Iyer S.S.K.
108. 25<sup>th</sup> International Workshop on the Physics of Semiconductor Devices (IWPSD'09), 15<sup>th</sup> -19<sup>th</sup> December 2009, Delhi, India, Iyer S.S.K.
109. Workshop on Control and Inverse Problems, 1-15 Dec 2009, organized by the IISc Mathematics Initiative, Dept. of Mathematics, Indian Institute of Science, Bangalore (Invited talk), Naik Naren
110. Session Chair, Digital Circuits and Systems, IEEE TENCON Conference, Singapore, Nov. 23-26, 2009, Qureshi S.
111. Contributed paper, IEEE TENCON Conference 2009, Singapore, Nov. 23-26 2009 Qureshi S.
112. Two contributed papers, International Semiconductor Device Research Symposium (ISDRS), University of Maryland, USA, December 7-9, 2009 Qureshi S.
113. IEEE General Meeting, July 24-28, Calgary, Canada (Panelist), Singh S.N.
114. NWPC 2009, September 10-11, Bornholm, Denmark, Singh S.N.
115. 15th International Conference on Intelligent System Applications to Power Systems (ISAP07), 8-12 November, 2009, Curitiba, Brazil, Singh S.N.
116. 20th IET Irish Signals and Systems Conference ISSC 2009, University College Dublin, Ireland, 10-11 Jun. 2009, Sircar P.
117. ACM Int. Conf. on Convergence and Hybrid Information Technology ICHIT 2009, Daejeon, Korea, 27-29 Aug. 2009, Sircar P.
118. Asia Pacific Microwave Conference-2009, Singapore in Dec 2009. (Contributed paper), Srivastava K.V.
119. Taiwan-India Bilateral Workshop on Intelligent Chip Design at National Tsing Hua University, Hsinchu, Taiwan during Nov 1 to Nov 4, 2009. (Invited paper), Srivastava K.V.
120. IEEE Electric Ship Technology Symposium (ESTS 2009) during 20-22 April 2009 at Baltimore, MD USA. Chaired a session and presented a paper, Srivastava S.C.
121. International Conference on Power Systems (ICPS 2009) held at IIT Kharagpur during Dec. 27-30, 2009. Chaired a session, Srivastava S.C.
122. Self Learning Systems for Surveillance Video Analysis, Electrical Engineering Department, IISc Bangalore, 17/06/2009, Venkatesh K.S.
123. Computer Vision Applications for Automated surveillance, Metrology and Human Computer Interaction. IRDE Dehradun, 11/01/2010, Venkatesh K.S.

Industrial & Management Engineering

124. National Conference on Techno-Lingual Communication, Pranveer Singh Institute of Technology, Kanpur, December 21-22, 2009, Chief Guest, talked on 'Technolinguistics: Integrating IT, language and human communication, N K Sharma.
125. International Conference on Marketing in Emerging Markets, Rourkela Institute of Management Studies, September 6-8, 2009, Chairing Session, N K Sharma.
126. Annual Global Conference on Entrepreneurship and Technology Innovation (AGCETI), Indian Institute of Technology Kanpur, January 16-18, 2010, Chaired a session and presented a paper titled 'Role of mentoring in enhancing entrepreneurial self-efficacy: The effect of some personality traits and learning goal orientation as antecedents', N K Sharma and Manu Kanchan.
127. IIMB Management Review Doctoral Students Conference 2009, IIM Bangalore, India, 'Customers' Service Experience and Cross-Buying Intention in Banking Service Market', November 27, 2009. S K Mishra, N K Sharma.
128. IIMB Management Review Doctoral Students Conference 2009, IIM Bangalore, India, 2009, 'The impact of perceived crowding on consumers' store patronage intentions: Moderating roles of optimal stimulation level and shopping motivation', November 27, 2009, Ritu Mehta, N K Sharma, Sanjeev Swami.
129. 8th triennial conference of Association of Asia Pacific Operational Research Societies (APORS), Jaipuria Institute of Management, Jaipur, India, 'Investigating the Relationship between Financial Risk Aversion and Demographic Characteristics of Individual Investors', December 6- 9, 2009, S Pandey, N K Sharma, A K Mittal.
130. Theme presentation on 'Problem Based Learning' at Design Innovation Education Forum, Oberoi Delhi, 16<sup>th</sup> - 17<sup>th</sup> December, 2009, J Chatterjee.
131. OPPALS Workshop on Creative Research Approaches, Salzburg University, Austria, J Chatterjee.
132. Panel Discussion on Entrepreneurial Business Strategies, TIE-UP, 14<sup>th</sup> March, 2010, J Chatterjee.
133. Keynote Speaker, ICT for Socio-Economic Development, EU-Brazil Conference, 25<sup>th</sup> m- 26<sup>th</sup> March, 2010, Aracaju, Brazil, J Chatterjee.
134. CII-NID Design Summit, New Delhi, 15<sup>th</sup> -16<sup>th</sup> December, 2009, J Chatterjee.
135. Reliability in Portfolio Optimization using Uncertain Estimates, (Rachit Seth, Raghu Nandan Sengupta and Peter Winker), 6th Computational Management Science, University of Geneva, Geneva, 1st - 3rd May, 2009; Dr. RN Sengupta.

136. Visionary Leadership for Manufacturing (VLFM): Module: Leadership and Decision Making (Module Coordinator for LDM); Topic: Data Interpretation and Decision Making, 2009, Raghu Nandan Sengupta.
137. Institute for Technology and Management, Mumbai, INDIA: (i) Risk Management, May 2009 – July 2009; (iii) Quantitative Methods - I, August 2009 - October 2009, Raghu Nandan Sengupta.
138. Indira Gandhi Institute of Development Research (IGIDR), Mumbai, INDIA: EVT and Copula Theory, 26th – 27th February, 2010, Raghu Nandan Sengupta.
139. 5th National Quality Conclave, Quality Council of India New Delhi 19-20 Feb 2010; AK Mittal.
140. QCFI Bhilai Chapter Inaugural 13 Feb 2010 Bhilai Chief Guest, Invited Talk; AK Mittal.
141. National Workshop on IPR and Patenting in Health Care; March 27-28, 2010 SGPGI Lucknow Session Chair, Resource Person; AK Mittal.
142. The New ITO/ BPO Destination 10<sup>th</sup> January 2010 MCC Kanpur, Moderator Panel Discussion; AK Mittal.
143. ICQC2009, Oct 22-24, 2009 CEBU Philippines Delegation Head QCFI; AK Mittal.
144. 2<sup>nd</sup> Learning Convention VLFM 19<sup>th</sup> Feb 2010 CII New Delhi; AK Mittal.
145. Roundtable conference with USM, Industry, IITK May 5<sup>th</sup>, 2009 Penang Malaysia; IITK Representative; AK Mittal.
146. National Seminar on Current Trends in Mathematics with OR; 28-29 March 2010 RML University Faizabad Guest of Honor, Invited Lecture; AK Mittal.
147. QCFI Annual Convention Dec18-20, 2009 Bangalore Inaugural speaker; AK Mittal.
148. APORS 2009, Triennial conf of Asia Pacific Societies December 6-9, 2009; Jaipur Organizing Chair, Invited Lecture; AK Mittal.
149. Workop on Radically simple IT of Shinshei Bank 13 April 2009, Mumbai; Resource person; AK Mittal.
150. 13th annual conference of Society of Operations Management, Indian Institute of Technology, Madras, December 20-22, 2009; P Mehta.
151. Association of Asian Pacific Operational Research Societies (APORS), Jaipuria Institute of Management, Jaipur, December 06-09, 2009; P Mehta.
152. Workshop of Drug-discovery and development in India: challenges and opportunities, IIM Bangalore, Feb 5, 1010; P Mehta.

#### Materials Science and Engineering

153. Indian Science Congress Association, Awardee and speaker, Jan. 3-7<sup>th</sup> 2010, Trivandrum, Kantesh Balani.

154. Indian Ceramics Society Annual Meeting, Dec. 11<sup>th</sup> 2009, Awardee, Trivandrum, Kantesh Balani.
155. National Metallurgist's Day, Indian Institute of Metals Kolkata, contributed oral presentation and poster, Nov. 16-17<sup>th</sup> 2009, Kolkata, Kantesh Balani.
156. Advances in the Theory of Ironmaking and Steelmaking 2009 (ATIS-2009), IIS Bangalore, 9-11<sup>th</sup> December, 2009, David G. C. Robertson.
157. Constrained and unconstrained room temperature plasticity of metallic glass, ICSSP4, November 20-23, 2009, Chennai, K. Mondal and K. Hono.
158. Uniqueness of glassy structure on the crystallization behavior and its macroplasticity, Discussion Meeting at Coorg Feb. 21-24<sup>th</sup> 2010, K. Mondal.
159. Thermodynamics and kinetics of crystallization from undercooled liquid, 2010-Indo American Frontiers of Engineering (IAFOE) Symposium, March 11-13, Agra, K. Mondal.
160. Seminar on Management of Energy Resources - Issues and Challenges, Indian school of Mines University, Dhanbad, January 31-February 1, 2009, S.P. Mehrotra.
161. R&D for Indian iron and steel industry: Future directions, DAAD Alumni Club Symposium - ASM 2009, Puri (Orissa), March 22, 2009, S.P. Mehrotra.
162. Brainstorming on Programme on Marine Resource development and Management, IIT Kharagpur, April 14, 2009, S.P. Mehrotra.
163. International Conference Mineral Processing Technology (MPT-2009), Institute of Minerals and Materials Technology, Bhubaneswar, October 28-30, 2009, S.P. Mehrotra.
164. 4<sup>th</sup> Asian Particle Technology (APT-2009), held in New Delhi during September 14-16, 2009, S.P. Mehrotra..
165. International Conference on Advances in Electron Microscopy and Related Techniques and XXXI Annual Meeting of EMSI, BARC, Mumbai, India, March 8-10, 2010, Gouthama.
166. Structural, Magnetic and Electrical Properties of Zr-Doped BiFeO<sub>3</sub> Thin Films, Poster Presentation at MRS Fall Meeting 2009, Boston (USA), Somdutta Mukherjee, Rajeev Gupta, Ashish Garg.
167. Synthesis and Experimental Investigations on Single Crystal Gallium Ferrite, Poster Presentation at MRS Fall Meeting 2009, Boston (USA), Somdutta Mukherjee, Rajeev Gupta, Ashish Garg.
168. Mineral Characterization Using Micro X-ray Diffraction (Micro XRD), a State-of-the-art Non-destructive Technique, Presented at the Chemeca 2009, Perth (Australia), 27-30 September 2009, Oral Presentation number 120.A.122, Muthu Panniselvam, Ashish Garg, James Tardio, Stephen Grocott and Suresh Bhargava.
169. Characterization of Bauxite Pisoliths, Presented at the Chemeca 2009, Perth (Australia), 27-30 September 2009, Oral Presentation number 532.A.121, Muthu

Panniselvam, James Tardio, Ashish Garg, Frank Antolasic, Stephen Grocott and Suresh Bhargava.

## Mechanical

170. Health Monitoring of Pipes using Conduit Crawling Robot, International Symposium on Research Collaboration, Waseda University, Fukuoka, Japan, 08.03.2010, Bishakh Bhattacharya.
171. Attended Conference Turbulence and Shear Flow Phenomena, 22-24 June 2009, Seoul National University, Seoul, South Korea Venue, and presented two contributed papers, Subrata Sarkar.
172. Recent Advances in Nonlinear Mechanics, Kuala Lumpur, Malaysia, August 24-27, 2009, chairing session as well as presenting contributed papers, Pankaj Wahi.
173. Pankaj Wahi , Workshop on Thermoacoustic Instabilities, IIT-Chennai, India, January 18-22, 2010, as an expert on nonlinearity.
174. NPMASS workshop on MEMS Technology and its applications, Cummins college of Engineering, Pune, 22-24th January, 2009, S. Bhattacharya.
175. Indo-Japan Workshop, Symbiosis International University, Senapati Bapat Road- Pune, March 8-15, 2009, S. Bhattacharya.
176. Experimental and Numerical Analysis of Double Sided Incremental Forming, International Manufacturing Science and Engineering Conference MSEC - 2009, October 4-7, 2009, Indiana, USA, N V Reddy, J Cao, Y. Wang, W Wu, Y Huang.
177. Seminar in DST Nanosciences meet, Vedic village, Kolkata, 15-17th March, 2009, S. Bhattacharya.
178. BARC school on micromachining and sensing technologies, IIT Mumbai, 2-7th June, 2009, S. Bhattacharya.
179. CMERI, Durgapur, 15-16th July, 2009, S. Bhattacharya.
180. CEP on Smart Polymers for Electronic and Smart Application from 30th November - 4th December, 2009 at DMSRDE, G.T. Road, Kanpur - 208013, S. Bhattacharya.
181. MGM college of Engineering at Nanded at their annualevent VISIOTECH-2010, 20-22nd February, 2009, S. Bhattacharya.
182. Department of Chemical Engineering and technology, Punjab Engineering College, Punjab University, Chandigarh, 3-4th April, 2010 S. Bhattacharya.
183. REI 15, Padova, Italy, Aug. 30 Sept. 4 2009, Companion registration, S. Bhattacharya.
184. The 5<sup>th</sup> India-Japan Joint Seminar on Production, measurement, QC& Micro/Nano Manufacturing, Tokyo, Japan, March 15-19, 2010, presented a paper and chaired a session, N.V. Reddy.



185. 9th International ASME-ISHMT Heat and Mass Transfer Conference, Mumbai, India January 4-6, 2010, S. Khandekar.
186. Theme Meeting on Thermal Hydraulics of Nuclear Reactors - 2010, IGCAR Kalpakkam, India, February 18-19, 2010, S. Khandekar.
187. International Heat Pipe Committee Meeting, Noordwijk, The Netherlands, October 2009, S. Khandekar.
188. Fifth International Conference on Evolutionary Multi-Criterion Optimization (EMO-09), Nantes, France, April 2009. Contributed papers, chairing sessions, K. Deb.
189. Congress on Evolutionary Computation (CEC-09), Trondheim, Norway, May 2009. Tutorial speaker, contributed papers, K. Deb.
190. Multi-Criterion Decision Making (MCDM), Chengdu, China, July 2009, Keynote speaker, tutorial speaker, contributed papers, K. Deb.
191. CSIRO Workshop on Multi-Criterion Optimization, New Castle, Australia (September 2009), invited workshop speaker, K. Deb.

#### Humanities and Social Sciences

192. Chaired technical session -I in One Day Orientation Programme for Chairpersons and Heads of Institutions on Introduction of Value Education Inputs by UPTU, Raj Kumar Goel Institute of Technology, Ghaziabad, 17 May 2009 - A.K. Sharma.
193. Stigma against HIV/AIDS: A Need for Contextual Understanding. Paper presented at International Conference on Health for All: Opportunity and Challenges, India International Institute of Social Sciences (IISS), Jaipur, 21-23 September 2009 -Sonal Mobar and A.K. Sharma.
194. Social Legislation and Social Change. Paper presented at Rashtriya Vichar Gosthi on Samajik Vidhayan tatha Samajik Parivartan, A.N.D. Mahila Degree College, Kanpur, 24 October 2009 - A.K. Sharma.
195. Indian Society in 21<sup>st</sup> Century, Paper presented at International Seminar on Imagining India: Discourse of the Nation, Department of English, Banaras Hindu University, 18-19 December, 2009 - A.K. Sharma.
196. A Pilot Study of Factors Determining Maternal Health and Morbidity in Slums: An Exploratory Study of Kanpur City, Paper presented at Seventh Conference of Indian Association for Social Sciences and Health, BHU, Varanasi, 5-7 March, 2010 -Rita Singh, A.K. Sharma and Rohini Ghosh.
197. Planning for Social Development among the Tribal Communities: Understanding Social Representations of Health, Paper presented at Seventh Conference of Indian Association for Social Sciences and Health, BHU, Varanasi, 5-7 March, 2010 - A.K. Sharma and Shikha Dixit.
198. Durkheim's sociological approach to moral education. Paper presented at National conference on Education, State and Globalisation: Issues and

- challenges, Department of Sociology, Central University of Hyderabad, 5-6 March, 2010 - Amman Madan.
199. Rebuilding political education: Reflections from a case study in Central India. Paper presented at conference on Towards a Better Politics, Osmania University, 29 January 2010 - Amman Madan.
  200. Three models of merit: Some contrasting implications for pedagogy and social stratification. Paper presented at International seminar on Affirmative Action and Inequality in Education, 9-10 November, Centre for Political Studies, JNU - Amman Madan.
  201. Member of discussion panel, Linking universities and schools: towards equity and quality, 30-31 October 2009, University School Resource Network, JNU - Amman Madan.
  202. Two Versions of Oedipus in Philip Roth's The Human Stain. Paper presented at the Jewish- American and Holocaust Conference, Salt Lake City, Utah, USA, 12-16 September 2009 - G. Neelakantan.
  203. Experiencing Our True and Transcendental Self: Participatory Qualitative Research as a Potential Medium. Paper presented at a symposium on Perspectives on Indian Psychology at the 8th Biennial Conference of the Asian Association of Social Psychology, New Delhi, 11-14 December, 2009, Kumar Ravi Priya.
  204. Social construction of human-environment relationship facilitating disaster management and healing: Insights from natural disasters in India. Paper presented at the 8th Biennial Conference of the Asian Association of Social Psychology. New Delhi, 11-14 December, 2009, Kumar Ravi Priya.
  205. Strengths and Challenges of Using Ethnography in Studying Trauma Reactions and Healing after a Human-Made Disaster: Insights from a Study on Communal Riots in 2002 in Gujarat, India. Paper presented at the 10th International Interdisciplinary Conference - Advances in Qualitative Methods (AQM), Vancouver, British Columbia, Canada, 7-10 October, 2009. - Kumar Ravi Priya.
  206. Contextualizing trauma and healing of children affected by human-made disasters: Theoretical, methodological and policy implications. Paper presented at the National Seminar on 'Human Emotions and Well-Being: Emerging Perspectives, D. D. U. Gorakhpur University, March 21-22, 2010. - Kumar Ravi Priya.
  207. Theoretical, methodological and policy implications. Paper presented at the National Seminar on 'Human Emotions and Well-Being: Emerging Perspectives, D. D. U. Gorakhpur University, March 21-22, 2010. - Kumar Ravi Priya.
  208. Posttraumatic Stress, Suffering and Healing among Riot-Affected Internally Displaced Children of Gujarat: A Qualitative Inquiry. Paper presented at the

- 18<sup>th</sup> Annual Conference of National Academy of Psychology.t Bangalore University, Bengaluru, 6-9 March, 2010. - Kumar Ravi Priya.
209. Participant and Session Chair. Conference of the Irish Anthropological Association, Anthropological Crossings: Memory, Identity and Belonging in an Interconnected World, Queen's University, Belfast, UK, 1-2 May 2009. - Munmun Jha.
210. Participant in the Travel and Trauma Colloquium, Institute of Irish Studies, Queen's University, Belfast, UK, 17-18 April 2009. - Munmun Jha.
211. The Recognition of the Fisherman: Literary Representations of the Unnamed. Paper presented at 12<sup>th</sup> International Conference of Forum on Contemporary Theory in The Political Economy of Social Division: Race, Gender, Class and Caste as Fetishized/Fetishizing Borders, Trivandrum, December 2009 - Mini Chandran.
212. Attended National Seminar on Mind and Meaning, organized by the Department of Philosophy in collaboration with the Department of Neural and Cognitive Sciences, University of Hyderabad, March, 2010 - Mini Chandran.
213. Understanding coping pattern of Myocardial infarction patients: A Qualitative investigation. Paper presented at the Eighth biennial conference of the Asian Association of Social psychology, IIT Delhi, New Delhi, 11-14 December, 2009. - Rajbala Singh and Shikha Dixit.
214. Mental illness: Cultural context and clinical intervention. Paper presented at the Thirty sixth National Annual Conference of the Indian Association of clinical psychologists, Department of Mental health and social psychology, National Institute of Mental Health and Neurosciences, Bangalore, 1-3 February, 2010. - Shikha Dixit.
215. Social position and health: A health psychology perspective. Seventh Conference of the Indian association for social sciences and health. Centre for study of social exclusion and inclusive policy, Faculty of social sciences, Banaras Hindu University, Varanasi, 5-7 March, 2010 - Shikha Dixit.
216. Planning for social development among the tribal communities: Understanding social representations of health Seventh Conference of the Indian association for social sciences and health. Centre for study of social exclusion and inclusive policy, Faculty of social sciences, Banaras Hindu University, Varanasi, March 5-7, 2010, Contributed paper -A.K.Sharma, Shikha Dixit and Rajbala Singh.
217. Chronic illness and coping: Implications for positive intervention. Invited Paper at the National Seminar on Positive Psychology and Health: Interventions and Strategies, Department of Psychology, M.D. University, Rohtak (Haryana), 28-29 March, 2010, Shikha Dixit.
218. Participated in 5<sup>th</sup> Annual Conference on Economic Growth and Development, organized by Indian Statistical Institute at Delhi. - Sohini Sahu.

