

Publications and Outreach Activities

BOOKS AND BOOK-CHAPTERS PUBLISHED

1. Proceedings of the International Congress on Computational Mechanics and Simulation, Vol.I and II, Dec 9-12, 2004, Indian Institute of Technology, Kanpur, Ed. N.G.R. Iyengar and Ashwini Kumar.
2. Airbreathing Engines & Aerospace Propulsion Proceedings of NCABE-2004, 05- 07, Nov. 2004, Ed. R.K. Sullerey
3. Mathematical Methods in Chemical and Environmental Engineering, Thomson Learning, Singapore, 2004, 689 pages, A. K. Ray and S. K. Gupta.
4. Advances in Nanoscience and Nanotechnology, National Institute of Science Communication and Information Resources, Council of Scientific and Industrial Research, New Delhi (2004), Ashutosh Sharma, Jayesh Bellare and Archana Sharma (Eds.).
5. Inherently Safer Design, in Lees Loss Prevention in the Process Industries, 3rd Edition, Chief Editor: M. Sam Mannan, Butterworth-Heinemann, London, 2005, J.P. Gupta and D.C. Hendershot.
6. Failure and recovery of entangled polymer melts in elongational flow, in Rheology Reviews 2004 (Editors K. Walters and D. Binding) 1-17, Joshi Y. M. and Denn M. M.
7. The science of mesoscale patterning of thin films by templating, In Advances in Nanoscience and Nanotechnology, pp. 207-220, Eds. Ashutosh Sharma, Jayesh Bellare and Archana Sharma, National Institute of Science Communication and Information Resources, Council of Scientific and Industrial Research, New Delhi (2004), Kargupta K. and Sharma A.
8. Inorganic and Organometallic Polymers. Springer Verlag, Heidelberg, Germany, Chandrasekhar V.
9. Recent Advances in the Nanostructured Magnetic Particles, Advances in Nanoscience and Nanotechnology, National Institute of Science Communication and Information Resources (CSIR) New Delhi, 2004, N. S. Gajbhiye and G. Balaji.
10. Sonochemical synthesis of Nano materials, Review chapter in Encyclopedia of Nano Science and Nano Technology, H. S. Nalwa, Ed., American Scientific Publishers, 10, 2004, S. Sundar Manoharan and Manju Lata Rao.
11. Chapter on Copper in Comprehensive Coordination Chemistry-II: From Biology to Nanotechnology, Vol. 6 (Volume Editor: D. E. Fenton), Editors: J. A. McCleverty and T. J. Meyer, Elsevier/Pergamon, Amsterdam, 2004, pp. 747 – 910, R. N. Mukherjee.

- 12 Monitoring of Changes Related to Natural and Manmade Hazards Using Space Technology , Ed. R.P. Singh , Pergamon Press, UK.
- 13 Earthquake Tips: Learning Earthquake Design and Construction (an IITK-BMTPC release) Published by the National Information Center of Earthquake Engineering, IIT Kanpur, India March 2005 by Dr. C.V.R. Murty.
- 14 Smart card based protocol for secure and controlled access of mobile host in IPv6 compatible foreign network, Advances in security and payment methods for mobile commerce's chapter 14, Idea Group Publishing Hershey USA 2005, R. K.Ghosh, A.Arora and G. Barua.
- 15 Distributed Computing and Internet Technology Proceedings of ICDCIT 2004, Lecture Notes in Computer Science volume 3347, Springer., R.K.Ghosh and H. Mohanty
- 16 Video Biometrics Video Data Management and Information Retrieval, Idea Group Inc. edited by Sagarmay Dec, 2004, Phalguni Gupta, Mayank Vatsa and Richa Singh.
- 17 Overview of Biometric Technologies Encyclopedia of Multimedia Technology and Networking, Idea Group Inc 2004, Phalguni Gupta, Mayank Vatsa, Richa Singh and A. Kaushik.
- 18 Biometric Databases Encyclopedia of Database Technologies and Applications, Idea Group Inc 2004, Phalguni Gupta, Mayank Vatsa, Richa Singh and A. Kaushik.
- 19 Offline Signature Recognition- An Overview Encyclopedia of Data Warehousing and Mining Idea, Online Signature Recognition- An Overview Encyclopedia of Data Warehousing and Mining Idea Group Inc 2004, Phalguni Gupta, Indrani Chakraborty, N. Misra, Mayank Vatsa, and Richa Singh.
- 20 Online Signature Recognition- An Overview Encyclopedia of Data Warehousing and Mining, Idea Group Inc 2004, Phalguni Gupta, Indrani Chakraborty, N. Misra, Mayank Vatsa, and Richa Singh.
- 21 The Time boxing process model for iterative software development in Advances in Computers, Vol 6 pp 67-103, 2004, Pankaj Jalote.
- 22 Aurum, and R. Jeffery, Knowledge Infrastructure for Project Management in Managing Software Engineering Knowledge, Springer Verlag, 2004, Pankaj Jalote.
- 23 Pattern Recognition Algorithms for Data Mining Chapman & Hall CRC Press, Boca Raton, FL, ISBN: 1-58488-457-6'', May 2004, Pabitra Mitra and S. K. Pal.
- 24 Proceedings of International Symposium on Machine Translation, NLP