219. Invited participant in the Transforming Science from Feminist Perspective Workshop organized by IAWS in association with RCWS, SNDT, Mumbai, 15-17 Feb., 2010, Suchitra Mathur.
220. Invited participant in the Communication Skills Initiative workshop organized by IIT Gandhinagar, 20-21 Feb., 2010. - Suchitra Mathur.
221. Fairness perception in India: The role of rule combination and other situational variables, Paper presented at the 8<sup>th</sup> Biennial Conference of the Asian Association of Social Psychology, New Delhi 14-16 December 2009. - Lilavati Krishnan.
222. Science Technology and Social Inequality in India: A Socio-historical Perspective Paper presented at Annual Conference of the (4S) Society for the Social Studies of Science, (the global professional body of S&T policy researchers) at Virginia Tech Arlington, Washington DC, USA 27 Oct - 1 Nov, 2009. - Binay K Pattnaik.
223. Indigenous vision and Sustainable Development, Paper presented at the 16<sup>th</sup> World Congress of the International Union of Anthropological and Ethnological Sciences (IUAES), ( Panel: Indigenous Knowledge for Ecological Resource Management University of Yunan Kunming, China , 27-31 July, 2009 - with full financial Support from IUAES. - Binay K Pattnaik.
224. Chaired the technical session entitled: Traditional Forest related knowledge and Forest Resource Conservation, and was Discussant to the technical session: Shifting Cultivation and agricultural Production Management - Binay K Pattnaik.
225. Interdisciplinary Mathematical and Statistical Techniques. Paper presented at 18<sup>th</sup> International Conference of 'Forum for Interdisciplinary Mathematics' 2-4 August, 2009, Jaypee University of Information Technology, Wagnaghat, Dist. Solan, Himachal Pradesh, India. - Praveen Kulshreshtha.
226. Presented a paper 'Rasa Aesthetics and Interpretation' in the national conference organized by the Balvant Parekh Centre for General Semantics and the Other Human Sciences, Baroda in November, 2009. - Prashant Bagad.
227. Mixing of the mythical and the hyperreal in cyberhell: Fixing the Topology of Cybermancy in the MELOW International Conference on Literature and Culture since 1980, Panjab University, Chandigarh, 25-27 February, 2010. Presented an invited paper. - T. Ravichandran.

## Chemistry

228. Indo-French Meeting on Diffusion in nanoporous materials, held at Fortune Select JP Cosmos, Bangalore, April 2-5, 2009, A. Chandra.
229. National Conference of Shanti Swarup Bhatnagar Award Winners, held at Devi Ahilya Vishwavidyalaya, Indore, July 17-19, 2009, A. Chandra.

230. International Conference on Solution Chemistry, University of Innsbruck, Austria, August 20-25, 2009, A. Chandra.
231. Discussion Meeting on Chemical Reactions in Unusual Media, National Chemical Laboratory, Pune. October 8-9, 2009, A. Chandra.
232. 5. Supercomputing-09 and ATIP 1<sup>st</sup> Workshop on HPC in India 2009, held in Portland, USA, November 14-20, 2009, A. Chandra.
233. School and Conference on Multiscale Modeling and Simulations of Hard and Soft Materials, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, December 7-20, 2009, A. Chandra.
234. Of Molecules and Materials: A Survey of Recent Concepts, IISER Kolkata, December 27-29, 2009, A. Chandra.
235. Delivered an invited talk in the 4<sup>th</sup> Mid Year national symposium of the Chemical Research Society of India (CRSI) at SGSITS, Indore, India (July 23-24, 2009) Title: Aziridines and Azetidines: Synthetic and Mechanistic Aspects, M.K. Ghorai.
236. Probing the ultrafast solution dynamics of a cyanine dye in DCM solvent interfaced with water medium, Femtochemistry'09, Beijing, China, Aug.8-13, 2009, Poster presentation. T. Goswami, S.K. Karthick Kumar and Debabrata Goswami.
237. Femtosecond pulse induced nonlinearity and Thermal Relaxation Dynamics, Femtochemistry'09, Beijing, China, Aug. 8-13, 2009, Poster presentation, I. Bhattacharyya and Debabrata Goswami.
238. International Scientific Committee Member: Asian Quantum Information Quantum Computing-2009 (AQIS'09), Nanjing, China, Aug. 21-27, 2009, Debabrata Goswami.
239. Simultaneous effect of polarization and chirp on the control of femtosecond molecular fragmentation, Tapas Goswami, S. Karthick Kumar, Aveek Dutta and Debabrata Goswami, 6<sup>th</sup> Asian Conference on Ultrafast Phenomena ACUP-2010, Taipei, Taiwan, Jan 10-13, 2010, Poster Presentation.
240. National Laser Symposium 2009 (NLS-09), 9<sup>th</sup> DAE-BRNS National Laser Symposium, BARC, India, January 13-16, 2010, Panorama of Femtosecond Control across Various Phases, Invited Talk, Friday, Jan. 15, 2010, Debabrata Goswami.
241. Effect of polarization on molecular fragmentation of n-propyl benzene, Poster Presentation, Dipak Kumar Das, Tapas Goswami, S. K. Karthick Kumar, Debabrata Goswami.
242. Spatiotemporal Control in Laser-Scanning Fluorescence Microscopy and Optical Trapping, Oral Presentation, Jan. 15, 2010 Arijit Kumar De and Debabrata Goswami.
243. Spectrally Resolved Femtosecond Photon Echo Spectroscopy of Astaxanthin, at Spectroscopy and Dynamics of Molecules and Clusters (SDMC) Discussion

- Meeting '10, The International Center, Goa, February 18-21 (2010), Ajitesh Kumar, S.K. Karthick Kumar, T. Goswami, D. Goswami.
244. Ultrafast dynamics of femtosecond laser driven Retro-Deals-Alder Reaction of Dicyclopentadiene, Spectroscopy and Dynamics of Molecules and Clusters (SDMC) Discussion Meeting '10, The International Center, Goa, February 18-21 (2010), Dipak Kumar Das, Tapas goswami, Debabrata Goswami.
245. Revealing H-bond characteristics through Thermal-Lens Spectroscopy, Spectroscopy and Dynamics of Molecules and Clusters (SDMC) Discussion Meeting '10, The International Center, Goa, February 18-21 (2010), Pardeep Kumar, Indrajit Bhattacharyya, Debabrata Goswami.
246. NOST-OCC Conference 2009, Majorda Beach Resort Goa, Dates May 1-4 2009, presenting invited paper - Modelling the green fluorescence protein luminophore, R. Gurunath.
247. National conference on Nanotechnology organized by Bharatiyar University, Feb 2-4th 2010, Plenary lecture on Ultrathin film magnetism, S. Sundar Manoharan.
248. Invited lecture at Sri Krishnammal College for women, Coimbatore, Feb 4th 2010, on Rare Earth mangatites-Spintronics, S. Sundar Manoharan.
249. Sterically-Engineered Rigid Molecular Modules for Lattice Inclusion Cornucopia and Organic Functional Materials, NOST (National Organic Symposium Trust), Goa, May 04-09, 2009, J.N. Moorthy.
250. Exploitation of Sterics in Organic Solid State Reactivity and Molecular Organization International Symposium on Organic Chemistry: Trends in 21<sup>st</sup> Century, Kolkota, Dec 10-12, 2009, J.N. Moorthy.
251. Control of Organic Reactivity and Solid State Properties Based on Structural Attributes, Chemical Research Society of India, NSC-12 CRSI symposium, IICT, Hyderabad, Feb 6-10, 2010, J.N. Moorthy.
252. Chemical Research Society of India, Indian Institute of Chemical Technology, Hyderabad (February 5-7, 2010), R.N. Mukherjee.
253. Modern Trends in Inorganic Chemistry, Indian Institute of Science, Bangalore (December 7-10, 2009), R.N. Mukherjee.
254. 2<sup>nd</sup> CDRI-NIPER (RBL) Symposium on Medicinal Chemistry & Pharmaceutical Sciences, CDRI, Lucknow, March, Nisanth N. Nair.
255. RAMET, Kolkata, January 2010, Invited Talk, Nisanth N. Nair
256. ICMR-ICMS Winter School on Chemistry and Physics of Materials, JNCASR, December 2009, Nisanth N. Nair.
257. School on Multiscale modeling and simulation in Hard and Soft Materials. , JNCASR, December 2009, Nisanth N. Nair.
258. Modulation of Iron Displacements and Axial Ligand Orientations in a Nonplanar Porphyrinic Environment 2<sup>nd</sup> Asian Conference on Coordination Chemistry (ACCC), Nanjing, China from Nov. 1-4, 2009, S.P. Rath, (Presenting invited talk), S.P. Rath.

259. Metal Ion Displacements and Axial Ligand Orientations in a Nonplanar Porphyrinic Environment School and Symposium on Advanced Biological Inorganic Chemistry (SaBIC-2009) held at TIFR, Mumbai from Nov. 2-7, 2009, S.P. Rath (Presenting invited talk)
260. Title: Bioinspired Design of Porphyrin and Bisporphyrin based Metal Complex
261. National Symposium on Modern Trends in Inorganic Chemistry (MTIC-XIII) held at IISc Bangalore from Dec. 7-10, 2009, S.P. Rath, (Presenting invited talk)
262. Invited talk, Bangladesh Chemical Congress: Functional Models of Nitrate Reductase with Substrate Specificity Dhaka University, Dhaka, 30 January, 2009, S. Sarkar.
263. Invited talk, Bangladesh Humboldt Kolleg on 'Environmental Challenges in the New Millennium, Dhaka, 2<sup>nd</sup> February, 2009, S. Sarkar.
264. Invited talk, Gordon Research Conference, Molybdenum & Tungsten Enzymes, held at Berga, Italy, 5<sup>th</sup> -10<sup>th</sup> July, 2009, S. Sarkar.
265. Invited talk, the department of chemistry, University of Jena, July 3<sup>rd</sup> Germany, 2009, S. Sarkar
266. Invited talk the department of chemistry, University of Paderborn, 21<sup>st</sup> July,, Germany, 2009, S. Sarkar
267. Invited talk , the department of chemistry and biochemistry ,University of Duquesne, PA, USA, 8<sup>th</sup> March , 2010, S. Sarkar
268. Invited talk in Inorganic Chemistry Colloquium at Boston, department of chemistry and chemical biology, Harvard University, USA, February 27, 2010 S. Sarkar
269. Int. Sym. on Ostwald's 100 Years of Cata. in Chem. Res. Allahabad Agricultural Institute - Deemed University, Allahabad, India, November 2009, Pratik Sen.
270. International Congress of Chemistry and Environment (ICCE - 2009), Ubon Ratchathani, Thailand, January 2010, Oral presentation, Pratik Sen.
271. Total Synthesis of Bioactive Natural Products 14th International Conference Indian Society of Chemists and Biologists at Central Drug Research Institute, Lucknow, January 15 - 18, 2010, V.K. Singh.
272. Enantioselective Reactions Catalyzed by Chiral Pyridine 2,6-Bis(5',5'-diphenyloxazoline)-Cu(II) Complexes Invited talk in International Conference on Heterocyclic Chemistry at St. Johns, Newfoundland, Canada on 3<sup>rd</sup> August, 2009, V.K. Singh.
273. Enantioselective organocatalytic Aldol Reaction 2<sup>nd</sup> German-India Symposium Frontiers of Chemistry at Institut für Organische Chemie, Universität Leipzig, Leipzig, Germany, 16-19 Sept, 2009, V.K. Singh.
274. DST's Composite delegation to workout cooperation strategy and identify few themes of mutual interest, Moscow, 14-16 September, 2009, V.K. Singh.

275. Collaborative Opportunities at Indian Institute of Science Education and Research (IISER) Bhopal, India Indo-German Workshop on Collaboration Opportunities at the Frontiers of Modern Chemistry. Cologne 21, September 2009, V.K. Singh.
276. Symposium on symmetry, IISER, Mohali, K. Srihari.
277. Spectroscopy and Dynamics of Molecules and Clusters VII, Goa, K. Srihari.
278. Second German-Indian symposium on frontiers of chemistry, Leipzig, Germany, Conference on Tunneling and scattering in complex systems - from single to many particle physics, Dresden, Germany, K. Srihari.
279. A lecture entitled new Dimensions in Chemical Sciences was delivered in a one-day symposium held at P.G. College, Osmania University on January 30, 2010, Y. D. Vankar.

#### Mathematics and Statistics

280. Mathematical Models of Collective Dynamics in Biology and Evolution (MDBE 09), University of Leicester, U.K., 11-13 May, 2009, contributed paper presentation entitled "Spatial pattern formation in ratio-dependent model: moment-based analysis, Malay Banerjee.
281. International Conference on Rough sets, Fuzzy sets and Soft Computing, Agartala, Tripura, November 5-7, 2009; (i) Tutorial on "Rough Set Theory", (ii) Invited talk on "Propositional logics from rough set theory", Mohua Banerjee.
282. 12<sup>th</sup> International Conference on Rough Sets, Fuzzy Sets, Data Mining & Granular Computing (RSFDGrC 2009), December 16-18, 2009, Delhi; (i) Chaired session on "Fuzzy Set Foundations and Applications"; (ii) Presented contributed paper co-authored with Md. Aquil Khan on Algebraic semantics for the logic of multiple-source approximation systems, Mohua Banerjee.
283. 75<sup>th</sup> Annual Conference of Indian Mathematical Society, Kalasalingam, Dec. 26-30, 2009, Delivered Presidential addresses (i) General Address; Mathematics Education in India: Some observations and concerns. (ii) Technical Address: Mathematical Modeling of HIV Dynamics: in vivo; also chaired a session P. Chandra.
284. 2<sup>nd</sup> National Symposium on Modern trends in Differential Geometry and Mathematical Modeling in Biosciences, Lucknow University, Jan. 9-10, 2010, Invited talk 'Modeling the Dynamics of HIV Primary Infection'. Also chaired a session, P. Chandra.
285. International Conference on Mathematical Modeling and Non-linear Equations, BNMIT, Bangalore, Jan. 20-23, 2010, Delivered invited talk 'Mathematical Models for HIV infection in vivo- A Review', P. Chandra.
286. Invited talk at a mini symposium on Least squares methods at ICOSAHOM at Norwegian University of Science and Technology, Trier from 20-27 June, P. Dutt.



287. RMS annual conference Saturation by structural subspaces in Banach Spaces, S. Dutta.
288. Participated in Eighth Mississippi-UAB conference on Differential Equations & Computational Simulations, May 7-9, 2009 at Mississippi State University, USA. Presented an invited paper entitled "A high order parameter uniform scheme for solving singularly perturbed parabolic problems with small parameters" at the conference, M.K. Kadalbajoo.
289. Presented the Research paper 'Hermite Coalescence Fractal Interpolation Function' International Conference on Scientific Computing, Las Vegas, USA, July 13-16, 2009, G.P. Kapoor.
290. Chaired Two Technical Sessions at the above conference, G.P. Kapoor.
291. Bivariate Generalized Exponential Distribution, Presented at CMI, Pala Nov., 2009, D. Kundu.
292. Canadian Abstract Harmonic Analysis Symposium 2009 (Laufest), Edmonton, Canada, May 11-15, 2009, Contributed Paper title: Relation between bilinear 1multipliers on classical group, P. Mohanty.
293. 11<sup>th</sup> discussion meeting on Harmonic Analysis, NISER Bhubaneshwar, January 2010, P. Mohanty.
294. Delivered an invited talk on a review of Sobolev spaces and glimpses of Partial Differential Equations at symposium at the annual conference of IMS. The 75<sup>th</sup> annual conference (Platinum Jubilee Conference) of the Indian Mathematical Society (IMS) held at the The Kalasalingam University, Anand Nagar, Krishnankoil-626190, Dist. Virudunagar, Tamil Nadu, during Dec. 27-30, V. Raghavendra.
295. Delivered an invited talk on Degenerate nonlinear Elliptic Problem. Recent Advances in Mathematical Sciences and Applications (RAMSA)-An International Conference, held at GVP College of Engg. Madhurawada, Visakhapatnam, 530048, A.P. India, V. Raghavendra.
296. Free Convection in a Non-Newtonian Fluid Saturated Square porous Enclosure with an Isothermal Carrugated Wall. First International Computational Methods for Thermal September 8-10, 2009, Naples, Italy, S.V.S.S.N.V.G.K. Murthy, B.V. Rathish Kumar.
297. Darcy Mixed Convection in a Fluid Saturated Square Porous Enclosure Under Multiple Suction Effect. First International Conference on Computational Methods for Thermal Problems September 8-10, 2009, Naples, Italy, B.V. Rathish Kumar, S.V.S.S.N.V.G.K. Murthy.
298. A Keller Box Finite Difference Scheme for Double Diffusive Free Convection from a Corrugated Left Vertical Surface to Darcy Porous Medium with Dufour Effects. Indo-German Conference on PDE, Scientific Computing and Optimization in Application, October 7-9, 2009, Indian Institute of Technology, Kanpur, S.V.S.S.N.V.G.K. Murthy, B.V.Rathish Kumar, P. Chandra, V. Sangwan, M. Nigam.

299. A Review on LS-SEM for Stokes Equations, in 11<sup>th</sup> Int. Conf. of the Int. Academy of Physical Sciences, Feb. 20-22, 2010, Univ. Allahabad, Allahabad, S. Mahapatra, A. Pandey, B.V, Rathish Kumar, P. Dutt.
300. An Overview of High Performance Computing in Cardio-Vascular Modelling & Simulation. Int. Conf. on Recent Trends in Mathematical Sciences and Applications at GVP College of Engineering, 19-22, Dec. 2009, Vizag, AP. B.V. Rathish Kumar.
301. Computational Studies on turbulence in ADDS, in Int. Conf. Mathematical Modelling and nonlinear Equations, Jan. 20-22, 2010, BNMIT, Bangalore, B.V.Rathish Kumar, A. Prakash, G. Biswas.
302. Error estimates for Three-Step TGFEM for transient SPCDE, Indo-German Conference on PDE, Sci. Computing and Optimization in Applications, Oct. 7-9, 2009, IIT Kanpur, V.Sangwan, B.V. Rathish Kumar, S.K. Murthy, M. Nigam.
303. Computational Cardio-Vascular Dynamics - I & II, in National Workshop on Mathematical Models for Biofluid Flows and Applications, 22-26, Jan. 2010 at SV University, Tirupathi, AP, India , B.V. Rathish Kumar.
304. Glimpses of Mathematics at the frontiers of Science and Technology, in National Meet for Research Scholars in Mathematical Sciences, Dec. 19-23, 2009, IIT Roorkee, B.V. Rathish Kumar.
305. A look at the Spectral Element Methods in Fluid Flow Analysis, IMS 2009, Dec 27-30, 2009 at KL Univ., Maduria, Tamilnadu, B.V. Rathish Kumar, S. Mahapatra, P. Dutt.
306. Introduction to Spectral Methods, IMS 2009, Dec. 27-30, 2009 at KL Univ. Maduria, Tamilnadu. P.Dutt, B.V. Rathish Kumar.
307. 11<sup>th</sup> discussion meeting in Harmonic Analysis, NISER Bhubaneswar, Speaker, S.K. Ray.
308. Attended an Instructional and International conference on Number Theory, PDE and Geometry held at Department of Mathematics, University of Calicut during August 24-29, 2009. I presented a paper on "Obata's theorem for Kahler Manifolds, G. Santhanam.
309. APORS 2009, Jaipuria Institute of Technology, Jaipur, 6th to 9<sup>th</sup> Dec. 2009, Invited talk and chaired three sessions, P. Sharma.
310. Frontiers of Interface between Statistics and Sciences, University of Hyderabad, 30<sup>th</sup> Jan. 2010, P. Sharma.
311. 64<sup>th</sup> Dec. 2009 to 2<sup>nd</sup> Annual meeting of the stle, ORLANDO, FL, USA May 17-212009, Numerical Simulation of Thermal and Roughness effects on the Performance of Finite Tilted Pad Slider Bearing, P. Sinha, A. Getachew.
312. 64<sup>th</sup> Annual meeting of the stle, ORLANDO, FL, USA May 17-212009, A Simple Numerical Method for the Solution of Thermal Elastohydrodynamic Lubrication Problem of Infinite Line Contacts, P. Sinha, H. Khan.
313. Gave a Plenary Talk "Estimation of Entropy and Its Applications" in Eighteenth International Conference of Forum for Interdisciplinary

Mathematics on Interdisciplinary Mathematical and Statistical Techniques, Jaypee University of Information Technology, Wakanghat (HP), August 2-4, 2009, N. Misra.