- 25 And Translation Support System (ISTRANS- 2004) Tata Mc Graw, R.M.K. Sinha (Chief Editor), Hill New Delhi, 2004.
- 26 Splay Trees, Handbook of data Structure and Application, Chapman & Hall/CRC 2004, S.Saxena.
- 27 Virtual Instrumentation using LABVIEW: Sanjay Gupta & Joseph John, Tata Mc Graw Hill, New Delhi.
- 28 A Unified Computational Lexicon for Hindi-English Code-switching, Rajeev Sangal and S.M. Bendre (eds.) Natural Language Processing, Allied Publishers, New Delhi, 2004, pp. 185-194, Achala M. Raina, Amitabha Mukerjee, Pushpraj Shukla.
- 29 Incorporating Pragmatic-Semantic Domain Lexicons for Converting Arithmetic Word Problem, Rajeev Sangal and S.M. Bendre (eds.), Natural Language Processing, Allied Publishers, New Delhi, 2004, pp. 275-279. Himanshu Gupta, Kumar Gaurav, Amitabha Mukerjee, Achla M. Raina,
- 30 Memoirs of Capt. Lakshmi, (Translation from English to Malayalam), Women's Imprint, Trivandrum, 2005, Mini Chandran.
- 31 Half a Life by V.S. Naipaul, South Asian Literature in English: An Encyclopedia, Sanga Jaina (ed.), Greenwood Press, Connecticut, 2004, pp. 133-135, T. Ravichandran.
- 32 Mimic Men by V.S. Naipaul, South Asian Literature in English: An Encyclopedia, (ed.), Sanga Jaina, Greenwood Press, Connecticut, 2004, pp. 207-209, T. Ravichandran.
- 33 From Resistance to Acceptance: A Wriggling Journey between Despair and Hope in Rohinton Mistry's Such a Long Journey, Protest and Aftermath in Post-War Literature in English, (eds.), Urbashi Barat and Neelanjana Pathak, Jaipur, Surabhai Publication, 2005, 160-170, T.Ravichandran.
- 34 Developing New Formulations and Relaxations of Single Stage Capacitated Warehouse Location Problem (SSCWLP): Empirical Investigation for Assessing Relative Strengths and Computational Effort, Logistics and Global Outsourcing, Kulwant S. Pawar, Chandra S. Lalwani and Janat Shah (Eds.), pp. 286-291, 2004, ISBN : 0 85358 129 0, Sharma, R.R.K. and Berry, V.
- 35 Multi-Machine Scheduling Problem for General Job Value Deterioration Function in Operations Research with Economic and Industrial Applications Emerging Trends, Eds. S.R. Mohan and S.K. Neogy, Anamaya Publishers, 2005, pp. 112-123, Sumit Raut and Sanjeev Swami.
- 36 Contract Design in Complex Supply Chains Using Genetic Algorithm and Game, 2004, Raut, Sumit, Sanjeev Swami, Eunkyoo Lee, and Charles B. Weinberg.