## Physics

314. ICTS Condensed Matter Programme 2009, organized by ICTS, TIFR, Mahabaleswar, 5<sup>th</sup>-23<sup>rd</sup> December, 2009. Invited speaker and session chair, A. Dutta.
315. Summer college on Non-equilibrium physics from to quantum low-dimensional systems, 6<sup>th</sup>-24<sup>th</sup> July, at Abdus Salam ICTP, Trieste, Italy, A. Dutta.
316. Invited participant, International Colloquium on Perspectives in Fundamental Research, Tata Institute of Fundamental Research, Mumbai, March 3-6, 2010, D. Chowdhury.
317. Indo-Feench Workshop cum International Conference on Nano-science and Nano- Technology, Ansal Institute of Technology, Gurgaon, 12-16 Oct, 2009 (Invited Speaker), S. Dhamodaran.
318. Invited Speaker, Theme Meeting on Quantum Structures, BARC, Mumbai, 2-3, Nov 2009 (Invited Speaker & Panel Discussion), S. Dhamodaran.
319. Seminar cum workshop on First-principles Methods, Himachal Pradesh University, Simla, March 22-29, 2010, Invited Talks, R. Prasad.
320. ICOP 2009 International Conference on Optics and Photonics CSIO, Chandigarh, India, 30 Oct.1 Nov. 2009 Invited Lecture entitled Controlling metamaterial properties via imbedded resonant materials, S. Anantha Ramakrishna
321. 9<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity, M<sup>2</sup>S-IX, Tokyo 2009, 7<sup>th</sup> September to 12<sup>th</sup> September, 2009 in Keio Plaza Hotel, Tokyo Japan. Presented contributed paper, S. Banerjee
322. International conference Of Meleculed and Materials, held at IISER, Kolkata December 26-December 29, 2010 as an Invited Speaker and gave a talk on Time-independent excited-state density-functional theory. M.K. Harbola.
323. MRS Fall Meeting, Boston, November 30-December 4, 2009 presented three contributed papers. Rajeev Gupta.
324. Invited participant, Frontiers in Quantum Science, The Institute of Mathematical Sciences, Chennai, 21-22 Dec, 2009, A. Dutta
325. 12. Invited participant, Frontiers in Quantum Science, The Institute of Mathematical Sciences, Chennai, 21-22 Dec, 2009, V. Ravishankar.

## SEMINAR PRESENTED

### Aerospace

1. Computational Aeroelasticity: Prediction of Loads and Response of a Helicopter Rotor System in Forward Flight Invited Talk, Indo-German Conference on Partial Differential Equations, Scientific Computing and Optimization in Applications, IIT-Kanpur, Kanpur, Oct. 2009, Venkatesan. C.
2. Flight Dynamics of parachute ADRDE Agra, January 2010, A. K. Ghosh.
3. Combustion Dynamics in a Low Aspect Ratio Dump Combustor, International Workshop on Advances in Combustion and Transportation, Energy Conclave 2010, IIT Kanpur, Jan. 10-12, 2010, A. Kushari.
4. Numerical Studies of Trapped Vortex Combustor, Department of Mechanical Engineering, IRT, Bhubaneswar, 2010, D. P. Mishra.

### Biological Science and Bio-engineering

5. Invited speaker at the Young Investigator Meeting, Cambridge, 11<sup>th</sup>-13<sup>th</sup> Sep 2009, Pradip Sinha.
6. Yin and Yang of Skeletal Development: Gene Hunting and Genetics Central Drug Research Institute, Lucknow - 3<sup>rd</sup> September, 2009, Amitabha Bandyopadhyay
7. Developmental Metabolomics and Organogenesis: An expression screening approach Lady Brabourne College, Kolkata - 5<sup>th</sup> February, 2010, Amitabha Bandyopadhyay
8. Invited talk: Molecular modeling and simulations to understand the structure-function relationship of proteins: Aquaporins and Bcl-2 proteins. Chiang Mai University, Thailand, 8/Dec/2009, R. Sankararamakrishnan.
9. Invited talk: Methods to predict protein structures: An overview. In the Workshop on Bioinformatics: Research & Applications organized by the Department of Biochemistry, University of Lucknow, 18/Feb/2010, R. Sankararamakrishnan.
10. Molecular Basis of Locus Heterogeneity in Lafora Progressive Myoclonus Epilepsy: Invited talk delivered in the International Conference on the Role of Genetics in Clinical Practice, organized by the Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow (March 6 to 8, 2010), Ganesh S.
11. Impact of alternative mRNA splicing in the etiology of Lafora progressive myoclonus epilepsy: Invited talk delivered in the International Conference on Genetic and Molecular Diagnosis in Modern Medicine and Biology, organized by the Yenepoya University, Mangalore (February 27, to March 2, 2010), Ganesh S.

12. Defects in proteolytic pathways underlie neuropathology in Lafora disease: Invited talk delivered in the NeuroUpdate 2010, organized jointly by the Calcutta National Medical College and the Indian Institute of Chemical Biology, Kolkata, February 14, 2010, Ganesh S.
13. Genetic diagnosis in monogenic disorders: promises, challenges and pitfalls: Invited talk delivered in the International Symposium on Molecular Pathology and Applied Genomics, organized by SRL, Global Knowledge Forum, Super Religare Laboratories Limited, Mumbai (November 6 and 7, 2009), Ganesh S.
14. Discovery of Novel Modulators of Neurotoxicity as Potential Therapeutic Interventions in Neurodegenerative Disorders: Invited talk delivered in the Translational Health Research: Pathways to Discovery, organized by the King George Medical University, Lucknow, (April 28-29, 2009) , Ganesh S.
15. Invited speaker, National Science Day at IIT-Kanpur. Theme: Gender equity for prosperity with peace Title of talk: Being a woman in science,: March 30<sup>th</sup> , 2010, Jonaki Sen.
16. Designing of Supermacroporous Cryogel biomaterials for bioengineering applications The Fourth Asian Particle Technology Symposium (APT2009) Sept.14-16, 2009, New Delhi, Ashok Kumar.
17. Bioartificial Organs and Cell Therapy- Winter School, 21-23<sup>rd</sup> January 2010, Semmering, Austria, Ashok Kumar.
18. Contractility of Longitudinal Muscle in Gastroesophageal Motility, XXVII Annual Conference of Indian Academy of Neurosciences, Jaipur, India, Dec 20, 2009, Anupam Pal.
19. Biomechanics of reflux protection, Pan European Special Interest Group meeting on Dynamic Magnetic Resonance Imaging in Gastrointestinal Studies, Biomedical Research Unit, University of Nottingham, UK, February 26, 2010, Anupam Pal.
20. Development of an Image Analysis Tool for Studies of Gastrointestinal Tract in Three Dimensions from Magnetic Resonance Imaging, Division of Gastroenterology and Hepatology, University Hospital, Zurich, Switzerland, March 1, 2010, Anupam Pal.
21. Invited talk: Understanding Plant Nematode Biology using RNAi, Murdoch University, Perth, Australia, March 29, 2010, K. Subramaniam.

#### Chemical

22. Electrolyte Insulator Semiconductor based Microfluidic Biosensor for Early Disease Detection (Invited Seminar), Central Mechanical Engineering Research Institute, Durgapur, March 2010, S. Panda.
23. Probing interfacial adhesion on smooth and patterned layer of adhesive, Max-Planck-Institut für Polymerforschung, Mainz, March 2010, Ghatak A.

24. Adaptive Adhesion via Sub-surface Network of Fluid Filled microchannels, Leibniz Institute of New Materials, Saarbrücken, March 2010, Ghatak A.
25. Role of Catalysts in Petroleum Refining, Rajiv Gandhi Institute of Petroleum Technology, Rae Bareilly, March 2010, D. Kunzru.
26. Fluid near surfaces, Department of Polymer Engineering, BITS Ranchi, January 2010, Singh JK.
27. Mechanics of soft solids and adhesion, Mechanics over Micro and Nano Scales, Kolkata, December 2009, Ghatak A.
28. Comparative Study of Monolith and Conventional Multiphase Reactors, Chevron Corporation, Richmond, CA, USA, December 2009, D. Kunzru.
29. Fluid near surfaces, Department of Chemical and Biomolecular engineering, Vanderbilt University, November 2009, Singh JK.
30. Multigrain catalyst model for active matrix-zeolite FCC catalyst: modeling of riser reactor in resid cracking, Grace Chemicals, Columbia, November 2009, D. Kunzru.
31. Carbon nanofibers and nanoparticles: synthesis and applications, DMSRDE, Kanpur, November 2009, N. Verma.
32. Efficient computation of free energy of crystal phases due to external potentials by error-biased Bennett acceptance ratio method, Department of Aerospace Engineering, I. I. T. Kanpur, September 2009, P.A. Apte.
33. Ask not what you can do for the (Density functional) theory, but what the theory can do for you: How to convert a catalytic engineer to a quantum mechanic, Indian Institute of Science, May 2009, Pala RGS.

#### Civil

34. Interpretation of falling weight deflectometer data, Seloflex World Conference, New Delhi, February 5, 2010 by Das A.
35. Why roads fail?, Siddhananda Memorial Lecture, Bengal Engineering and Science University, Shibpur, December 18, 2009 by Das A.
36. Design principles for design of bituminous pavement with stabilized/cemented layer, National Workshop on Stabilization of Soil and Granular Layers for Pavements, PEC University of Technology, Chandigarh, October 24, 2009 by Das A.
37. Perpetual pavements: innovations in pavement design, (Key-note address), Civil Engineering Conference - Innovations Without Limits, September 18-19, 2009, NIT Hamirpur, Hamirpur by Das A.
38. Pavement engineering research at IIT Kanpur, NTEC, Department of Civil Engineering, University of Nottingham, July 17, 2009 by Das A.
39. Invited Talk entitled Advancements in hydrologic modeling using artificial neural networks in the Workshop on Development and Application of Advanced Soft Computing Techniques in Multidimensional Geospatial Data

- Analysis (WAST2009), 15-16 October 2009, IIT Kanpur, Kanpur, India by Jain, A.
40. Attended seminar on Seismic Analysis of Some Geotechnical Problems – Pseudo-dynamic Approach at University of Naples, Italy, 2009, Ghosh, P.
  41. Attended seminar on Seismic Response of Bridge Foundation in TRIGNO-VIII: Geotechnical Aspect at University of Molise, Italy, 2009, Ghosh, P.
  42. Attended INAE Annual Convention at IGCAR, Kalpakkam, (17<sup>th</sup> Dec, 2009), Gupta Tarun.
  43. Attended IASTA-2010, Darjeeling, (24<sup>th</sup> -26<sup>th</sup> Mar, 2010), Gupta Tarun.
  44. Attended National Research Conference on Climate Change, IIT Delhi, (5<sup>th</sup>-6<sup>th</sup> Mar, 2010), Gupta Tarun.
  45. Invited lecture on Role of basin geomorphology and application of river style framework for sustainable river management with special reference to north Bihar, Patna seminar on 'Floods: problems and challenges', 23 Feb., 2009 by Sinha, Rajiv.
  46. Invited lecture on Land degradation and drainage development: Role of geomorphology, National workshop on 'Basin wise Drainage Master Plan for Uttar Pradesh-Priorities & Actions', Lucknow, 2-3 March, 2009 by Sinha, Rajiv.
  47. Invited lecture on Sediment sourcing in the Gangetic alluvium, Himalayan foreland basin: competition between Himalayan and cratonic hinterland, CNRS Laboratory, Nancy, France, June 3, 2009 by Sinha, Rajiv.
  48. Invited lecture on The Great Kosi avulsion on 18<sup>th</sup> August, 2008, IGCP 582 meeting, La Plata, Argentina, Sept. 23, 2009 by Sinha, Rajiv.
  49. Aerosol charging in planetary atmosphere and its implication to lightning generation, Talk in Planex Seminar, Physical Research Laboratory, Ahmedabad, 10<sup>th</sup> May, 2009 by Tripathi, S.N.
  50. Optical properties of non-spherical particles, PRL Colloquim, Physical Research Laboratory, Ahmedabad, 11<sup>th</sup> May, 2009 by Tripathi, S.N.

#### Computer Science & Engineering

51. Research Promotion Workshop on Geometric and Graph Algorithms, TIFR and IT-BHU, Varanasi, January 27-29, 2010, Varanasi. Invited speaker, Sumit Ganguly.
52. Dagstuhl Seminar on Spatial Representation and Reasoning in Language: Ontologies and Logics of Space Title: Spatial Language and Grounded Ontologies [Invited presentation] Amitabha Mukerjee Dagstuhl, Germany, March 2010, Amitabha Mukherjee.
53. The Isomorphism Conjecture for NP, Invited talk at Computability in Europe conference, July 2009, Manindra Agrawal.

54. Two Problems of Number Theory, Invited talk at Kurukshetra University, Jan 2010, Manindra Agrawal.
55. The P versus NP problem, Public Lecture at JNU, Oct 2009 + invited talk at Homi Bhabha Birth Centenary conference, TIFR, Sep 2009 + talk at IIITDM, Jabalpur, Feb 2010, Manindra Agrawal.
56. Classifying Complexity of Problems Algorithmically, Talk at workshop on Complex Systems, IISc Bangalore, Jan 2010, Manindra Agrawal.
57. On Earth Mover's Distance: A Spatially Sensitive Distance Measure at the Dept. of Computer Science, Free University of Bozen-Bolzano, Italy. Dec, 2009, Arnab Bhattacharya.
58. Solution Concepts in Game Theory: An Introduction two one hour invited talks given at Formal Methods Update Meeting 2009, IIT Roorkee, 13-15 July 2009, Anil Seth.
59. Parity Games on Higher Order Multi-Stack Systems, A one hour talk delivered on 29 September 2009, at Laboratory of Computer Science (LaBRI), Bordeaux, France, Anil Seth.

#### Electrical

60. Cognitive radio, Department of Electronics & Communication Engineering, Thiagarajar College of Engineering, Madurai, April 2009, Adrish Banerjee.
61. Cognitive radio, Department of Electronics & Communication Engineering, PSNA College of Engineering and Technology, Dindigul, April 2009, Adrish Banerjee.
62. Cognitive radio, Microsoft Research Labs India, Bangalore, May 2009, Adrish Banerjee.
63. Turbo codes and its application to optical and relay channels, Dipartimento di Elettronica, Politecnico di Torino, Italy, June 2009.
64. Spectrum sensing for cognitive radio, Defense Electronics Application Laboratory, Dehradun, October 2009, Adrish Banerjee.
65. Adrish Banerjee, Turbo principle in communications, Defense Electronics Application Laboratory, Dehradun, October 2009, Adrish Banerjee.
66. Cognitive radio organized by IEEE Kolkata Section at Jadavpur University, January 2010, Adrish Banerjee.
67. Spectrum sensing for cognitive radio, Institute of Engineering & Management, Kolkata, January 2010, Adrish Banerjee.
68. Specifics of LTE-A air interface with emphasis on unique aspects: SC-FDMA and multiple antenna techniques in 3GPP long term evolution talk in A Unified Perspective of 4G: IEEE 802.16m and LTE-Advanced Workshop at IIT Madras, January 2010, Adrish Banerjee.
69. Cognitive artificial intelligence, workshop on integrating mathematics with spirituality, Dec 2009, Delhi University, Laxmidhar Behera.
70. Applications of assistive robotics in health care, Indo-French Workshop on ICT in Health Care, March 2010, Laxmidhar Behera.



71. Delivered an invited talk on, Antenna Selection and Beamforming Using Delayed CSI at ICICS, Macau in Dec 2009, Chaturvedi A. K.
72. An optimum unified power quality conditioner with minimum VA loading Netaji Subhas Institute of Technology (NSIT), New Delhi, (Organized by IEEE Delhi Section), 16<sup>th</sup> Nov. Das S.P.
73. Nano-dielectrics for the power industry at the workshop entitled Recent trends in condition monitoring of power apparatus and systems invited lecture at Department of Electrical Engineering, IIT Madras, during 26<sup>th</sup> to 30<sup>th</sup> Oct. 2009, sponsored by DST, New Delhi, Gupta Nandini.
74. Women's Participation in Science: Who benefits? Invited lecture at IIT Kanpur, at the seminar on Gender equity for Prosperity and Peace, National science Day, 30<sup>th</sup> march, 2010, Gupta Nandini.
75. Internet based experiments: exploring a new paradigm in distance education, Institute Lecture, IIT Kanpur, Oct.21, 2009, John J.
76. Virtual labs at IIT Kanpur, Invited talk, Golden Jubilee Reunion of the Pioneer Batch, Feb.21,2010, John J.
77. Role of academia and industry: experience with the technology mission project on railway safety, Brainstorming Session on health monitoring of automotives, Invited Talk, IIT Kanpur, March 10, 2010, John J.
78. Virtual lab on optical device characterization, HBTI Kanpur, March 27, 2010, John J.
79. Organic electronics, All India Council For Technical Education, Harcourt Butler Technological Institute, Kanpur, 1<sup>st</sup> January, 2009, Iyer S.S.K.
80. Solar energy research in India-a perspective DST-EPSRC Solar Energy Workshop (Indo-UK initiative), Deputy High Commissioner's residence, British High Commission, New Delhi, 22<sup>nd</sup> April, 2009, Iyer S.S.K.
81. An introduction to organic solar cells IEEE Photonics Society Seminar, Heriot-Watt University, Edinburgh, UK, 16<sup>th</sup> June, 2009, Iyer S.S.K.
82. Outlook for solar energy in India at the Workshop on 'Engineering Challenges of Deploying New Solar Energy Capacity in India' at the Royal Academy of Engineering, London, 28<sup>th</sup> September, 2009, Iyer S.S.K.
83. VLSI integrated circuit fabrication technology, Tutorial at the 15<sup>th</sup> International Workshop on the Physics of Semiconductor Devices (IWPSD '09) Jamia Millia Islamia, New Delhi, 14<sup>th</sup> December, 2009, Iyer S.S.K.
84. Improving efficiency and lifetime of organic solar cells, Invited talk at the 15<sup>th</sup> International Workshop on the Physics of Semiconductor Devices (IWPSD '09) Jamia Millia Islamia, New Delhi, 14<sup>th</sup> December, 2009, Iyer S.S.K.
85. Organic solar cells Tutorial at the International Symposium on Photovoltaic Science and Technology, IIT Kanpur, 12<sup>th</sup> January, 2010, Iyer S.S.K.
86. An IIT Kanpur perspective, Academia Workshop on Manpower Development for Photovoltaics, IIT Bombay, 30<sup>th</sup> January, 2010, Iyer S.S.K.

87. Power conversion for high performance on-board delivery system invited talk at Electrical Power Technology Lab., GE Global Research Center, March 03, 2010, S. K. Mishra.
88. Reconstruction analysis dual-grid and shape based reconstruction approaches for subsurface tomography, invited talk at the Workshop on Control and Inverse Problems, 1-15 Dec 2009, organized by the IISc. Mathematics Initiative, Dept. of Mathematics, Indian Institute of Science, Bangalore, Naik Naren.
89. Qureshi S., delivered a talk titled Recent developments in RFID tag chip design, at National Tsing Hua University (NTHU), Taiwan, November 2 - 3, 2009.
90. Course on MATLAB application to Electrical Engineering, 14-16 December 2009, KNIT Sultanpur (Guest Speaker), Singh S. N.
91. Compact matching circuit design for RFICs using composite right/left handed meta-material transmission line, in Taiwan-India Bilateral Workshop on Intelligent Chip Design at National Tsing Hua University, Hsinchu, Taiwan during Nov 1 to Nov 4, 2009, K. V. Srivastava
92. Enhancing electricity grid security through wide area monitoring and control invited talk in the ECE Department, Mississippi State University USA on 30<sup>th</sup> June 2009, Srivastava S.C.
93. Smart electric energy delivery systems: An introduction and systems perspective invited talk in the DST SERC workshop on Smart Energy Delivery Systems at IIT Kanpur on 15<sup>th</sup> January 2010, Srivastava S.C.
94. Srivastava S.C., Synchrophasors based wide area monitoring, protection and control of electricity grid invited seminar at University Sains Malaysia (USM) Penang Malaysia on 3<sup>rd</sup> March 2010, Srivastava S.C.
95. Self learning systems for surveillance video analysis, Electrical Engineering Department, IISc. Bangalore, 17/06/2009, Venkatesh K.S.
96. Computer vision applications for automated surveillance, metrology and human computer interaction, IRDE Dehradun, 11/01/2010, Venkatesh K.S.

#### Industrial Management & Engineering

97. Technical Communication (six lectures), School of Nuclear Energy, Pandit Deendayal Petroleum University, Raisan, Gandhinagar, December 05-06, 2009. N K Sharma.
98. Classroom teaching and learning in Engineering Education (Orientation Programme for the newly recruited faculty), KIIT University, Bhubaneswar, July 22, 2009. N K Sharma.
99. Combating the Challenges to Create Opportunities, Guest of Honour, 1<sup>st</sup> Convocation of Shri Ramswaroop Memorial College of Engineering and Management, Lucknow, August 11, 2009. N K Sharma.

100. Entrepreneurial Marketing Workshop, Aalto Entrepreneurship Society, Design Factory, Espoo, Finland, 15<sup>th</sup> April, 2009, J Chatterjee.
101. Multi-disciplinary Processes for Problem Based Learning of Design and Management at the MOA 2009 Seminar on Beyond Tomorrow – Responsibility for the Future at Helsinki University of Design & Art, Helsinki Finland, 18<sup>th</sup> May, 2009, J Chatterjee.
102. Modular Approach and Prototyping in Service Innovation, 2<sup>nd</sup> Annual Mod Sec Workshop, Service Factory, Helsinki School Of Economics, Helsinki Finland, 27<sup>th</sup> October, 2009, J Chatterjee.
103. User Driven ICT Enabled Service Innovations, Service Factory Summer School, Helsinki School of Economics, Helsinki Finland, 26<sup>th</sup> August, 2009, J Chatterjee.
104. An Ecosystem Approach to Service Co-Creation, Software Business & Engineering Institute, Helsinki University of Technology, Espoo Finland, 22<sup>nd</sup> October, 2009, J Chatterjee.
105. Alternative Logics for Services, Panel Discussion, Tekes-Serve Annual Seminar, Finlandia Hall, 28<sup>th</sup> May 2009, Helsinki, Finland, J Chatterjee.
106. Doctoral Students' Workshop Facilitation in the New Media Department on Prosumption Phenomena and Managing Customer Integration, 1<sup>st</sup> to 20<sup>th</sup> October, 2009, Technical University, Ilmenau, Germany, J Chatterjee.
107. Service Science Factory Seminar & Workshop, Maastricht University, Maastricht Netherlands, 29<sup>th</sup> October to 4<sup>th</sup> November, 2009, J Chatterjee.
108. Indian Institute of Management Calcutta, INDIA, Reliability in Portfolio Optimization using uncertain estimates, 17th June, 2009, Dr. Raghu Nandan Sengupta.
109. Army 515 Base Workshop, Bangalore, INDIA: Some Concepts and Use of EVT and Copula Theory in Optimization Application, 15th January 2010, Dr. Raghu Nandan Sengupta.
110. Delivered invited talk on Two Clustering of Gene expression Data at the International Conference on Bioinformatics at SVNIT, Surat, India, during March 25-28, 2010, B. Chandra.
111. Effective Learning in Context of Operations Research, Teaching Effectiveness Workshop APORS 2009 Dec7, 2009 Jaipur; AK Mittal.
112. Intellectual Property rights and OR, National Seminar RML University Faizabad 28<sup>th</sup> March 2010; AK Mittal.
113. Economics of regulations with emphasis on development of Power markets 4th Nov 2009, National Power Training Institute (NPTI), Faridabad; Anoop Singh.
114. National Conference on Cases and Research in Power and Energy Sector, as session judge, Power Management Institute, Noida, 16<sup>th</sup> Dec. 2010; Anoop Singh.
115. IEA-MNRE Workshop on Renewable Energy and Renewable Technology, New Delhi, 22-23 October 2009; Anoop Singh.

116. IIT Kanpur - Cambridge Workshop on Climate Co-benefit Policies and the Indian Power Sector: Stakeholders' Consultation, 25th May, 2009, New Delhi; Anoop Singh.
117. Reforms, Regulation and Investment in the Indian Power Sector, MDP on Infrastructure Development & Financing Institutions for the Officers of J&K Government, Indian Institute of Management Lucknow, 14<sup>th</sup> Dec. 2010; Anoop Singh.
118. Renewable Energy: Policies and Opportunities for J & K, MDP on Infrastructure Development & Financing Institutions for the Officers of J&K Government, Indian Institute of Management Lucknow, 14<sup>th</sup> Dec. 2010; Anoop Singh.
119. Reforms, Regulation and Investment in the Indian Power Sector, MDP on Infrastructure Development & Financing Institutions for the Officers of Senior Indian Economic Services, Indian Institute of Management Lucknow, 24<sup>th</sup> Jan. 2010; Anoop Singh.
120. Project Financing and PPP, Indian Railways Institute of Transport Management, 10<sup>th</sup> Dec. 2010; Anoop Singh.
121. Regulatory & Policy Developments, and Project Financing for the Indian Power Sector, IIML, 16<sup>th</sup> Oct. 2009; Anoop Singh.

#### Materials Science and Engineering

122. Invited talk "Processing-microstructure-property (physical and biological) relationship for Hydroxyapatite based Bioceramic composites for hard tissue replacement"; Department of Biomedical Engineering; University of Texas, San Antonio, USA, July 14, 2009, B. Basu.
123. Invited talk "Processing-microstructure-property (physical and biological) relationship for Hydroxyapatite based Bioceramic composites for hard tissue replacement"; Division of Engineering; Brown University, USA, July 16, 2009 B. Basu, .
124. Invited talk "Influence of electric field on cell-material interaction"; The fourth Asian Particle Technology Symposium (APT 2009), held in New Delhi during 14-16<sup>th</sup> September, 2009, B. Basu.
125. Invited talk Hydroxyapatite based bioceramic composites for hard tissue replacement and Analytical/Experimental study on cell-electric field interaction; IIM Varanasi chapter, BHU, 11<sup>th</sup> December, 2009, B. Basu.
126. Invited talk Influence of electric and magnetic field on cell-material interaction; DAV College, Kanpur, 12<sup>th</sup> December, 2009, B. Basu.

127. Secondary Steelmaking and ladle metallurgy, Mahindra UGINE Steel Industries, Khopoli, Maharashtra, 2009, D. Mazumdar.
128. Steelmaking technology National Workshop on Process Modeling in Iron Making & Steel Making, 7-8, September 2009, D. Mazumdar.
129. Physical and Mathematical Modeling : Fundamental Principles, National Workshop on Process Modeling in Iron Making & Steel Making, 7-8, September 2009, D. Mazumdar.
130. Physical and Mathematical modeling: Applications to steelmaking process analysis and design, National Workshop on Process Modeling in Iron Making & Steel Making, 7-8, September 2009, D. Mazumdar.
131. Metallic Glass and its plasticity, Aerospace lecture series, IIT Kanpur, 20<sup>th</sup> March, 2010, K. Mondal.
132. Optimal exploitation and value addition of minerals with state of the art technologies, Seminar on Management of Energy Resources - Issues and Challenges, Indian school of Mines University, Dhanbad, January 31-February 1, 2009, S. P. Mehrotra.
133. R&D for Indian iron and steel industry: Future directions, DAAD Alumni Club Symposium - ASM 2009, Puri (Orissa), March 22, 2009, S. P. Mehrotra.
134. Marine mineral resources and their processing, Brainstorming on Programme on Marine Resource development and Management, IIT Kharagpur, April 14, 2009, S. P. Mehrotra.
135. Mechanochemistry and mechanical activation of solids - trends in mineral processing and waste utilization, International Conference Mineral Processing Technology (MPT-2009), Institute of Minerals and Materials Technology, Bhubaneswar, October 28-30, 2009, S. P. Mehrotra.
136. Invited talk Diffusion bonded Metal-Intermetallic interface Characterisation; at workshop on Interfaces and mechanical behavior of materials, UGC Networking Resource Centre for Materials (NRC-M) at the Department of Materials Engineering, IISc, October, 2009, Gouthama.
137. Invited talk Polymer & Nano-Materials Characterization by SEM & EDX, at CEP Workshop on Advanced Characterisation techniques for polymers and Nano-materials, DMSDRE, Kanpur, September, 2009, Gouthama.
138. Invited talk Cross-sectional transmission electron microscopy: Diffusion bonded Interface and Waterjet Machined Sub-Surface at International Conference on Advances in Electron Microscopy and Related Techniques, BARC, Mumbai, India, March 8-10, 2010, Gouthama.
139. Tailoring of Structure and Properties in Bismuth Ferrite Thin Films and Ceramics, MRS Spring Meeting, 13-17 April 2009, San Francisco, CA, Ashish Garg.

## Mechanical

140. Simulation of Oscillatory Flow in Tubular Bifurcations on Unstructured Grids, presented at the International Workshop on New Horizons in Nuclear Reactor Thermal Hydraulics, held on 24<sup>th</sup> March 2009 at Bhabha Atomic Research Center, Mumbai (2009), K. Muralidhar.
141. Interferometry, schlieren, and shadowgraph, presented at the International Symposium on Recent Trends in Flow Visualization, held at IIT Roorkee during 29-31 December 2009, K. Muralidhar.
142. Overview of Active and Passive Vibration Control Techniques - Department of Automation and control, University of Sheffield, UK, 15.09.2009.9, Bishakh Bhattacharya.
143. Health Monitoring of Pipes using Conduit Crawling Robot, International Symposium on Research Collaboration, Waseda University, Fukuoka, Japan, 08.03.2010, Bishakh Bhattacharya.
144. Lager-Eddy Simulation for Some Flows of Engineering Interest, 11<sup>th</sup> Annual CFD Symposium, Organised by Aeronautical Society of India, Bangalore, 11-12 August 2009, S. Sarkar.
145. Instabilities and chaos in convective flows, at the Workshop on Thermoacoustic Instabilities, IIT-Chennai, India, January 18-22, 2010, Pankaj Wahi.
146. Patterns and chaos in convection through bifurcations, at the International Conference on Turbulence with a focus on MHD, Liquid metal and Dynamo, IIT-Kanpur, India, December 21-23, 2009, Pankaj Wahi.
147. Galerkin projections for delayed systems with variable delays: a state-dependent delay model for turning, at the conference Recent Advances in Nonlinear Mechanics, Kuala Lumpur, Malaysia, August 24-27, 2009, Pankaj Wahi.
148. A new approach to frictional chatter in metal cutting, at the conference Recent Advances in Nonlinear Mechanics, Kuala Lumpur, Malaysia, August 24-27, 2009, Pankaj Wahi.
149. Regenerative chatter in turning, International Seminar Series on Applied Mechanics organized at the Center for Applied Dynamics Research, School of Engineering, University of Aberdeen, Aberdeen, Scotland, United Kingdom, June 23, 2009, Pankaj Wahi.
150. Invited speaker: Structure and Mechanics of Biological Membranes, NPMASS-ISSS Workshop on Microsystems Technology, North Eastern Hill University, Shillong, 27 March, 2010, Sovan Das.
151. High-speed Experimental Mechanics, Proof & Experimental Establishment, Chandipur, Balasore, July 2009, P. Venkitanarayanan.

152. Split Hopkinson Bar: Adaptations, National Workshop on High Strain Rate Behavior of Materials, Terminal Ballistics Research Laboratory, Chandigarh, February 25-26, 2010, P. Venkitanarayanan.
153. NPMASS workshop on MEMS Technology and its applications, Cummins college of Engineering, Pune, 22-24th January, 2009, S. Bhattacharya.
154. Indo-Japan Workshop, Symbiosis International University, Senapati Bapat Road- Pune, March 8-15, 2009, S. Bhattacharya.
155. Seminar in DST Nanosciences meet, Vedic village, Kolkata, 15-17th March, 2009, S. Bhattacharya.
156. BARC school on micromachining and sensing technologies, IITMumbai, 2-7th June, 2009, S. Bhattacharya.
157. CMERI, Durgapur, 15-16th July, 2009, S. Bhattacharya.
158. SERC school on micromachining technologies, IIT Kanpur, 20-25th, July, 2009, S. Bhattacharya.
159. Organized a 3 day National programme on MEMS technologies and its applications at IIT Kanpur, September 9-12th, 2009, S. Bhattacharya.
160. CEP on Smart Polymers for Electronic and Smart Application from 30th November - 4th December, 2009 at DMSRDE, Kanpur, S. Bhattacharya.
161. Co-Organized the Golden jubilee symposium on Fabrication at small scale (FASS) and Indo-US conference on Fabrication: Science of advanced fabrication, at IIT-Kanpur between 9-13th Dec, 2009, S. Bhattacharya.
162. MGM college of Engineering at Nanded at their annual event VISIOTECH 2010, 20-21st February, 2009, S. Bhattacharya.
163. Invited QIP Lecture at IIT Kanpur in the workshop on Carbon Nanotubes and Carbon in nanotechnology, 22-23rd February, 2009, S. Bhattacharya.
164. Co-Organized the International conference on health and technology. 15-17th March, 2010, S. Bhattacharya.
165. Invited QIP Lecture at IIT Kanpur in the workshop on Micro-Nano fabrication, 22-23rd February, 2009, S. Bhattacharya.
166. Invited lecture at the Department of Chemical Engineering and technology, Punjab Engineering College, Punjab University, Chandigarh, 3-4th April, 2010, S. Bhattacharya.
167. Incremental Sheet Metal Forming, The 5<sup>th</sup> India-Japan Joint Seminar on Production, measurement, QC& Micro/Nano Manufacturing, Tokyo, Japan, March 15-19, 2010, 39-45, N V Reddy.
168. Dropwise Condensation on Textured Surfaces: Issues and Prospects, Keynote Lecture, 9th International ASME-ISHMT Heat and Mass Transfer Conference, Mumbai, India, January, 2010, S. Khandekar.
169. Learning through Real and Virtual Experiments, Institute Lecture, Rajeev Gandhi Institute of Petroleum Technology, Rai Bareilly, January 2010, S. Khandekar.

170. Internet based Real Time Experiments, Institute Lecture, IIT Kanpur, October 2009, S. Khandekar.
171. Keynote lecture at the IEEE Congress on Evolutionary Computation (CEC-2009) to be held in Trondheim, Norway entitled 'Evolution's Niche in Applied Optimization and Informatics', May, 2009, K. Deb.
172. Keynote lecture at Papermaking Research Symposium in Kuopio, Finland entitled 'Evolutionary Optimization in Practice', June, 2009, K. Deb.
173. Invited Tutorial to be delivered at CEC-2009 Conference in Trondheim, Norway entitled 'Recent Challenges to Evolutionary Multi-Criterion Optimization (EMO)', May, 2009, K. Deb.
174. Invited Tutorial to be delivered at ACM SIGEVO sponsored Genetic and Evolutionary Computation (GEC-Summit) in Shanghai, China entitled 'Evolutionary Multi-Objective Optimization: Current Approaches and Future Directions', June, 2009, K. Deb.
175. Invited Tutorial at Multiple Criterion Decision Making (MCDM) Conference in Chengdu, China entitled 'Evolutionary Multi-Criterion Optimization and Its Applications', June, 2009, K. Deb.
176. Invited CSIRO Multiobjective Optimisation Workshop entitled 'Introduction to Multi-Objective Optimization' and 'Introduction to NSGA-II' at CSIRO, New Castle, Australia, September, 2009, K. Deb.
177. Binod Sreenivasan, Constructing Earth-like dynamo models, Seminar at Aerospace Engineering Department, IIT Madras, 31/04/10.

#### Humanities and Social Sciences

178. Linguistic Impediments in the Advancement of Research Academics-An Interdisciplinary Approach - Invited seminar- Dayanand Girls College, Kanpur, 9 September 2009 - A.K. Sharma.
179. Curricular Knowledge and Indian Education: Systemic Inequality and Pathways of Hope - Invited lecture at ICICI Centre for Elementary Education, Pune, 30<sup>th</sup> November 2009, Amman Madan.
180. Education system in India: Introspection- Invited lecture at UIET, Chhatrapati Shahu Ji Maharaj University, Kanpur, 11<sup>th</sup> November 2009, Amman Madan.
181. Sectarian Identity, Sanskritization and the Question of the 'Classical/Vernacular'. Paper presented at the International Seminar on Language, Culture and Identity: Issues and Challenges, Department of Linguistics, Aligarh Muslim University in collaboration with the Central Institute of Indian Languages, Mysore. 2010, Anindita Chakrabarti.
182. Semantics of Event Causation in Hindi, ICOSAL-9, Department of Linguistics and Punjabi Lexicography, Punjabi University, Patiala, January, 2010, Achla M. Raina.



183. Contrastive Polysemy in Concept Space: Implications for Multilingual Semantic Lexicons, Fifth Global WordNet Conference, IIT Mumbai, February, 2010. - S. Banerjee, H. Karnick & Achla M.Raina.
184. Corepresentation of Linguistic Structures: A Comment, International Seminar on Language, Mathematics, Music and Society, Vidya Bhawan Education Resource Centre and VBGs Institute of Advanced Studies in Education, Udaipur, Rajasthan, February, 2010. - Achla M. Raina
185. Traditional knowledge/ practices and brain-behaviour research outcomes, Understanding the Mysterious brain, Brain Awareness Week, Indian Institute of Information Technology, Allahabad, March 14, 2010 - Braj Bhushan.
186. Correlational research using SPSS. Continuing Education programme for DRDO scientists, Defence Institute of Psychological Research, New Delhi. Feb. 19, 2010 - Braj Bhushan.
187. Understanding and Grooming the Self. School of Management Sciences, Varanasi- July 17, 2009. - Braj Bhushan.
188. Challenges Within, Challenges Outside: Understanding & Surmounting Them, School of Management Sciences, Varanasi- July 16, 2010 - Braj Bhushan.
189. Inaugural address -Workshop on Integration of Technology in Teacher Education, CSJM University, Kanpur - May 26, 2009 - Braj Bhushan.
190. Introduction to Human Rights. Orientation Programme, UGC Academic Staff College and Department of Political Science, Lucknow University, Lucknow, 21 January 2010. - Munmun Jha.
191. Human Rights Movement in India: An Overview. Anthropology and Ethnomusicology Research Seminar, School of History and Anthropology, Queen's University, Belfast, 5 May 2009 - Munmun Jha.
192. Word versus Word-meaning: A la Śābdanirnaya. Paper presented at the National Seminar on Mind and Meaning, organized by the Department of Philosophy in collaboration with the Department of Neural and Cognitive Sciences, University of Hyderabad, March 2010 - Nirmalya Guha.
193. Valedictory address, delivered at the International conference on Globalization, Society and Culture. Dept of Sociology, University of Poona, 25 Feb, 2010 - Binay K Pattnaik.
194. Globalization. ICT revolution and Socio-cultural Changes: Sociological explorations. Paper presented at the International Conference on Globalization, Society and Culture, Dept of Sociology, University of Poona, 23-25 February, 2010. Binay K Pattnaik.
195. Science and Technology in the Global South: A Perspective to Globalization. Invited lecture at the National Institute of Science Technology and Development Studies (NISTADS), CSIR, New Delhi, on 29<sup>th</sup> January, 2010 - Binay K .Pattnaik.