- 37 Theoretic Approach, Logistics and Global Outsourcing, Kulwant S. Pawar, Chandra S. Lalwani and Janat Shah (Eds.), pp. 292-298, 2004, ISBN : 0 85358 129 0,
- 38 Differential Equations and Dynamical Systems, Narosa Publications, New Delhi, 2005, Bahuguna D.
- 39 Integrodifferential Equations with Analytic Semigroups, J. Appl. Math. Stochastic Anal. 16, No. 2, 177-189, 2003, Bahuguna D.
- 40 Principles of Optimization Theory Narosa Publications, New Delhi, 2004, Dutta J.
- 41 Mathematical Biology: Recent Trends Anamaya Publication, New Delhi, 2005, Rathish B.V.K.
- 42 Statistical Computing: Existing Methods and Recent Advances, Narosa Publications, New Delhi, 2004, Kundu D., Basu A.
- 43 Simultaneous Selection of Extreme Populations: Optimal Decision Rules, Advances in Ranking and Selection, Multiple Comparisons and Reliability with Applications, 143-160, Birkhousur Boston, Misra N., Dhariyal I. D.
- 44 The Qutub Complex, Aryan Books International, New Delhi, 2005, Hardbound, ISBN 81-7305-293-X in press, R. Balasubramaniam.
- 45 Delhi Iron Pillar – A Metallurgical Marvel, Foundation Books, New Delhi, 2005, Paperback, ISBN-81-7596-278-X. in press, , R. Balasubramaniam.
- 46 Lal and the Conservation of the Delhi Iron Pillar, *Studies in Art and Archaeological Conservation: Dr. B.B. Lal Commemoration Volume*, Edited by A.S. Bisht and S.P. Singh. Delhi, Agam Kala Prakashan, 2004, ISBN 81-7320-059-9.29, pp 45-62, R. Balasubramaniam.
- 47 Characterization of Rust on Ancient Indian Iron, Chapter XIII in *Science in Archaeology and Archaeomaterials*, Ed. A.K. Biswas, D.K. Printworld, (P) Ltd., New Delhi, 2005, pp. 275-314, R. Balasubramaniam, A.V. Ramesh Kumar and P. Dillmann.
- 48 Fundamentals of Manufacturing Processes, Narosa Publishing House, New Delhi, (2005), G.K. Lal, S.K.Choudhury.
- 49 Advanced Engineering Fluid Mechanics, Second Edition, Narosa Publisher, November 2004, ISBN: 81-7319-627-3 (594 pages), K. Muralidhar and G. Biswas.
- 50 Computer Aided Engineering Design, Anamaya Publishers (India) and Springer, PO BOX 322, 3300 AH Dordrecht, The Netherlands, 2005, Saxena, A. and Sahay, B.
- 51 Heat Transfer, Oxford University Press, New Delhi, (2004), P.S. Ghoshdastidar.

- 52 Solutions Manual of Heat Transfer, Oxford University Press, New Delhi, P.S. Ghoshdastidar.
- 53 CI Engine performance for Use with Alternative Fuels, and New Diesel Engines and Components, SP-1978, 196 Pages, Published by SAE International, USA, 2005, (Eds.), J. E. Mossberg, A. Jain, G. J. Thompson, Avinash K. Agarwal.
- 54 Mathematical Physics: the Basics, Universities Press, Hyderabad, 2005, S.D. Joglekar
- 55 Green's Function in Axial and Lorentz-type Gauges and Application to The Axial Pole Prescription and The Wilson Loop (Book Chapter in the book Frontiers in High Energy Physics, Volume 4), Allied Book Publishers, New Delhi (2004), S.D Joglekar.
- 56 Negative refraction and sub-diffraction imaging, Encyclopedia of Mathematical Physics, Elsevier, Oxford, 2005, S. O'Brien and S.A. Ramakrishna (to appear).
- 57 Superconductivity in Quaternary Borocarbides; R. Nagarajan, C. Mazumdar, Z. Hossain, L.C. Gupta; Frontiers in Superconducting Materials, Ed. A.V. Narlikar, Publisher- Springer Verlag (2005) p. 393 (in press).
- 58 Light and Thermally Induced Metastabilities in Nanocrystalline Silicon, Chapter in the book Advances in Nanoscience & Nanotechnology, A. Sharma, J. Bellare and A. Sharma (Eds.), NISCOM, New Delhi, 2004 by N.P. Mandal and S.C. Agarwal.
- 59 Brane-world phenomenology in Current Perspectives in High Energy Physics: Lectures from SERC Schools, ed. D. Ghoshal (Hindustan Book Agency, 2004) by S. Raychaudhuri (Book chapter).