196. Invited talk at the Seminar on Stability of Indian Economy in Global Meltdown, Institute of Business Management, CSJM University, Kanpur, on 14 November, 2009. - Praveen Kulshreshtha.
197. Invited talk at the Seminar on Managing Across Cultures: Cultural Issues in Global HR Management, Institute of Business Management, CSJM University, Kanpur, 17 April, 2010. - Praveen Kulshreshtha.
198. Seminar on Indian Aesthetics - HSS Weekly Seminar Series: Sept -Oct 2009, Prashant Bagad.
199. Two Invited Lectures on Non-verbal Communication and Interview Skills at the MHRD/ AICTE -sponsored Summer School on Functional English for Science and Engineering Teachers , Department of Humanities and Social Sciences, Indian Institute of Technology Kharagpur, Kharagpur 14-20 July 14, 2009 - T. Ravichandran.
200. Participated in an invited Brainstorming Session on IIT Gandhinagar Communication Skills Initiative from 20 to 21 February 2010 in the Department of Humanities and Social Sciences, Indian Institute of Technology, Gandhinagar - T. Ravichandran.

#### Chemistry

201. Second Asian Conference on Coordination Chemistry, China, Nov 1-4, 2009, P.K. Bharadwaj.
202. Modern Trends in Inorganic Chemistry, IISc Bangalore, Dec. 5-9, 2009, P.K. Bharadwaj.
203. National Seminar on Contemporary Research in Materials Science and Chemical Biology, Allahabad University, Jan 31 -Feb 2<sup>nd</sup>, 2010, P.K. Bharadwaj.
204. Binuclear Water-Gas-Shift (WGS) Reactions MTIC-XIII, IISc Bangalore, December 07-10, 2009, J.K. Bera.
205. Metal-Ion Complexation and Protonation of Ferrocene-Naphthyridine Conjugates IRIS-XII, Goa, India, August 16-21, J.K. Bera.
206. Structural diffusion of protonic defects in water-filled narrow pores, Indo-French Centre for the Promotion of Advanced Research (held in Bangalore), April 03, 2009, A. Chandra.
207. Vibrational spectral diffusion in hydrogen bonded systems under normal and supercritical conditions, Devi Ahilya Vishwavidyalaya, July 19, 2009, A. Chandra.
208. Kinetics of proton transfer in aqueous systems of varying dimensions, University of Innsbruck, Austria, August 24, 2009, A. Chandra.
209. Chemical dynamics in aqueous media, Supercomputing-09, Convention Centre, Portland, USA, November 20, 2009, A. Chandra.

210. Hydration, Dynamics and Vibrational Spectroscopy of Aqueous Systems under Normal and Supercritical Conditions, National Chemical Laboratory, Pune, October 09, 2009, A. Chandra.
211. Hybrid quantum-classical simulations: An introduction to the QM/MM Method (three lectures), Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, December 9-10, 2009, A. Chandra.
212. Hydration structure and transport kinetics of protonic defects in water-filled narrow hydrophobic pores: Role of hydrogen bond fluctuations, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, December 18, 2009, A. Chandra.
213. Proton transport kinetics in hydrogen bonded networks of varying dimensions, IISER Kolkata, December 28, 2009, A. Chandra.
214. Proton transfer reactions in aqueous media, Reliance Industries Limited, Vadodara, January 04, 2010, A. Chandra.
215. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets, An Invited Talk at the National Conference, Recent Advances in Chemical Research, Osmania University, Hyderabad, Feb 6-7, 2009, V. Chandrasekhar.
216. Single-Molecule Magnets, CNR Rao Lecture, Feb 27, 2009, IIT Kanpur, V. Chandrasekhar.
217. Star-burst-, Linear and Cross-linked Macromolecule- Metal Nanoparticle Hybrids as Efficient Recyclable Catalysts, A talk presented at the National Review and Coordination Meeting on Nanoscience and Nanotechnology (NSNT-2009), Kolkata, March 12 2009, V. Chandrasekhar.
218. Pathways to Organotin Hydroxides and -Oxides: Nanodimensional Organostannoxane Assemblies, An Invited Talk in the International Conference
219. Coordination and Organometallic Chemistry, Bharathiar University, Coimbatore, March 19 and 20 2010, V. Chandrasekhar.
220. 3d-4f Heterometallic Trinuclear Compounds. A New Family of Single-Molecule Magnets, An invited talk given at the Department of Chemistry, Jadavpur University, Kolkata, March 26 2009, V. Chandrasekhar.
221. Phosphorus-supported ligands for the assembly of multi-metallic ensembles, An Invited talk given at the conference, Emerging Trends in Chemistry, Indian Institute of Science, Bangalore, May 13-15, 2009, V. Chandrasekhar.
222. Emerging Trends in Catalysis and Bio-catalysis, An Invited Talk in the International Conference, Biocatalysis for Industry, Medicine & Environment, Sri Sathya Sai University, Prashanthi Nilayam, Puttaparthi district, Andhra Pradesh, Aug 11-13 2009, V. Chandrasekhar.
223. Nanodimensional Organostannoxane Assemblies, An Invited talk given at the International conference Inorganic Ring Systems, Goa, August 16-21 2009, V. Chandrasekhar.

224. Multinuclear Copper (II) Phosphonates Containing Ancillary Nitrogen Ligands, Invited Talk in the 2<sup>nd</sup> Indo-German Frontiers of Chemistry Symposium, University of Leipzig, 16-19 September 2009, V. Chandrasekhar.
225. Kanpur-Cologne: A bridge not too far, a lecture given at University of Cologne, Germany, 21<sup>st</sup> September 2009, V. Chandrasekhar.
226. Phosphorus-supported ligands for the assembly of multi-metallic ensembles, Invited Talk in the Indo-Russian symposium, Structure and properties of organic and organometallic crystals: From fundamental research to advanced applications, Institute of Solid State Chemistry & Mechanochemistry SB RAS, Novosibirsk, September 27-30, 2009, Novosibirsk, Russia, V. Chandrasekhar.
227. Safety in Chemistry Labs, A talk given in the conference CHEMFEST IIT Kanpur 31 Oct 2009, V. Chandrasekhar.
228. Single Molecule magnets, An Invited talk at the JNCASR sponsored conference in Tezpur University, Nov 20-22 2009, V. Chandrasekhar.
229. Unusual Main-group-containing Compounds, An Invited talk at the JNCASR sponsored conference in Tezpur University, Nov 20-22 2009, V. Chandrasekhar.
230. 3d-4f Heterometallic Trinuclear Compounds, A New Family of Single-Molecule Magnets, An Invited talk given in the conference Modern Trends in Inorganic Chemistry IISc Bangalore, 7-10 December 2009, V. Chandrasekhar.
231. Synthetic and mechanistic perspectives of Lewis acid mediated S<sub>N</sub>2 type ring-opening of aziridines and azetidines', IIT Kharagpur, November 16, 2009, M.K. Ghora.
232. From Quantum Computing to Medical Imaging with Femtosecond Spectroscopy, Department of Chemistry Seminar, Stanford University, May 8, 2009, D. Goswami.
233. Vistas of Femtosecond Control, Institute Colloquium, IISER Mohali, Chandigarh, October 31, 2009, D. Goswami.
234. Femtosecond Coherent Control Experiments: Exploring Multiple Control Knobs Simultaneously, Symposium on Time and Spatially Resolved Spectral Analysis, Advanced Centre of Research in High Energy Material (ACRHEM), University of Hyderabad, Nov.14, 2009, D. Goswami.
235. Simultaneous Effect of Control 'Knobs' for Experimental Quantum Computing, International School on Quantum and Nano Computing Systems and Applications (QANSAS-2009), Dec. 15-18, 2009, D. Goswami.
236. Remotely Sensing Liquid-Liquid Interface with Femtosecond Pump-Probe Spectroscopy, 1<sup>st</sup> Ultrafast Dynamics Symposium, National Chiao Tung University, Hsinchu, Taiwan, January 14, 2010, D. Goswami.
237. Quest for Experimental Quantum Computation: Towards Spatiotemporal Control, International Programme on Quantum Information, Institute of Physics, Bhubaneswar, Jan 18, 2010, D. Goswami.

238. The Green Fluorescence protein - From humble marine origins to a protein label- DG college Kanpur 22 Feb 2010, R. Gurunath.
239. Invited Lecture at NOST Symposium during May 1-4, 2009, Goa, F.A. Khan.
240. Invited Lecture at 2<sup>nd</sup> Indo-German symposium during September 16-19, 2009 held at University of Leipzig, Germany, F.A. Khan.
241. Understanding nanostructures, Symposium on Nanotechnology at Bharathiyar, University, Coimbatore, Feb, 02-04, 2010, S. Sundar Manoharan.
242. Magnetoresistance in perovskite oxides, Krishnamal college for women, Coimbatore, Feb 2<sup>nd</sup>, 2010, S. Sundar Manoharan.
243. Issues related to Spintronic Nanostructures: Growth mode and magnetic properties, BARC, Materials Division, Mumbai, January, 2010, S. Sundar Manoharan.
244. Sterically-Engineered Molecular Modules for Organic Nanoporous and Amorphous Functional Materials International Conference on Chemistry of Organic Solid State, ICCOSS, Sestri Levante, Italy, June 11-15, 2009, J.N. Moorthy.
245. Exploitation of Sterics in Organic Solid State Reactivity and Molecular Organization, Indo-Russia Meeting on Solid State chemistry, Novosibirsk, Russia, Sept, 2009, J.N. Moorthy.
246. University Golden Jubilee National Seminar on Chemistry Today (UGJ-NSCT) March 18-20, 2010, Department of Chemistry, The University of Burdwan, Burdwan (March 20, 2010), R.N. Mukherjee.
247. Metal-Coordinated Radicals. Bioinorganic and Inorganic Perspectives, Workshop on Frontiers in Bioinorganic Chemistry, Centre for Bioinorganic Chemistry, School of Chemistry, Bharathidasan University, Tiruchirapalli, (February 25-27, 2010), R.N. Mukherjee.
248. Metal-Coordinated Radicals. Bioinorganic and Inorganic Perspectives Modeling Phosphate Ester Hydrolysis. Phenoxo-bridged Dinuclear Co<sup>II</sup>, Ni<sup>II</sup>, and Zn<sup>II</sup> Complexes, (February 26, 2010), R.N. Mukherjee.
249. \*Two-day Seminar on Frontier Areas of Chemistry - A Modern Perspective, Department of Chemistry, Ramakrishna Mission Vidyamandir, Belur Math, Howrah - 711 202 (February 25, 2010), R.N. Mukherjee.
250. Metal-Coordinated Radicals. Bioinorganic and Inorganic Perspectives, \*National Seminar on Contemporary Research in Material Science and Chemical Biology (January 31-February 2, 2010), Department of Chemistry, University of Allahabad, R.N. Mukherjee.
251. Modelling Phosphate Ester Hydrolysis. Phenoxo-bridged Dinuclear Co<sup>II</sup>, Ni<sup>II</sup>, and Zn<sup>II</sup> Complexes, \*Workshop for 'College Chemistry Students and Teachers', Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore and Foundation for Capacity Building in Science (FCBS), Trivandrum (October 29-31, 2009), R.N. Mukherjee.

252. Bioinorganic Chemistry: Tyrosinase, Metal-Ligand Chemistry: Metal-Centered and Ligand-Centered Redox Processes, \*Symposium - VII on 'Current Trends of Chemical Research', Chemical Research Society of India (Kolkata Chapter) (August 8, 2009), R.N. Mukherjee.
253. Department of Chemistry, Ramakrishna Mission Residential College, Narendrapur, Kolkata - 700 103, R.N. Mukherjee.
254. Tyrosinase, Catechol Oxidase, and Hydrolases: Synthetic Model Studies, Refresher Course in Chemistry, UGC-Academic Staff College, School of Chemistry, The University of Hyderabad, Hyderabad (July 25, 2009), R.N. Mukherjee.
255. Bio-inorganic Chemistry: Hydrolytic Enzymes, \*School of Chemistry, The University of Hyderabad, Hyderabad (July 24, 2009), R.N. Mukherjee.
256. Metal-Ligand Chemistry: Metal-centered and Ligand-centered Redox Processes, \*Department of Chemistry, Jadavpur University, Kolkata (June 11, 2009), R.N. Mukherjee.
257. In silico drug design; new developments, Central Drug Research Institute, Lucknow, March 2010, Nisanth N. Nair.
258. Rare Events In Silico, RAMET International Conference, IACS Kolatta, January 2010, Nisanth N. Nair.
259. Simulating Rare Events In Chemistry, IISc, Bangalore, December 2009, Nisanth N. Nair.
260. Magnetic Exchange & Magnetostructural Dynamics in Ferredoxins, JNCASR, Bangalore, December 2009, Nisanth N. Nair.
261. Rare Events and Configurational Sampling by Computer Simulations, JNCASR, Bangalore, December 2009, Nisanth N. Nair.
262. Chemfest, IIT Kanpur, October 31, 2009, Madhav Ranganathan.
263. Department of Chemistry, IIT Delhi, November 10, 2009, Madhav Ranganathan.
264. Bioinspired Design of Porphyrin and Bisporphyrin based Metal Complex, Department of Chemical Sciences, TIFR, Mumbai on June 15, 2009, S. P. Rath.
265. Metal Ion Displacements in a Nonplanar Porphyrinic Environment, Department of Chemistry, IIT Bombay on June 19, 2009, S.P. Rath.
266. Invited talk, Dibrugarh University, National Chemistry Conference, 26-27 th March, 2009, S. Sarkar.
267. Invited talk, International Conference in Nanostructured Materials and Nanocomposite Synthesis, Kottaym, Kerala April 6-8, 2009, S. Sarkar.
268. Invited Talk, Chemistry Department, IIT Guwahati, 11Aug, 2009, S. Sarkar.
269. Invited talk, Department of Chemistry Jodhpur University, August, 25, 2009, S. Sarkar.
270. Invited talk, Prof. R. K. Barua Memorial Lecture, Department of Chemistry, Guwahati University, 14<sup>th</sup> September, 2009, S. Sarkar.

271. Invited talk, Advanced Symposium of Asian Biological Inorganic Chemistry in TIFR, Mumbai, 1-7 Nov, 2009, S. Sarkar.
272. Mentor, Science Pursuit for Inspired Research (INSPIRE), December 15 to 21, 2009 Indian Institute of Technology, Guwahati, S. Sarkar
273. Invited talk in 2nd National Conference on Nano Material and Nanotechnology, Department of Physics, Lucknow, December 21-23, 2009, S. Sarkar.
274. Invited Talk, Chemistry Department, Bengal Engineering and Science University, Shibpur, Howrah, 15<sup>th</sup> January, 2010, S. Sarkar.
275. Invited talk, National Seminar on Contemporary Research in Material Science and Chemical Biology, Department of Chemistry, University of Allahabad, 2<sup>nd</sup> February, 2010, S. Sarkar.
276. Invited talk, Frontiers in Bioinorganic Chemistry, Chemistry Department Bharati Dashan University, Trichi, TN, 25<sup>th</sup> February, 2010, S. Sarkar.
277. Invited talk, Frontier Areas of Chemical Sciences, Department of Chemistry St Andrews College, Gorakhpur, 20<sup>th</sup> March, 2010, S. Sarkar.
278. Hydration Dynamics in Nano and Interfacial Environment, International Congress of Chemistry and Environment (ICCE - 2009 at Thailand), 22 January 2010, Pratik Sen.
279. Symmetry in molecular structure and dynamics, at the symposium on symmetry, February 2010, IISER Mohali, K. Srihari.
280. Role of intramolecular vibrational energy flow in quantum control, at Spectroscopy and Dynamics of Molecules and Clusters VII, February 2010, Goa, K. Srihari.
281. Intramolecular vibrational energy redistribution: dynamical insights and control from a classical-quantum correspondence perspective, at the second German-Indian symposium on Frontiers of Chemistry, September 2009, Leipzig, Germany, K. Srihari.
282. Role of dynamical tunneling in the control of driven systems at the conference on Tunneling and scattering in complex systems - from single to many particle physics, September 2009, Dresden, Germany, K. Srihari.
283. Bio-inorganic Interface: Iron Mineralization in Blood Protein. Recent Trends in Inorganic and Nano Chemistry, Madurai Kamaraj University, Madurai, 2010, Sandeep Verma.
284. Silver-Adenine Frameworks: Scalable Complexity and Surface Patterns. Modern Trends in Inorganic Chemistry-XIII, Indian Institute of Science, Bangalore, 2009, Sandeep Verma.
285. Making and milling peptide-based soft structures. Winter School on the Chemistry and Physics of Materials, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, 2009, Sandeep Verma.

286. Peptide soft structures as ion beam fabrication platforms. 2<sup>nd</sup> Indo-German Frontiers of Chemistry Meeting, University of Leipzig, Germany, 2009, Sandeep Verma.
287. Peptide-based soft materials as delivery vehicles and fabrication platforms, Conference on Functional Materials, Goa, 2009, Sandeep Verma.
288. Peptide-based soft structures: Design, synthesis, and morphology. University of Strasbourg, France, 2009, Sandeep Verma.
289. 'Synthesis of Novel Mono- and Bicyclic Azasugars as Glycosidase Inhibitors Jubilant-Biosys, Bangalore on June 4, 2009, Y.D. Vankar.
290. Development of Newer Methodologies in Carbohydrate Chemistry en route to Some Biologically Important Molecules, Department of Organic Chemistry, IISc Bangalore, June 5, 2009, Y.D. Vankar.
291. Development of Newer Methodologies in Carbohydrate Chemistry en route to Some Biologically Important Molecules, Department of Chemistry, IIT New Delhi, February 1, 2010, Y.D. Vankar.

#### Mathematics and Statistics

292. Turing and non-Turing pattern formation in ratio-dependent predator-prey model, Department of Applied Mathematics, University of Calcutta, Malay Banerjee 25<sup>th</sup> Feb., 2010.
293. Deterministic and stochastic dynamics in mathematical ecology, Department of Mathematics, Banaras Hindu University, 24<sup>th</sup> Oct., 2009, Malay Banerjee.
294. Formulation of stochastic models in mathematical ecology, Department of Mathematics, Banaras Hindu University, 25<sup>th</sup> Oct., 2009, Malay Banerjee.
295. Numerical simulation of SDE models in mathematical ecology, 25<sup>th</sup> Oct., 2009, Malay, Banerjee.
296. Invited talk on Some set theories and algebras with their representations, Seminar on Logic and Set Theory, Department of Pure Mathematics, University of Calcutta, December 21-22, 2009, Mohua Banerjee.
297. Invited talk on Logics for some 'dynamic spaces': a study in rough set theory, Annual workshop on the Calcutta Logic Circle (CLC), IBRAD, Kolkata, September 18-20, 2009, Mohua Banerjee.
298. Invited talk 'Mathematical Models for the Dynamics of HIV primary infection', Central University, Rajasthan Jaipur, March 19, 2010, P. Chandra.
299. Invited talk at the DBS College, Kanpur, P. Chandra.
300. Local properties of Holomorphic functions, delivered lectures in the ATM Workshop on Several Complex Variables and Complex Dynamics held at IISc Bangalore during March 1-12, 2010, S Chavan.
301. Christian Womens College-An Autonomous Institution affiliated to University of Madras July 24'2009, M. K. Kadalbajoo.
302. BHU - July 3-5, 2009, (03 lectures), M.K. Kadalbajoo.



303. IIT Roorkee, December 19, 2009, M. K. Kadalbajoo.
304. NIT Nagpur December 21-23, 2009 (04 lectures), M. K. Kadalbajoo.
305. Centre of Advanced Study, Punjab University, Chandigarh December 29, 2009, M. K. Kadalbajoo.
306. Invited Lecture 'Modeling of Natural Objects With Fractal Interpolation' at Pre-International Congress of Mathematicians 2010 Workshop, Kumaun University, Nainital, India, March 26-27, 2010, G.P. Kapoor.
307. Measure Theory, Institute of Mathematics & Application, Bhubaneswar, June 2009, P. Mohanty.
308. Invited talks on Exponential of a square matrix A and applications to dynamical systems. Organization and date: DST - Center for Interdisciplinary Mathematical Sciences (CIMS), BHU (Varanasi) is organizing a training program cum workshop on Dynamical System: Analysis and Applications under India Math Year Program from 22-31 October, 2009, V. Raghavendra.
309. Delivered 4 lectures on Introduction to Ordinary and Partial differential equations Organization and date: A Refresher course for college teachers held at Pure Mathematics Department Calcutta University starting from 17 November to 8-9<sup>th</sup>, December 2009, V. Raghavendra.
310. On the behavior of Fourier transform on Harmonic NA groups, 11<sup>th</sup> Discussion meeting in Harmonic Analysis, January 6<sup>th</sup> 2010, NISER, Bhubaneswar, S.K. Ray.
311. Measurement error Models at Indian Institute of Science Education and Research (IISER), Kolkata, India in December, 2009, Shalabh.
312. Measurement Errors Models in Bioinformatics at the Seminar -cum - Workshop on Molecular Modeling, Protein-Protein Interactions and Computer Aided-Drug Design at Center of Bioinformatics, University of Allahabad, India in March 2010, Shalabh.
313. Local Search Problems can be easy as well as hard to solve, APORS2009, 6-9<sup>th</sup> Dec. 2009, P. Sharma.
314. Problems for which Local Search is Polynomial Time, CR Rao Advanced Institute of Mathematics, Statistics and Computer Science and University of Hyderabad, 30<sup>th</sup> Dec. to 2<sup>nd</sup> Jan. 2010, P. Sharma.
315. Presented a seminar On strong proximality of closed convex subsets on Feb. 25, 2010 at IIT Madras, P. Shunmugaraj.

#### Physics

316. Tunneling evidence of Polaronic carriers in Colossal Magnetoresistive Manganites, Organization: CNRS, Grenoble, 22<sup>nd</sup> June 2009, A.K. Gupta.
317. STM/S study of electronic patterns on graphite surface, Organization: CNRS, Grenoble, 22<sup>nd</sup> June 2009, A.K. Gupta.

318. Scanning Tunneling Microscopy & Spectroscopy: A tool for probing electronic inhomogeneities in correlated systems, Organization: GJ Conference, IIT Kanpur 8<sup>th</sup> Feb 2010, A. K. Gupta.
319. Scanning Probe Microscopy: A versatile tool for local surface properties, Organization: IIT Kanpur (Nano-fab school), 22<sup>nd</sup> March 2010, A.K. Gupta.
320. Tunneling evidence of Polaronic carriers in Colossal Magnetoresistive Manganites, Organization: IISc, Bangalore (Physics Colloquium), 16 Apr 2010, A.K. Gupta.
321. Defect Production in Generalized Quenching, at ICTS Condensed Matter Programme 2009, organized by ICTS, TIFR, Mahabaleswar, 5<sup>th</sup>-23<sup>rd</sup> December, 2009. A. Dutta.
322. Invited lecture series, WE-Heraeus Summer School on Steps in Evolution: 150 years after Darwin, Bremen, Germany, July, 2009. D. Chowdhury.
323. Invited speaker in the symposium on "Navigation and Communication- what we can learn from insects", Platinum Jubilee Meeting of the Indian Academy of Sciences, Bangalore, November, 2009. D. Chowdhury.
324. Invited Speaker, School of Physics, University of Hyderabad, Dec 2009. S. Dhamodaran.
325. Invited Speaker, Department of Physics, Pondicherry University, Dec 2009. S. Dhamodaran.
326. Physics Colloquium, titled Instabilities and novel dynamics in the driven vortex state HRI Allahabad, 25<sup>th</sup> Feb. 2010. S. Banerjee.
327. Invited Talk, titled Instabilities and giant velocity fluctuations in the driven state of vortex matter International conference on Interaction, Instability, Kinetics: Glassiness and Jamming (IITK:GJ), held at IIT Kanpur between 4<sup>th</sup> Feb - 8<sup>th</sup> Feb. 2010 on the occasion of the Golden Jubilee celebration of IIT Kanpur. S. Banerjee.
328. Invited talk, titled Strange magnetic properties of ferromagnetic nanowires at Mahabaleswar, in the ICTS (International center for theoretical studies of Tata Institute of Fundamental Research, Mumbai) organized condensed matter program, 2009 (ICMP09), between 5<sup>th</sup> - 23<sup>rd</sup> Dec. 2009. Talk was on 20<sup>th</sup> Dec. 2009. S. Banerjee.
329. Invited talk at the Dept. of Atomic Energy (DAE) - SSPS (solid state physics symposium), titled Novel large amplitude low frequency velocity fluctuations in the elastic phase of the driven vortex matter, Baroda on 17<sup>th</sup> Dec. 2009, at the Maharaja Sayajirao University of Baroda, Vadodara, India S. Banerjee.
330. Physics Colloquium titled Low frequency, large amplitude vortex velocity fluctuations and novel dynamics of the driven vortex state at Indian Institute of Science (IISc) Bangalore, dated 4<sup>th</sup> Dec. 2009 S. Banerjee.
331. Invited talk on Large amplitude low frequency velocity fluctuations and its evolution with different phases of the driven vortex state at the 12<sup>th</sup>

- International workshop on vortex matter in superconductors, Sept.12-16, 2009 at the Lake Yamanaka, Yamanashi, Japan S. Banerjee.
333. Invited talk on Magneto-optical imaging technique: from superconductors to plasma's at the Condensed Matter Physics Workshop held at IIT Kanpur, India from Feb. 20 - 22<sup>nd</sup>, 2009. S. Banerjee.
  334. Invited talk on Controlling magnetic and superconducting properties at extreme scales in the International symposium on clusters, cluster assemblies and nanomaterials (ISCANM 2009), held at HRI, Allahabad, India from Feb. 9 - 11, 2009 S. Banerjee.
  335. Invited talk on Controlling magnetic and superconducting properties at extreme scales in the Workshop on Magnetic Nanomaterials and their Application (MNTA), at S.N. Bose Center, Kolkata, from Jan. 27-28, 2009 S. Banerjee.
  336. Kawfest, IPR Gandhinagar, Jan. 2010, M.K. Verma.
  337. Invited talk: Frontiers in Dynamo Theory, IHP Paris, April 2009, M.K. Verma.
  338. Invited talk: Dynamo Transitions, presented in Matscience, Chennai on March 29, 2010, M.K. Verma.
  339. Invited talk: Instabilities and Turbulence in Rayleigh Benard Convection, presented in JNCSAR, Bangalore on 1 April 2010, M.K. Verma.
  340. Lectures delivered at workshop held (March 21-29, 2010) at Himachal Pradesh University, Shimla on Density Functional Theory, M.K. Harbola.
  341. Invited talk Neutrinos in Magnetic fields -Aryabhatta Research Institute of Observational Sciences - June 2009. Kaushik Bhattacharya.
  342. Invited Talk, in Dr. N.L. Singh Memorial Lecture Series at BHU, Department of Physics, 26<sup>th</sup> November, 2009, Asima Pradhan.
  343. Invited Talk, in Continuing Education Program, Smart Materials, DMSRDE, Kanpur, December 2, 2009, Asima Pradhan.
  344. Invited Talk in the Conference Discussion meeting on statistical mechanics and condensed matter physics at IIT Guwahati during 31<sup>st</sup> October-1<sup>st</sup> November, Sutapa Mukherji.
  345. Invited Talk, titled Quenching dynamics of quantum spin chains: defect generation and entropy production International conference on Interaction, Instability, Kinetics: Glassiness and Jamming (IITK:GJ), held at IIT Kanpur between 4<sup>th</sup> Feb - 8<sup>th</sup> Feb. 2010 on the occasion of the Golden Jubilee celebration of IIT Kanpur. A. Dutta.

## OTHER ACTIVITIES

### TECHNOLOGY DEVELOPED

#### Aerospace

1. Design of a novel micro-combustor, D. P. Mishra.

#### Biological Science and Bio-engineering

2. Development of neo-cartilage for osteoarthritis, Ashok Kumar.
3. Development of stem cell separation technology using supermacroporous cryogels (process and product ready for commercialization), Ashok Kumar.
4. Development of Bioartificial Liver Support using Cryogel bioreactor (preclinical testing), Ashok Kumar.
5. Development of cigarette filter accessory using supermacroporous cryogel (process and product under commercial development), Ashok Kumar.
6. Development of metal chelate affinity precipitation for protein separation, Ashok Kumar.
7. Development of disposable cryogel bioreactor for the production of therapeutics, Ashok Kumar.
8. Development of the cryogel filter for the depletion of leukocytes from blood, Ashok Kumar.
9. Antiseptic wound dressing bandage using PVP-I macroporous sheet, Ashok Kumar.
10. Polymeric macroporous scaffolds for skin tissue engineering, Ashok Kumar.

#### Chemical

11. Organic semiconductor based flexible temperature sensor (technology transferred to Intellectual Ventures), S. Panda.
12. White light emitting lanthanide-doped nanomaterials for solid-state light applications, Sri Sivakumar.
13. Nanoparticles-loaded nano/micro polymer capsules for bioimaging and drug delivery applications, Sri Sivakumar.

#### Civil

14. Developed and field tested a 15 LPM PM2.5 air sampler, Tarun Gupta.

### Electrical

15. A 30 kW power electronic interface for coupling rooftop solar panels to the grid, with Maximum Power Point Tracking incorporated. This is already commissioned and functional at WBREDA office at Salt Lake, Kolkata, Sensarma P.
16. Brihaspati-2: SCORM packager and SCORM runtime, Singh Y.N.
17. Paper Touch Pad, Paper Keypad, Venkatesh K.S.

### Mechanical

18. Pipe Crawling Robot with a novel Smart Sensor, B. Bhattacharya.
19. Power-pro- a novel energy harvesting device for low-power electronic systems jointly with MDes Student of Design Programme, B. Bhattacharya.
20. An Active Infusion Pump jointly with MDes student of Design Programme, B. Bhattacharya.
21. 2-D Solar Tracker Developed as a PTB, M.K. Das.
22. MEMS based bacterial counter, Autonomous Vehicle Technology, S. Bhattacharya.
23. Double Sided Incremental Forming Machine is under Development, N. V. Reddy.
24. Bilevel multi-objective optimization algorithm, K. Deb.
25. Multi-modal optimization using multi-objective optimization, K. Deb.

### Chemistry

26. A fast method to count and quantitate bacteria - a patent filed in February 2010, R. Gurunath.
27. Drug free polymer nanocoatings on coronary stents - Product and Process development, S.S. Manoharan.
28. Low cost nano carbon based water filter for drinking water has now been under field trial, S. Sarkar.

### Physics

29. A novel focused ion beam system capable of generating multielement focused ion beams (ME-FIB), Sudeep Bhattacharjee.

## SOFTWARE DEVELOPED

### Biological Science and Bio-engineering

1. A four dimensional reconstruction and characterization system for biomedical images, Anupam Pal.

### Chemical

2. Software Tool for Design of Small Interfering RNA, S. Garg.

### Mechanical

2. A. New Damage Detection Software for Composite Laminate using Damage Indexing, B. Bhattacharya.
3. LES Solver for Turbomachinery Application (LES-TURBO), S. Sarkar.
4. Tool Path Planning for Multistage Single Point Incremental Forming, further work is in progress, N. V. Reddy.

### Chemistry

5. Developed constraint density functional theory codes for ab initio molecular dynamics code CPMD, Nisanth N. Nair.

## INDUSTRIES VISITED

### Aerospace

1. Indian Airforce Station, Chakeri, took students for industrial tour, 1 day, R. Kitey.

### Biological Science and Bio-engineering

2. NFTDC Hyderabad- November 21<sup>st</sup>, 2009, Ashok Kumar.

### Chemical

3. Yeungnam University, South Korea on sabbatical leave, July 2009-July 2010, A. Sharma.
4. BITS Mesra, Department of polymer Engineering, to discuss collaborative research, 29<sup>th</sup> January 2010, Singh JK.
5. UIUC, Beckmann Institute, to discuss collaborative research, July 1-2, 2009, Singh JK.

6. University of California, Irvine, to attend Indo-US meeting, June 2009, Singh JK
7. Prof. Kevin Shakes Sheff, Department of Pharmacy, University of Nottingham, UK, Sri Sivakumar.
8. Prof. Rashid Bashir, University of Illinois, Urbana Champaign, USA, Sri Sivakumar.
9. Prof. Ragina Ragan, University of California, Irvine, USA, Sri Sivakumar.

#### Civil

10. Visited University of Molise, Italy Ghosh P.
11. Visited IITD for research collaboration in the field of climate change and atmospheric chemistry, Gupta Tarun.
12. Visiting Professor, School of Civil, Environmental, and Mining Engineering, University of Adelaide, Australia, May 2009-Jul 2009, Jain, A.
13. NASA Goddard Space Flight Center, Greenbelt, MD, USA, Senior Research Fellow, August 2009-July 2010, Tripathi S. N.
14. Space Application Center, Ahmedabad, Megha Tropiques CAL/VAL Finalisation, 22 May, 2009, Tripathi S. N.
15. Indian Institute of Tropical Meteorology, Pune, National Steering Committee for CAIPEX Program, 13-15 May, 2009, Tripathi S. N.

#### Electrical

16. DEAL Dehradun, October 2009, Banerjee Adrish.
17. Politecnico di Torino under ERASMUS-MUNDUS visiting professor scholarship, May-June 2009, Banerjee Adrish.
18. Coordinator of 9 member Indian delegation that visited National Tsing Hua University, Taiwan, during November 2-3, 2009 to promote Research Collaboration between India and Taiwan in the area of VLSI Design. A Joint workshop sponsored by DST and its Taiwanese counterpart NSC was conducted in Taiwan during the visit, Qureshi S.
19. Visiting Professor in the ECE Department at Mississippi State University, USA until July 2009 (for one year) on sabbatical leave from IIT Kanpur, Srivastava S.C.
20. IRDE Dehradun, Discussions for Proposals for Collaboration. 09-13/01/2010, Venkatesh K.S.

#### Industrial Management & Engineering

21. Fiskars Corporation, Hameentie, Finland, J Chatterjee
22. Kone Corporation, Espoo, Finland, J Chatterjee
23. Kone Cranes, Koneenkatu, Finland, J Chatterjee

24. Metso Corporation, Finland, J Chatterjee
25. Design Factory, Aalto University, Finland, J Chatterjee
26. Helsinki School of Economics, Finland, J Chatterjee
27. Technical University, Ilmenau, Germany, J Chatterjee
28. Maastricht University, The Netherlands, J Chatterjee
29. USM Malaysia, INTEL, MOTROLA, ALTERA, Agilant, AMD all at Penang, MIT Boston USA, AK Mittal.
30. Hitachi, Shenshei Bank, Tokyo Power, J R East Shinkasen Workshop, Mitsui Chemicals all in Japan; AK Mittal.

#### Materials Science and Engineering

10. Fomento Resources, (an iron ore mining company in Goa), to give a presentation on Alternative Processes for Iron-making, December 15, 2009, David G. C. Robertson.

#### Mechanical

31. University of Sheffield, UK September 2009 (14 days), B. Bhattacharya.
32. Waseda University, Japan, March 2010 (10 days), B. Bhattacharya.
33. NAL, HAL, S. Sarkar.
34. Pennsylvania State University, Research discussion, May 3, 2009, Sovan Das
35. Pennsylvania State University, Research discussion, October 30-31, 2009, Sovan Das
36. Cornell University, Research Discussion, November 1-2, 2009, Sovan Das
37. University of Pennsylvania, Research Discussion, November 5, 2009, Sovan Das.
38. IGCAR, Kalpakkam in March, 2010. Part of fund project, Ishan Sharma.
39. IGCAR, Kalpakkam Collaborative research project< March 12-14 2010, Pankaj Wahi.
40. Jadavpur University, Collaborative research project, March 6, 2010, Pankaj Wahi.
41. IIT-Kharagpur, Collaborative research project, March 3-5, 2010, Pankaj Wahi.
42. University of Aberdeen, Collaborative research project, 15 June 25 - July, 2009, Pankaj Wahi.
43. VSSC, Trivandrum, Lunar Rover Review Meeting, 22 Feb. 2010, Anjali V. Kulkarni.
44. DMRL, Hyderabad, January 8 -11, 2010. To finalize the project proposal (Proposal on incremental forming of Ti sheets is submitted and review is completed), N. V. Reddy.



45. Airbus company, Nantes, France (April 2009), toured the facility, K. Deb.
46. General Motors and India Science Lab, Bangalore (July 2009), delivered a lecture and discussed possible project ideas, K. Deb.
47. Volvo Powertrain, Skovde and Goteborg, Sweden (December 2009), delivered a tutorial, addressed top label managers and toured the company, K. Deb.

#### Chemistry

48. Feb-Mar 2010, INSA-JSPS sponsored Visiting professor, Osaka University, Osaka, Japan. J. N. Moorthy.

#### Mathematics and Statistics

49. Invited Professor, Institute of Logic and Cognition (ILC), Sun Yat-Sen University, Guangzhou, China, May-July, 2009, Mohua Banerjee
50. University of Iowa, under IUSSTF Fellowship for Research Collaboration, May-July 2009, S. Dutta.
51. Visited Division of Theoretical Statistics and Mathematics, Indian Statistical Institute, Kolkata, during the period June 8th -July 3rd 2009, S.K. Ray.
52. Visited Institute of Statistics, Ludwig Maximilians University, Munich, Germany in 2009 for three months, Shalabh.

#### Physics

53. Abdus Salam International Center for Theoretical Physics, Purpose: Academic Collaboration, Period: 8<sup>th</sup> June-20<sup>th</sup> July, A. Dutta.

### **PATENTS**

#### Aerospace

1. Heat Recuperating Microcombustor, IPA No: 2257/DEL/2009, D P Mishra, and S J Swarup.
2. Low emission energy efficient gas burner, IPA No: 2347/DEL/2009, D. P. Mishra.

#### Biological Science and Bio-engineering

3. Antiseptic polymeric macroporous hydrogel based thin sheets containing iodine as wound dressing materials (Patent filed, 2009), Ashok Kumar and Era Jain.

4. Polymer Matrix Scaffold and Process for Preparation Thereof (Patent filed; IPA 3948; 2009), Ashok Kumar and Anuj Tripathi.
5. Image-based structural characterization system for fibrous materials, under filing by Intellectual Ventures, S. G. Pandya, D. S. Katti, A. Pal.
6. A four dimensional reconstruction and characterization system for biomedical images, under filing by Intellectual Ventures, A. Pal, S. Banerjee, S. Dixit.

#### Chemical

7. Process for Synthesis of Sonicated Hierarchal Web of Carbon Micro-nano Fiber and applications Thereof Indian Patent File Number: DEL/1157/2009. Inventors: N. Verma and A. Sharma.
8. A process for fabrication of an electrolyte insulator semiconductor device having multistep reservoir, 219/DEL/2010, 01-02-2010, Indian Patent, S. Panda and A. Agarwal.

#### Electrical

9. Static Camera Data Compression: 2438/DEL/2009 filing date: 26.11.09. Indian Patent Office, Venkatesh K. S.

#### Materials Science and Engineering

10. US Patent No. 7,618,582, Continuous steel production and apparatus, Awarded by the US Patent Office, November 17, 2009. Application No. 11/381,829, Date of Application 05.07.06, List of inventors: K. D. Peaslee, J. J. Peter, B. G. Thomas and L. Zhang, David G. C Robertson.
11. Tubular Microwave Sintering Furnace with Inert and Reducing Gas Flushing for Sintering Metallic Samples, (BHEL) (1147/DEL/2006 Filing Date: 9.5.2006, Publication Date: 23.11.2007), A. Upadhyaya (IIT/K) and G. Swaminathan.
12. Rare-Earth Oxide Dispersed Sintered Stainless Steels (REO-Steels), (1224/DEL/2006 Filing Date: 18.5.2006; Publication Date: 23.11.2007), A. Upadhyaya, R. Balasubramaniam, and J. Shankar.

#### Mechanical

13. Universal rotational abrasive flow finishing, J. Ramkumar, S. Ravishankar and V.K. Jain.

14. Integrated Di-electrophoresis based connection of pathogenic bacteria, Filed for Indian patent, April, 2010, S. Bhattacharya.

#### Chemistry

15. One Indian Patent filed on Removal of Mercury, P. K. Bharadwaj
16. Drug free Polymer composite Nano coated coronary stent systems (Indian patent file no: 1197/DEL/June 2009), S. Sundar Manoharan and T R Muralidharan.

#### Physics

17. Filed for a Patent with Intellectual Ventures; A non-destructive damage detecting instrument which using an alternating or direct current mode of operation sensitively images damage induced changes in the path of currents flowing through the material. Satyajit S. Banerjee, Shyam Mohan, Jaivardhan Sinha.

### **AWARDS AND HONOURS**

#### Aerospace

1. Batch of 1970 Research Fellow, IIT Kanpur (Oct. 2009 onwards), A. Kushari
2. Subject editor, International Journal of Hydrogen Energy, Elsevier Publisher, USA, 2009, D. P. Mishra.
3. Editor, 8<sup>th</sup> Asia-Pacific Conference on Combustion, 2010, D. P. Mishra.