JOURNAL AND CONFERENCE PAPERS

1. Nonlinear free vibration of laminated composite plate with random material properties. *J. Sound & Vib.* 2004, 272, 627-641, Amit. Kr. Onkar, D. Yadav.
2. Linear and nonlinear analysis of a smart beam using general electro-thermo-elastic formulation, *AIAA Journal*, Vol. 42, No. 4, April 2004, pp. 840-849, S.N. Ahmad, C.S. Upadhyay, and C. Venkatesan.
3. Influence of nonlinear elastomer on lag dynamics and rotor/ fuselage aeromechanical stability, *Journal of Aircraft*, Vol. 41, No. 6, Nov.-Dec. 2004, pp. 1449-1465, G. Pohit, C. Venkatesan and A.K. Mallik.
4. Secondary Flow Control Using Vortex Generator Jets *Journal of Fluids Engineering*, July 2004, Vol. 126, pp. 1-8, R.K. Sullerey and A.M. Pradeep.
5. Detection of Separation in S-duct Diffusers using Shear sensitive liquid Crystals, *Journal of Visualization*, Vol. 7, No.4 2004, pp.299-307, A.M. Pradeep and R.K. Sullerey.
6. Vortex ring formation at the open end of a shock tube: A particle image velocimetry study. *PHYSICS OF FLUIDS VOLUME 16, NUMBER 4 APRIL 2004 PP 1008-1019* J. H. Arakeri, Debopam. Das, A. Krothapalli, and L. Lourenco.
7. Vortex induced vibrations of a pair of cylinders at Reynolds number 1000, *International Journal of Computational Fluid Dynamics*, 18, 2004, 601-614, S.Mittal and V. Kumar.
8. Role of shear layer instability in the transition of boundary layer on a bluff body, *Journal of Visualization*, 7, 2004, 107, S.P. Singh and S.Mittal.
9. Three-dimensional instabilities in flow past a rotating cylinder, *Journal of Applied Mechanics, ASME*, 71, 2004, 89-95, S.Mittal.
10. Energy Spectra of Flow Past a Circular Cylinder, *International Journal of Computational Fluid Dynamics*, 18(8), 2004, 671-679, S.P. Singh and S.Mittal.
11. Flow Past a Cylinder: Shear Layer Instability and Drag Crisis, *International Journal for Numerical Methods in Fluids*, 47, 2005, 75-78, S.P. Singh and S. Mittal.
12. Effect of Leading Edge Cut on the Aerodynamics of Ram-Air Parachutes, *International Journal for Numerical Methods in Fluids*, 47, 2005, 1-17, R. Balaji, S. Mittal and A.K. Rai.

13. Vortex induced oscillations at low Reynolds numbers: hysteresis & vortex-shedding modes, accepted for publication in journal of Fluids and Structures, 2005, S.P. Singh and S.Mittal.
14. Neural Models for Predicting Trajectory Performance of an Artillery Rocket, AIAA Journal of Aerospace Computing, Information, and Communication, Vol. 1, No.2. Feb. 2004, pp 112-115, A.K.Ghosh, Om Prakash.
15. Wind tunnel Investigation of Typical Strategic Missile Configuration at High Angle of Attack, Journal of Aerospace Science and Technology- Accepted for Publication, A.K. Ghosh, Girish Sagoo, Ankur Singhal.
16. Nonlinear Control Law with Application to High Angle of Attack Flight Using Neural Networks, AIAA Journal of Aerospace Computing, Information, and Communication- Submitted for Publication, P. N.Diwevedi, A. K. Ghosh.
17. Nonlinear Control Law with Application to High Angle of Attack Flight Using Neural Networks, National Conference on Control Dynamics, IIT, Bombay, Jan-2005, P.N. Diwevedi, A.K. Ghosh.
18. Identification of Residues in the Human Guanylate-binding Protein 1 Critical for Nucleotide Binding and Cooperative GTP Hydrolysis, J.Mol.Biol., 344, 257-269, 2004, Praefcke Gerrit JK., Kloep Stephen., Benschaid Utz., Lilie Hanke, Balaji Prakash and Herrmann Christian.
19. Analysis of GTPases carrying hydrophobic amino acid substitutions in lieu of the catalytic glutamine: Implications for GTP hydrolysis, Proteins: Structure, Function, and Bioinformatics 2005, Rajeev Mishra, Sudheer Kumar Gara, Shambhavi Mishra, Balaji Prakash.
20. ATCUN-like metal-binding motifs in proteins. Identification and characterization by crystal structure and sequence analysis, Proteins: Structure, Function and Bioinformatics 58, 211-221, 2005, Sankararamakrishnan R., Verma S. and Kumar S.
21. Enforcing solution phase nanophase aggregation in a palindromic tripeptide Chem. Commn. 20, 2564-2566, 2005, Prasad, K.K., Purohit, C. S., Jain, A., Sankararamakrishnan, R. and Verma, S.
22. Bioresorbable nanofiber based systems for wound healing and drug delivery: optimization of fabrication parameters, J. Biomed. Mater. Res., 70B(2):286-96,. (Cover Article), 2004, Katti DS, Robinson KW, Ko F K and Laurencin CT.
23. Affinity binding of cells to cryogel adsorbents with immobilized specific ligands: Effect of ligand coupling and matrix architecture, J. Molecular Recognition 18, 84-93, 2005, Kumar A., Caballero AR., Fatima P, Galaev