#### Biological Science and Bio-engineering

4. Received DBT - National Bioscience Award for the year 2009, Balaji Prakash.
5. Task Force committee member of Silk Biotechnology, DBT, India, Ashok Kumar.
6. JSPS Visiting Professor Fellowship, Ashok Kumar.
7. Invitation for Chief-Editor for Frontiers of Biotechnology and Bioengineering Journal, Ashok Kumar.
8. Young Investigator Award by Asian Neurogastroenterology and Motility Association, April 2009, Anupam Pal.

#### Chemical

9. Homi J. Bhabha Award for Applied Sciences, University Grants Commission (UGC) National Hari Om Ashram Trust Awards (2007). Award for the year 2007 received in 2010, to Prof. A. Sharma.
10. L & T Chair Professor of Chemical Engineering, IIT Bombay (Dec 2009 – present), to Prof. S. K. Gupta.
11. Elected Fellow, The National Academy of Sciences, India (since Dec. 2009), to Prof. D. Kunzru.
12. Elected Fellow, Indian National Academy of Engineering, New Delhi, to Prof. S.K. Gupta. (2009)
13. Amar Dye Chem Award, Indian Institute of Chemical Engineers (IChE) (2009), to Dr. Y.M. Joshi.
14. Indian National Academy of Engineering (INAE) Young Engineer Award, 2009, to Dr. J.K. Singh.

Student awards:

15. M H Shukla 2nd Prize, IChE for the best Technical Paper presented at CHEMCON 09 to Mr. S. Kumar and Mr. S.S. Muduli.
16. Ambuja's young researcher's award for doing post graduate studies in chemical engineering after GATE presented at CHEMCON 09 to Mr. Sunil Kumar and Mr. G. Srivardhan.
17. First prize for poster presentation V<sup>th</sup> Rheology of complex fluids symposium, IIT Madras, January 2010 to Ms. A. Shahin.
18. Best Poster Award at the International Symposium of Hydrogen and Energy Storage as a part of the Energy Conclave 2010 at IITK to Mr. C.S. Sharma
19. Best IChE Chemical Weekly Award for Best Research Paper in a High Impact Factor International Journal by an Undergraduate Student for the year 2009 to Mr. A. Sinha

Civil

20. Recipient of Batch of 1970 Research Fellowship, IIT Kanpur, from October 01, 2009 for three years by Das A.
21. Awarded Endeavour Executive Award 2009 by Ministry of Education, Australia, Jain, Ashu.
22. Ghosh, P. Senate Recommendation for Best Teaching by IIT Kanpur, 2009
23. INAE Young Engineer Award (2009) by Gupta, Tarun, .
24. INDO-US Frontiers of Science Symposium Joint Research Award (2009) by Gupta, Tarun,.
25. 3<sup>rd</sup> prize for poster, IASTA, Darjeeling (2010) by Gupta, Tarun.
26. 1<sup>st</sup> consolation prize for poster, IASTA, Darjeeling (2010) by Gupta, Tarun.
27. 3<sup>rd</sup> prize for Poster, International Conference on Environmental Health and

- Technology, IITK (2010) by Gupta, Tarun.
28. 3<sup>rd</sup> prize for Poster, Energy Conclave, IITK (2010) by Gupta, Tarun.
  29. Best paper award from Indian Society of Remote Sensing (2009) by Sinha, Rajiv.
  30. NASI-Scopus Young Scientist 2009 Awarded by National Academy of Sciences India and Elsevier Pvt. Ltd. Asia-Pacific by Tripathi, S.N.
  31. NASA Senior Fellowship, National Aeronautics and Space Administration, USA by Tripathi, S.N.
  32. Sir M Visvesaraya Fellowship, IIT Kanpur by Tripathi, S.N.

#### Computer Science & Engineering

33. G B Birla Award for Scientific Research, Birla Foundation, Manindra Agrawal.
34. P C Mahanalogis Birth Centenary Award, Indian Science Congress, Manindra Agrawal.
35. Rajib Goyal Prize, Kurukshetra University, Manindra Agrawal.
36. Young Engineer Award for the year 2009 by Indian National Academy of Engineers for contribution in the field of design and analysis of algorithms, Surender Baswana.

#### Electrical

37. Paper entitled Noninvasive Procedure for Measuring the Complex Permittivity of Resins, Catalysts, and Other Liquids Using a Partially Filled Rectangular Waveguide Structure, which appeared in the February 2009 issue of IEEE Transactions on Microwave Theory and Techniques, received the CST (<http://www.cst.com>) University Publication Award 2009, Akhtar Jaleel.
38. The Computer Simulation Technology AG (CST) is a Germany based company, which is the market leader in the area of 3-D electromagnetic field simulation. The CST University publication award is given each year to few selected researchers for their original work in the field of 3-D electromagnetic field simulation, where they have made skilful usage of CST software features, Akhtar Jaleel.
39. The following paper coauthored by Dr R.S. Anand got the excellent research work certificate from the director CDRI, Lucknow: Atul Goel, Sumit Chaurasia, Manish Dixit, Vijay Kumar, Satey Prakash, Bijayalaxmi Jena, Jai K. Verma, Mayank Jain, R. S. Anand and S. Sundar, Donor-acceptor 9-uncapped fluorenes and fluorenones as stable blue light emitters, Organic Letters, Vol.11, No.6, 1289-1292, 2009, Anand R.S.
40. Young Engineer Award, Institute of Engineers (IEI), India in area of Electronics & Communications, 2009, Banerjee Adrish.

41. Microsoft Research India Outstanding Young Faculty Award, 2009, Banerjee Adrish
42. Certificate of Merit from Institution of Engineers (India) for the paper entitled Hardware Implementation of Modified SVM Technique for Soft-switching Converter, December 11, 2009. The paper is co-authored by S. Behera, S. P. Das and S. R. Doradla and appeared in IE (I) Journal during 2008-2009.
43. Best student poster award in Photovoltaic section: Ellipsometric studies on CuPc/C60 heterojunction for solar cell applications, International Workshop on Physics of Semiconductor Devices (IWPSD)-2009, New Delhi, India, Debjit Datta, Anirban Bagui, S. Sundar K. Iyer and Satyendra Kumar.
44. Has been awarded P.K. Kelkar Chair Professor position (IIT Kanpur endowed chair position) for 3 years since Oct. 2009, Srivastava S.C.
45. Has been nominated as Member of the Central Advisory Committee of the Central Electricity Regulatory Commission (CERC) for the year 2010, Srivastava S.C.
46. K. Seethalekshmi, a Ph.D. student of our department working with Prof. SC Srivastava and Prof. S.N.Singh has been selected for the 2010 Clayton Griffin Student Paper Award in the Georgia Tech Protective Relaying Conference. The conference will be held at Atlanta, USA during May 5-7, 2010. This was a global student paper contest and carries a cash award of USD 1000. The title of her paper is SVM based Scheme to Prevent Distance Relay Mal-operation under Power Swing and Voltage Instability.

#### Industrial Management & Engineering

47. The Best Paper Award, AGCETI 2010, N K Sharma and Manu Kanchan.
48. Judged as Outstanding Management Researcher, at AIMS-7 conference, Dec 20-22, 2009; held at IIM Bangalore, India. Award was given by Prof. MR Rao (ex director IIM Bangalore and ex Dean ISB Hyderabad), R R K Sharma.

#### Materials Science and Engineering

49. R.L. Thakur Memorial Award 2009, awarded by Indian Ceramics Society on Dec. 11th 2009 at Trivandrum India, Kantesh Balani.
50. Young Scientist Award in Materials Science division, awarded by Indian Science Congress Association on Jan. 5<sup>th</sup> 2010 at Trivandrum India, Kantesh Balani.
51. GD Birla Gold medal of the Indian Institute of Metals, 2009, Dipak Mazumdar.

52. Continues to be a member of the Editorial Board of the journal Powder Metallurgy, published by the Institute of Materials, Minerals and Mining, London, R. K. Dube.
53. Lecturer Award, awarded for the Academic Year 2010/11, by AIST, the Association for Iron and Steel Technology, USA, D. G. C. Robertson, J. F. Elliott.
54. Indian Institute of Mineral Engineers Award for Best Publication on mineral beneficiation from India in any International Journal for the paper entitled Study of separation features in floatex density separator for cleaning fine coal published in International Journal of Mineral Processing, Vol. 86, 2008, 40-49, S.P. Mehrotra.
55. Metallurgist of the Year Award for the year 2009 from the Ministry of Steels November 2009, A. Upadhyaya.
56. Selected as P.K. Kelkar Research Fellow (Class of 1982 Batch), October 2009, A. Upadhyaya.
57. Australia India Science and Technology Research Award by Australian Academy of Technological Sciences and Engineering, 2009, A. Garg.

#### Student Accolades

58. Best poster award in the Materials Science category won by Ph.D student to Mr. Soumitro. Mahanty, Electron Microscopy Study on the Surface Modification of Al-SiCP MMC after Pulsed Laser Irradiation, at International Conference on Advances in Electron Microscopy and Related Techniques and XXXI Annual Meeting of EMSI, BARC, Mumbai, India, March 8-10, 2010, Co-author/Thesis supervisor: Dr. Gouthama.
59. Ms Priyanka Dash's M.Tech. thesis titled Effect of Sintering Temperature on Microstructural Evolution and Tribological Properties of Cu-Pb Alloys (supervisor: Dr. A. Upadhyaya) was awarded Professor B.D. Upadhyaya Memorial Gold Medal in Physical Metallurgy & Materials Processing, May 2009.
60. B.Tech. Project Thesis by Mr. Shobit Misra on PM Processing of High Copper Dental Amalgams (supervisor: Dr. A. Upadhyaya) was adjudged for the Best Departmental B.Tech. Project, May 2009.

#### Mechanical

61. IEL, Young engineer's award in Mechanical Engineering for the year 2009, S. Bhattacharya.
62. Certificate of Outstanding Leadership by Boeing Corporation for the year 2009, S. Bhattacharya.

63. Prof. K. N. Seetharamu Young Researcher Medal and Prize from the Indian Heat and Mass Transfer Society, 2010, S. Bhattacharya.
64. Invited to become a member of the Editorial Board of a new quarterly journal titled 'Heat Pipe Science and Technology: An International Journal' launched by Begell House, Inc. USA, S. Bhattacharya.

#### Humanities and Social Sciences

65. Our Common Future Fellowship (2010), Volkswagen Stiftung, Germany. - Bhushan, B.
66. Director's Commendation Letters for Excellence in Teaching, 2009 - Suchitra Mathur.
67. Director's commendation for excellent teaching based on SRS. The course taught was PHI 447: Ethics & Society, Semester 1 2009-10, Semester 1 2009-10. - Vineet Sahu.

#### Chemistry

68. Conference Chair, Third Asian Conference on Coordination Chemistry .
69. J. C. Bose National Fellow, DST, New Delhi, India, P. K. Bharadwaj.
70. Elected to the Academy of the Developing World, FTWAS, Trieste, Italy, V. Chandrasekhar.
71. Best Poster Award at the SPIE Photonics West 2010 at San Jose, CA on the poster: Spatio-temporal Control in Multiphoton Fluorescence Imaging, A.K. De, D. Roy and D. Goswami.
72. Best Poster Award for: Encoding molecular fragments with chirped femtosecond pulses for quantum information processing, 9<sup>th</sup> Asian Conference on Quantum Information Science (AQIS '09) organized by the Nanjing University of Posts and Telecommunication (NUPT), Nanjing, China, 26-29 Aug. 2009, D. Goswami.
73. Guide for the Best M.Sc. Project (Mr. V. Tewari, Dept. of Chemistry IITK, May 2009), D. Goswami.
74. International Council Member, Optical Society of America, USA, Jan.2010-Dec.2012, D. Goswami.
75. Associate Editor, Global Journal of Analytical Chemistry, Simplex Academic Publishers, 2010 onwards (3-year term), D. Goswami.
76. DST - Lockheed Martin Innovation Growth Program: Gold Medal For Developing Nanocoated, Coronary Stent, 2009, S. S. Manoharan.
77. Elected as fellow of the Indian Academy of Sciences (FASc), Bangalore, J. N. Moorthy.
78. Awarded Bronze Medal by Chemical Research Society of India (CRSI), J. N. Moorthy.



79. Member, Advisory Board of Dalton Transactions (2010 - 2011), Royal Society of Chemistry, UK, R. N. Mukherjee.
80. Fellow, National Academy of Sciences, India, 2010, S. Verma.
81. CDRI Award for Excellence in Drug Research, 2009, S. Verma.
82. Rajib Goyal Young Scientist Prize (2006) in Chemistry, 2009, S. Verma.
83. P. K. Kelkar Research Fellow in 2009 from IIT Kanpur, S. P. Rath.
84. Elected as a Fellow, Indian National Science Academy, New Delhi, Y. D. Vankar.

#### Mathematics and Statistics

85. Appointed Member, Editorial Board, Transactions on Rough Sets, Journal subline of the Lecture Notes in Computer Science (LNCS), Springer, Mohua Banerjee.

#### Physics

86. P. K. Kelkar Fellowship, Awarded by: IIT Kanpur, A.K. Gupta.
87. Buti Foundation Award and the Endeavour Research Award of the Australian Government, Sudeep Bhattacharjee.

### CONTINUING EDUCATION ACTIVITIES

#### Civil

1. Co-organized (with Dr. Avinash Agarwal, ME) a short-term Course on Diesel Particulate and NO<sub>x</sub> Emissions, from 14<sup>th</sup> -18<sup>th</sup> Feb, 2010. Sponsored by Quality Improvement Program, MHRD, Government of India. The school was attended by 54 participants with equal number from industry and academia by Gupta, Tarun.

#### Electrical

2. Co-organized 5 days Short Course for DoorDarshan Employees on RF and Microwaves at IIT Kanpur during Nov. 30 to Dec. 4 2009. Approximately 20 participants attended the courses from the level of Deputy Director, DoorDarshan to level of Senior Engineer, DoorDarshan, Akhtar, Jaleel and Srivastava K.V.

3. Co-organized short course (Self-financed) on Cellular Technologies: 3G and Beyond at I.I.T. Kanpur, 26th-28th December 2009 and delivered lectures on OFDM and LTE, Banerjee Adrish, Chaturvedi AK, Jaganatham Aditya
4. Gave lectures on OFDM and LTE at a workshop on Wireless Circuits and Systems jointly organized by I.I.T. Kanpur and USM Malaysia at Penang, Malaysia, December 2009 Banerjee Adrish, Chaturvedi AK, Jaganatham Aditya
5. Organic Solar Cells at the 6-14 July summer short course on Organic Electronics and Photovoltaic Systems, IIT Kanpur, 12<sup>th</sup> July, 2009. M.Tech. and PhD students as well as research scientists from industry. Course was supported by project funds, Iyer S. S. K.
6. Co-Convenor of the DST-SERC Workshop on 'Smart Energy Delivery System' held as part of Energy Conclave at IIT Kanpur on 15<sup>th</sup> Jan. 2010, Iyer S. S. K.
7. Organized (Convenor) of DST-SERC Workshop on Smart Energy Delivery Systems at IIT Kanpur on January 15, 2010, Sensarma P.
8. Organised a Course at I. I. T. Kanpur on Cadence Tool Training during June 29 - July 4, 2009 for teachers of N.I.Ts participating in SMDP-II project sponsored by MCIT, Qureshi S.
9. Attended the DST-EPSRC sponsored 2<sup>nd</sup> Indo-UK Workshop on Next Generation Systems and Services, in IIT Madras, on 1-2 Feb 2010, Vasudevan K.

#### Industrial Management & Engineering

10. Conducted a one day self financed QIP course on MRP Systems (3 OCT 2009); Venue: IIT Kanpur 208016, R R K Sharma.
11. Conducted CEP under BSNL-IITK Programme for BSNL Senior Managers on Management of Technology, 20<sup>th</sup> - 22<sup>nd</sup> November, 2009, J Chatterjee.
12. Taught Product Design & New Product Management to VLMP 2009-2010 Batch, July-August 2009, J Chatterjee.
13. Quantitative Finance Workshop jointly conducted by (i) IGIDR, Mumbai, INDIA, (ii) Indian Institute of Technology Kanpur, INDIA and (iii) Rensselaer Polytechnic Institute, USA, at IGIDR, Mumbai, INDIA, 17<sup>th</sup> - 20<sup>th</sup> December, 2009, PI, Raghu Nandan Sengupta.
14. Workshop on Record management, 2-13<sup>th</sup> August 2009 IIT Kanpur; AK Mittal.
15. Management Development Programme for DoorDarshan officer; May 23- June 07, 2009; AK Mittal.
16. Energy Conclave 2010, 8-15 Jan. 2010 (Chair of the conclave); Anoop Singh.
17. International Symposium on New Paradigms for Energy Policy and Regulation, Jan. 8, 2010; Anoop Singh.
18. 2<sup>nd</sup> Capacity Building Program for Staff of Electricity Regulatory Commissions from August 3-8, 2009; Anoop Singh.

### Materials Science and Engineering

19. Recent Trends in Surface Engineering (Self Financed) IIT Kanpur, Feb. 25-28, 2010 (planned).
20. Processing, Characterization, and Properties of Advanced Engineering Materials (QIP course) IIT Kanpur, Feb. 24-28, 2010 (planned).
21. Organic Electronics and Photovoltaic Systems (Luminescence), July 6-14, 2009, IIT Kanpur.

### Mechanical

22. Bhaskar Dasgupta, Delivered a course on "Mathematical Methods in Engg and Science" as part of the NPTEL Phase II, awaiting review.
23. J. Ramkumar, Workshop on Micro and Nano fabrication, March 22-26, 2010 at IIT Kanpur.
24. P.M. Dixit, Three-Dimensional Finite Element Formulation of Hot Rolling Process, Sponsored by Industry, IIT Kanpur, February 1-26, 2010, Tata Steel Engineers with M.Tech. Degree from IITs.

### Humanities and Social Sciences

22. Assisting Chhattisgarh Education Resource Centre, SCERT Chhattisgarh and the NCERT in the preparation of textbooks for teacher training, Amman Madan.
23. Lectured in Certificate Programme on Foundations of Education, Digantar, Jaipur, 1 - 12 July 2009. Participants were middle level staff of several NGOS working on education, Amman Madan.
24. Communication Skills workshop for L. K. Singhanian Education Centre, G Rajasthan, from 7 - 11 July 2009, Suchitra Mathur & Mini Chandran.
25. Organised a three-week CDET funded workshop on Science Fiction (SF) Writing which had 16 participants from all over the country. As part of the workshop, I invited Prof. Jayant Narlikar to IIT Kanpur as a guest lecturer for this workshop; he also gave an Institute lecture while he was here for the SF workshop, Suchitra Mathur.
26. Conducted Workshops: For CA trainees of Institute of Chartered Accountants of India, Kanpur- Team Building: One session in Aug 2009, One session in January 2010, Lilavati Krishnan.
27. Course Development for NPTEL (Microeconomics: Web and Net) - Vimal Kumar.

28. Consortium Meeting (LUVIT) of the Erasmus Mundus External Cooperation Window (EMECW) India -Lot 13 and Bologna Process Workshop, during 8<sup>th</sup> - 10<sup>th</sup> February, 2010, in Lund, Sweden, P. Murali Prasad.
29. Consortium Meeting (WILLPOWER) of the Erasmus Mundus External Cooperation Window (EMECW) India -Lot 13a, during 14<sup>th</sup> - 15<sup>th</sup> December 2009, in Nantes, France, P. Murali Prasad.
30. A workshop on Applied Bologna and Steering Committee Meeting (LUVIT) of the Erasmus Mundus External Cooperation Window (EMECW) India -Lot 13, during 30<sup>th</sup> November- 4<sup>th</sup> December, 2009 in Delhi, India - P. Murali Prasad
31. EMECW (WILLPOWER) Coordination Committee Meeting during 22- 23 September, 2009, in Delhi, India, P. Murali Prasad.
32. Collaboration Between IIT Kanpur and University of Applied Sciences, Darmstadt Germany, in International Collaborations, Directons, Vol.10 No.2 2009, pp. 99-104, P. Murali Prasad.