- Iyu, Nandakumar KS, Kamihira M, Holmdahl R., Orfao T and Mattiasson B.
24. Mechanisms for activating Cu- and Zn-containing superoxide dismutase in the absence of the CCS Cu chaperone. Proc Natl Acad Sci U S A. 101(16), 5964-9, 2004, Carroll MC, Girouard JB, Ulloa JL, Subramaniam JR, Wong PC, Valentine JS, Culotta VC.
 25. Molecular dynamics study of nanocomposite polymer electrolyte based on poly (ethylene oxide)/LiBF₄, Modeling and Simulation in Materials Science Engineering, 12(3), S73-S89 (2004), R. Bandyopadhyaya, O. Borodin, G.D. Smith, P. Redfern, L. S. Curtis.
 26. Dynamics of chain aggregates of carbon nanoparticles in isolation and in polymer films: Implications for nanocomposite materials, Chemistry of Materials, 16(16), 3147-3154 (2004), R. Bandyopadhyaya, W. Rong, S.K. Friedlander.
 27. Treatment of prehydrolysis liquor from pulp mill using biological route followed by Reverse Osmosis, Chern. Eng. Technol. (in press), R. L. Rath, C. Bhattacharjee, Shikha Jain, P. K. Bhattacharya.
 28. Studies on UF of spent sulfite liquor (SSL) using various membranes and recovery of lignosulphonates, Desalination (in Press). (January 2005 issue), M. Tiwari, S. Bhattacharjee, C. Bhattacharjee, R. K. Todi, P. K. Bhattacharya.
 29. Pervaporation of Hydrazine Hydrate: Separation characteristics of membranes with hydrophilic to hydrophobic behaviour, Journal of Membrane Science, 238,103 -115 (2004), S. V. Satyanarayana, P. K. Bhattacharya.
 30. Composite membranes for hydrophobic pervaporation: Study with toluene-water system, Chemical Engineering Journal, 102,171 -184 (2004), S. V. Satyanarayana, A. Sharma and P. K. Bhattacharya.
 31. Pervaporation from a dense membrane: Roles of permeant - membrane interactions, Kelvin effect, and membrane swelling, Langmuir, 20, 4708 (2004), A. Sharma, S. P. Thampi, S. V. Suggala and P. K. Bhattacharya.
 32. Two dimensional steady flow of a power law fluid past a square cylinder in a plane channel, Ind. Eng. Chem. Res., 42, 5674 (2003), A.K. Gupta, A. Sharma, R.P. Chhabra and V. Eswaran.
 33. Convective heat transfer for power law fluids in packed and fluidized beds of spheres, Chem. Engng. Sci., 59, 645 (2004), R. Shukla, S.D. Dhole, R.P. Chhabra and V. Eswaran.