#### Chemistry

33. Taught CHM-101 course for IIT Rajasthan in 2009-10 1<sup>st</sup> semester as a theory tutor and laboratory instructor, M. K. Ghorai.
34. Developed a web site for the students to enable information and communication technology in teaching of web courses in physics and chemistry (sponsored by MHRD). The web site is [www.ictwiki.iitk.ernet.in](http://www.ictwiki.iitk.ernet.in), R. Gurunath.

#### Mathematics and Statistics

33. Taught summer course on Rough Set Theory, Institute of Logic and Cognition (ILC), Sun Yat-Sen University, Guangzhou, China, May-July, 2009; 15 attendees undergraduate and graduate students, and faculty, Mohua Banerjee.
34. Delivered lectures on Modal Logic, Rough Sets and Rough Logics, at the MHRD/AICTE Winter School on Logic and Applications of Logic (LAAL 2009), IIT Kharagpur, December 7-18, 2009; 20 participants - graduate students, researchers and participants from industry, Mohua Banerjee.
35. Organized Pre-conference Workshop on Foundations of Rough Set Theory, prior to the 12<sup>th</sup> International Conference on Rough Sets, Fuzzy Sets, Data Mining & Granular Computing (RSFDGrC 2009), December 15, 2009, Delhi; 5 invited speakers, 40 participants - graduate students, researchers and participants from industry, Mohua Banerjee.
36. Coordinator, Workshop on Relational Structures in Reasoning with Incomplete Information, as part of Third Indian School on Logic & its Applications (ISLA 2010), January 19-22, 2010, University of Hyderabad; 2 invited speakers, about 40 participants - graduate students and researchers, Mohua Banerjee.

## Physics

38. Lectures on solid state physics to Chattisgarh students from the e-classroom at IIT Kanpur under the CHIPS programme, M. K. Harbola.

## **PARTICIPATION IN HIGH LEVEL INDUSTRY ACADEMIA INDUSTRY INTERACTION PROGRAMME DURING SUMMER**

### Aerospace

1. TIFAC-CORE, Chennai, June 2009, A. K. Ghosh.
2. Two times visited Birla Institute of Technology, Mesra (Ranchi) (August and October 2009) for holding Discussion on Modification of existing Syllabus for Associate Membership Examination in Aerospace Engineering under the auspices of Institution of Engineers, India, Kunal Ghosh.

### Humanities and Social Sciences

3. Attended a meeting with Dr. Amarjit Singh, Executive Director, Jansankhya Sthirata Kosh (JSK), National Population Stabilisation Fund, New Delhi (Website:www.jsk.gov.in) and other experts on how to stabilize population growth in India, as advisor to JSK, 16 October 2009, A.K. Sharma
4. Presented proposals on evaluation and monitoring of ABL method in primary education, Ministry of Education, Madhya Pradesh, Bhopal, 30 November 2009, Rita Singh and A. K. Sharma.
5. Conducted survey and submitted report for the NGO Eklavya, Madhya Pradesh on the academic achievement levels of children in government schools of a tribal belt in district Betul, Madhya Pradesh, Amman Madan.

### Chemistry

6. Visited National University of Singapore, Nano Science Center, July 2009, S. Sundar Manoharan.
7. Visited Prof. Dominik Marx, Ruhr-Universitaet Bochum, Germany, Nisanth N. Nair.

## ANY OTHER IMPORTANT ACTIVITY NOT SPECIFIED IN ABOVE COLUMNS

### Aerospace

1. Established a new experimental laboratory (with funding from DST) for the design, development and testing of autonomous mini helicopter, in the Department of Aerospace Engineering, IIT Kanpur. This lab is the only experimental lab on helicopters in India, Venkatesan C.
2. Member of Selection Committees for faculty at IIT's, Venkatesan C.
3. Expert Member, Selection Committee for Common-wealth scholarship, MHRD, Venkatesan C.
4. Restructured Composite Materials course (AE681) to develop experimental skills among students. The experimental projects are included for students to have an hands-on-experience of fiber composites manufacturing and their mechanical properties characterization, R. Kitey.
5. Initiated the process to build high strain rate testing facilities in Aero Structures Lab, R. Kitey.
6. Elected as an executive member of The combustion institute (India Section) for 2010-2012, D. P. Mishra.

### Biological Science and Bio-engineering

7. IIT-Kanpur designs polymer-based knee joint- October 2009, Ashok Kumar.
8. <http://www.business-standard.com/india/news/iit-kanpur-designs-polymer-based-knee-joint/374627/>
9. IIT-K develops cartilage in lab, says may help osteoarthritis, Ashok Kumar.  
<http://in.news.yahoo.com/48/20091224/1251/ten-iit-k-develops-cartilage-in-lab-says.html>  
<http://pubs.acs.org/subscribe/journals/ancham/78/i09/html/0506materialworld.pdf>
10. Nanomaterials: Possible Consequences on Human Health, Ashok Kumar.  
<http://www.iitk.ac.in/infocell/iitk/newhtml/storyoftheweek.htm>
11. Environmental Endocrine Disrupters and Human Health, Ashok Kumar.  
<http://www.iitk.ac.in/infocell/iitk/newhtml/storyoftheweek55.htm>
12. Bhat, Sumrita, Tripathi, Anuj, and Kumar, Ashok (2010). Neo-cartilage Procreation on Cryogel Matrices Sharing Characteristics to Native Cartilage as a Potential Treatment for Osteoarthritis. Available from Nature Precedings  
<http://hdl.handle.net/10101/npre.2010.4301.1> (2010)  
<http://precedings.nature.com/documents/4301/version/1>

## Chemical

13. Director, Rajiv Gandhi Institute of Petroleum Technology, Rae Bareli, an Institute of National Importance created under an Act of Parliament, J.P. Gupta.
14. Visiting Professor, MIT, Cambridge, USA, Oct-Dec. 2009, D. Kunzru.
15. Member, PAC (Chemical Engineering), DST, N.Delhi, D. Kunzru.
16. Member, Board of Governors, Rajiv Gandhi Institute of Petroleum Technology, Rai Bareli,U.P, D. Kunzru.
17. Chairman of two Advisory & Monitoring Committees of the Bioprocess and Bioproducts Programme of TIFAC, D. Kunzru.
18. Reviewer - Funding agencies (DST), Journals (Electrochemical Solid-State Letters), S. Panda.
19. Reviewed papers for Journal of Chemical Physics and Indian Chemical Engineer, P.A. Apte.

## Civil

20. Appointed examiner for Ph. D. thesis of IIT Mumbai by Tripathi, S.N.
21. AGU Publication Committee, ISPRA, EU, Milan, April 2009 by Tripathi, S.N.

## Computer Science & Engineering

22. Coordinator, International Conference on Foundations of Software Technology and Theoretical Computer Science, held at IIT Kanpur, Department of Computer Science and Engineering from Dec 13-20, 2010, Sumit Ganguly.
23. Program Committee Member, ACM International Conference on Management of Data (SIGMOD 2010). Reviewer for 10 papers, Sumit Ganguly.
24. Program Committee Member, IEEE International Conference on Data Engineering (ICDE 2010). Reviewer for 8 papers, Sumit Ganguly.
25. Program Committee Member, International Conference on Database Systems for Advanced Applications (DASFAA 2010). Reviewer for 7 papers, Sumit Ganguly.
26. Program Committee Member, International Conference on Database and Expert System Applications (DEXA 2009). Reviewer for 8 papers, Sumit Ganguly.

## Electrical

27. A new lab for the microwave imaging and material testing is currently being developed in the department, Akhtar Jaleel.

28. Organized an Indo-US workshop on System of Systems Engineering at IIT Kanpur during 26-28 October 2009, L. Behera.
29. Research Grant Obtained: PI, DST Sponsored Project on Intelligent Visual Control of Redundant Manipulator Systems for Grasping 3-D Objects, Rs 33 Lakhs, 2009, L. Behera.
30. Article for General Readership, Low Cost and Flexible Organic Solar Cells Directions, vol. 10, no. 2, December 2009, S Sundar Kumar Iyer and Satyendra Kumar.
31. During the Fall 2009 semester, he revamped the control systems experiments of EE380 with a view to making them practically useful to the students. He designed new experiments for two of the three existing hardware setups (ball & beam and inverted pendulum), and introduced four new experiments (based on DC motor control) that my students had built in the Networked Control Systems laboratory the preceding summer. Also, his team documented all the six experiments thoroughly so that other faculty and students may be able to deploy them even in their absence. These six new experiments enable the student to actually work with the software and hardware of the control systems, Potluri Ramprasad.
32. Responsible for Design and Tape out of first application specific integrated circuit (ASIC) at I.I.T. Kanpur. The tape out is due for fabrication by Europractice in Belgium. To promote design activities at other technical institutes, the Chip also has designs from three N. I. T.s which were integrated at I. I. T. Kanpur, Qureshi S.

#### Industrial Management & Engineering

33. Visiting Professor, Design Factory, Helsinki University of Technology, Espoo Finland, March to November, 2009, J Chatterjee.
34. Core Faculty at Interdisciplinary Product Development, Summer School of Helsinki University of Technology, 5<sup>th</sup> - 20<sup>th</sup> August, 2009, J Chatterjee.
35. Visiting Scholar in the department of Statistik und Ökonometrie at Justus-Liebig-Universität Gießen, Gießen, GERMANY, 4th May-12th May, 2009, Raghu Nandan Sengupta.
36. Japan Visit with VLFM second Batch 5<sup>th</sup>-18<sup>th</sup> July 2009; AK Mittal.
37. LUMS advisory Council meeting MIT Boston June 2009, AK Mittal.
38. Vice-President QCFI India; AK Mittal.
39. Centre of excellence at Penang Malaysia May 3-5, 2009; AK Mittal.
40. Draft CERC regulation for REC Framework Implementation 2009, issued by Central Electricity Regulatory Commission, Nov. 2009; Anoop Singh.
41. Member, Advisory Committee for Capacity Building of distribution Personnel under R-APDRP, Ministry of Power, Government of India; Anoop Singh.



42. Member, Research Advisory Committee, Council of Power Utilities, New Delhi; Anoop Singh.

#### Humanities and Social Sciences

43. Visiting Faculty in MA programme in Elementary Education, hosted jointly by the Tata Institute of Social Sciences, Digantar, Eklavya and Vidya Bhawan, Amman Madan
44. Member of advisory committee of Pragat Shikshan Sansthan, Phaltan, Amman Madan
45. Member of advisory committee, Vidya Bhawan Centre for Societal Studies, Udaipur, Amman Madan
46. Towards a meaningful school social science, Deccan Herald, Bangalore, 23<sup>rd</sup> April 2009, Amman Madan
47. Interview Create an India that is fearless in its search for truth, Deccan Herald, Bangalore, 8<sup>th</sup> April 2009, Amman Madan
48. Convener, Organizing Committee, National Workshop on Qualitative Research
49. Methods: Potential for the Science of Well-Being and Self-Growth at IIT Kanpur,
50. 24 - 27 February, 2010, Kumar Ravi Priya
51. Completed Initiation Grant Project 2008-09(September) (DORD, IITK) entitled, Productivity Analysis of the ICT sector and Linkage in some countries of South East Asia, Australia and New Zealand, Somesh K. Mathur
52. Consultant to National Knowledge Commission on TRIPS October, 2006 - 2008, National Knowledge Commission Report 2009, Somesh K.Mathur
53. Conducted English Skills and Active Learning Strategies Workshop for students and teachers of L. K. Singhania Education Centre, Gotan, Rajasthan, 9-10,July 2009, Suchitra Mathur
54. Visiting Faculty at IIT Gandhinagar from Feb 1, 2010 to April 30, 2010. During this period, participated in the Setting up of the counseling service, Advising for development of a communications centre, Co-teaching of a Ph.D. course in Literary Theory, Conducting a communication skills workshop for IIT Gandhinagar staff, Suchitra Mathur
55. Have been Head, Department of HSS, IIT Kanpur since May 26, 2009 (continuing), Lilavati Krishnan.
56. Coordinator of the Group on Impacts, Economics and Policy, as part of the proposed Center for Earth Systems and Climate Change Research, at I.I.T. Kanpur, Praveen Kulshreshtha.

57. Member, Solar Energy Research Enclave, at I.I.T. Kanpur, Praveen Kulshreshtha.
58. Working on an Initiation Grant Project on 'Philosophy and the Marathi Language', Prashant Bagad.
59. Cultural and Livelihood Objectives for Maintaining Sustainable Flows (Sponsored and Consultancy projects), P. Murali Prasad.

#### Materials Science and Engineering

60. Re Indian Key Leader for Indo-UK project entitled Effect of cation substitution on the structure and biocompatibility of ionomer glasses and glass ceramics with University of Birmingham, University of Warwick, University of Kent and Sree Chitra Tirunal Institute for Medical Sciences and Technology [SCTIMST, India], funded by UK-India Educational Research Initiative, January, 2009- , Dr. B. Basu.
61. Organized International Symposium on Hydrogen and Energy Storage on Jan. 14<sup>th</sup> 2010 as a part on IIT Kanpur's Golden Jubilee celebrations, K. Balani.
62. Material Advantage at IIT Kanpur, a technical student chapter in the Materials and Metallurgical Engineering Department, received award for Most Students Recruited with a cash prize of \$500.00 by Material Advantage Charter, K. Balani.
63. Delivered the GD Birla Gold medal lecture titled The knowledge based foundation of steelmaking and application in steel melt shop, Dipak Mazumdar.
64. Co-Chairman of the Organizing Committee, 4<sup>th</sup> Asian Particle Technology (APT-2009), held in New Delhi during September 14-16, 2009, S. P. Mehrotra.
65. Established a 3 kW, controlled atmosphere, microwave sintering facility by Dr. A. Upadhayay.

#### Chemistry

60. Spectrally resolved femtosecond photon-echo spectroscopy of astaxanthin, Ajitesh Kumar, S.K. Karthick Kumar, Vivek Tewari and Debabrata Goswami, Chemfest-2009, Poster Session, Dept. of Chemistry, IIT Kanpur, Oct. 31, 2009, D. Goswami.
61. Organized the fifth JNOST at IIT Kanpur under the aegis of the golden jubilee of IIT Kanpur December 2-5 2009, R. Gurunath.
62. Faculty incharge for the chatisgarh outreach lecture 2010. A set of lectures on various topics were coordinated and given in L-14, R. Gurunath.

63. Member DPGC, department of chemistry, IIT Kanpur, R. Gurunath.
64. Member, Faculty forum executive committee, IIT Kanpur ,R. Gurunath.
65. Member, executive committee, Indian peptide society, R. Gurunath.
66. SURGE-2010, Summer Undergraduate Research for Excellence, Faculty-in-charge, Madhav Ranganathan.
67. DUGC - Department of Chemistry, Department Undergraduate Committee Convener, Madhav Ranganathan.
68. Organized a satellite (SABIC, TIFR) (mini) one day symposium on bio- inorganic chemistry, in the department of chemistry, IITK , November 9, 2009, S. Sarkar.
69. Participated in the brainstorming session at IISc on the KVPY (Kishor vaygyanik prothshahan yojana) program, April 2010, K. Srihari
70. Editing a book entitled Dynamical tunneling: Theory and Experiments along with Peter Schlagheck (Belgium), to be published by Taylor and Francis/CRS press, 2010, K. Srihari.

#### Mathematics and Statistics

71. Member, Programme Committee, 12<sup>th</sup> International Conference on Rough Sets, Fuzzy Sets, Data Mining & Granular Computing (RSFDGrC 2009), December 16-18, 2009, Delhi, Mohua Banerjee.
72. Member, Programme Committee, 7<sup>th</sup> International Conference on Rough Sets and Current Trends in Computing (RSCTC 2010), June 28-30, Warsaw, Poland, Mohua Banerjee.
73. Coordinator of a Workshop for Mathematics School Teachers, Organized by the National Academy of Sciences, India at Allahabad, Sept. 19,20,2009. Resource persons included Prof. U.B. Tewari, Prof. V. Raghavendra, Prof. Neeraj Misra, Prof. D. Kundu and Prof. A.K. Lal from IIT Kanpur, P. Chandra.
74. National Workshop cum training programme on Dynamical System: Analysis and Applications, Department of Mathematics, BHU , Varanasi, Oct. 22-31,2009 - Gave two invited talks on Mathematical Modeling and epidemiology, P. Chandra.
75. National Meet of Research Scholars for Mathematical Sciences, IIT Roorkee, Dec. 19-23, 2009. Delivered an Invited talk on 'Mathematical Writing', P. Chandra.
76. Presided the 75th Annual session of Indian Mathematical Society, held at Kalasalingam University, Krishnankoil (TN), Dec. 26-30,2009. Delivered Presidential address - General and Technical on Dec. 26, 2009, P. Chandra.
77. Delivered two invited lectures in the DST Workshop on 'Mathematical Models for Biofluid flows and Application' at SV University, Tirupati, Jan. 23,24,2010, P. Chandra.

78. Member, International Scientific Committee 1st and 2<sup>nd</sup> Chaotic Modelling and Simulation International Conference, June 3-6, 2008, June 1-5, 2009, Chania, Crete, Greece, G.P. Kapoor.
79. Editorial Board Member of the Journal of Modern Applied Statistical Methods, D. Kundu.
80. DST Sponsored Serc Project Analyzing non-stationary signals Duration 3 years, Mitra.
81. Sponsored projects sponsored by/ DST, April 2009 to April 2012 Accelerated Life Testing, S. Mitra.
82. Chaired a session on fluid flow analysis in Int. Conf. Mathematical Modeling and nonlinear equations, Jan. 20-22, 2010, BNMIT, Bangalore, B. V. Rathish Kumar.
83. Chaired a student paper presentation session in National Meet for Research Scholars in Mathematical Sciences, Dec. 19-23, IIT, Roorkee, B.V. Rathish Kumar.
84. Indo-German Conference on PDES, Scientific computing and optimization in Applications. Oct 7-9, 2009, IIT Kanpur, B.V. Rathish Kumar.
85. Special session on PDEs, Scientific Computing & Applications in IMS 2009, Dec. 27-30, 2009 KL Univ, Maduria, Tamilnadu, B.V. Rathish Kumar.
86. On the Editorial Board for Journal of the International Academy of physical sciences since July 2009, B.V. Rathish Kumar.
87. Visiting faculty at Mathematics Training and Talent Search Programme (MTTS) held Mysore during May 18-June 13, 2009. I taught a course of lecture on Topology, G. Santhanam.

## Physics

88. Visiting Professor, University Joseph Fourier, Grenoble, France, 5<sup>th</sup> May 2009 - 23<sup>rd</sup> July 2009, A.K. Gupta.
89. Working on the development of a remote low temperature laboratory accessible through the internet along under MHRD's Virtual Labs project. A K Gupta and K.P. Rajeev.
90. Chair, organizing committee, ICTS program on Non-Equilibrium Statistical Physics, part of Golden Jubilee Celebration of IIT Kanpur, 30th January - 8<sup>th</sup> February, 2010, IIT Kanpur. D. Chowdhury.
91. Chair, organizing committee, International Conference on Interaction, Instability, Transport and Kinetics: Glassiness and Jamming, part of Golden Jubilee Celebration of IIT Kanpur, 4-8 February, 2010, IIT Kanpur. D. Chowdhury.

92. S.A. Ramakrishan visited IISER Mohali as an Adjunct Faculty and taught a course module on electromagnetic antennas for the M.Sc. Physics students there. (23rd Oct. 29<sup>th</sup> Oct. 2009).
93. Convenor, organizing committee, ICTS program on Non-Equilibrium Statistical Physics, part of Golden Jubilee Celebration of IIT Kanpur, 30th January - 8<sup>th</sup> February, 2010, IIT Kanpur, S. S. Banerjee.
94. Convenor, organizing committee, International Conference on Interaction, Instability, Transport and Kinetics: Glassiness and Jamming, part of Golden Jubilee Celebration of IIT Kanpur, 4-8 February, 2010, IIT Kanpur, A. Dutta.
95. Convenor, organizing committee, International Conference on Interaction, Instability, Transport and Kinetics: Glassiness and Jamming, part of Golden Jubilee Celebration of IIT Kanpur, 4-8 February, 2010, IIT Kanpur, S. S. Banerjee.
96. Convenor, organizing committee, ICTS program on Non-Equilibrium statistical Physics, part of Golden Jubilee Celebration of IIT Kanpur, 30<sup>th</sup> January - 8<sup>th</sup> February, 2010, IIT Kanpur, A. Dutta