34. Forced convection in cross flow of power law fluids over a tube bank, *Chem. Engng. Sci.*, 59, 2213 (2004), N. Mangadreddy, R. Prakash, R.P. Chhabra and V. Eswaran.
35. In Situ UV-vis-NIR Diffuse Reflectance and Raman Spectroscopy and Catalytic Activity of Propane ODH over supported $\text{CrO}_3/\text{ZrO}_2$ Catalysts, *Langmuir*, 20(17), 7159 (2004), T.V.M. Rao, J-M. Jehng, I.E. Wachs, and G. Deo.
36. Nature of the Vanadia-Ceria Interface in $\text{V}^{+5}/\text{CeO}_2$ Catalysts and its Relevance for the Solid-State Reaction Towards CeVO_4 and catalytic properties, *J. Catal.*, 225(1), 240 (2004), M.V. Martinez-Huerta, J.M. Coronado, M. Fernandez-Garcia, A. Iglesias-Juez, G. Deo, J.L.G. Fierro and M.A. Banares.
37. Oxidative Dehydrogenation of Propane on $\text{V}_2\text{O}_5/\text{Al}_2\text{O}_3$ and $\text{V}_2\text{O}_5/\text{TiO}_2$ catalysts: Understanding the Effect of Support by Parameter Estimation, *Applied Catalysis A: General*, 265 (1) 103 (2004), K. Routray, K.R.S.K Reddy and G. Deo.
38. Measuring the Work of Adhesion between a Soft Confined Film and a Flexible Plate, *Langmuir*, 21, 1277-1281 (2005), Animangsu Ghatak, L. Mahadevan, and Manoj K. Chaudhury.
39. Bhopal: No Silver Lining, *Environmental Health Perspective*, Vol. 112 (14), A-541 (October 2004), J.P. Gupta.
40. Multi-objective Optimization of Semi-batch Copolymerization Reactors using Adaptations of Genetic Algorithm (GA), *Macromolecular Theory Simulation*, 13, 73-85 (2004), A. Nayak and S. K. Gupta.
41. Simulation and Multiobjective Optimization of the Continuous Tower Process for Styrene Polymerization, *Journal of Applied Polymer Science*, 94, 775-788 (2004), S. A. Bhat, R. Sharma and S. K. Gupta.
42. Multiobjective Optimization of an Industrial Crude Distillation Unit using the Elitist Non-dominated Sorting Genetic Algorithm, *Chemical Engineering & Research. Design*, 82(A), 611-623 (2004), S. V. Inamdar, S. K. Gupta and D. N. Saraf.
43. Genetic Algorithm and Multi-objective Function Optimization with the Jumping Gene (Transposon) Adaptation—a Primer, A Compendium of CSIR Diamond Jubilee Lectures held at NML, Eds., R. P. Goel and N. G. Goswami, NML, Jamshedpur, 2004, pp., 51 – 66, S. K. Gupta and S. Bhatt.
44. Applications of Genetic Algorithm for Solving Multi-objective Optimization Problems in Chemical Engineering, *Directions (IITK)*, 6(3), 49-55 (2004), A. Tarafder, A. K. Ray and S. K. Gupta.

45. Rupture and recovery of entangled polymeric liquids in elongational flow, *J. Rheology*, 48, 591-598 (2004), Joshi Y. M. and Denn M. M.
46. An SPC framework for the characterization of batch profile, *Technometrics*, 46(1), 53-68 (2004), N. Kaistha, CF Moore and M.G. Leitnaker.
47. Estimation of LLX for PIONA families and its validation, *Computers and Chemical Engg*, 28, 1529-1546 (2004), Ashok Khanna et al..
48. Constrained non-linear optimization for solubility parameters of polylactic acid and polyglycolic acid – validation and comparison, *Polymer*, 45, 8603-8612(2004), Ashok Khanna et al.
49. Genetic Algorithm to estimate interaction parameters of multicomponent systems for liquid-liquid equilibria, *Computers & Chemical Engineering* (Article in Press, Feb. 2005), Ashok Khanna et al.
50. Oxidative Dehydrogenation of Propane on V_2O_5 - ZrO_2 Catalysts, *Catal. Letters* 96, 33(2004), M.De and D.Kunzru.
51. Effect of Additives on the Performance of V_2O_5 - ZrO_2 Catalysts for the Oxidative Dehydrogenation of Propane, 18th Canadian Symposium on Catalysis, Montreal, May 16-19, 2004, M.De and D.Kunzru.
52. Thermal Cracking of JP-10: Determination of Kinetics and Effect of Initiators, 7thNational Conference on Airbreathing Engines and Aerospace Propulsion, Nov.5-7,2004, IIT Kanpur, Nageswara Rao Peela and D. Kunzru.
53. Catalytic Steam Reforming of Ethanol for Production of Hydrogen on Ni/CeO₂ Catalysts, CHEMCON-2004, Mumbai,Dec.27-30,2004, P.Biswas and D.Kunzru.
54. Industry-Academia Interaction:Challenges and Opportunities, Proceedings of the National Symposium on Engineering Education(NSEE-05)',Bangalore, Feb. 25-26,2005,pp54-56, D.Kunzru.
55. Effect of Calcium and Potassium on V_2O_5/ZrO_2 Catalyst for Oxidative Dehydrogenation of Propane:A Comparative Study, *Catal.Letters*,2005(in press), M.De and D.Kunzru.
56. Synthesis and Applications of Carbon Nanotubes, *Directions* 6(2),9, May 2004, D.Kunzru and A.Agarwal.
57. Novel simulated moving-bed adsorber for the fractionation of gas mixtures *J. Chromatography*, in press. Available on Web: http://www.sciencedirect.com/science?_ob=QuickSearchListURL&_method=list&_aset=V-WA-A-W-C-MsSAYWA-UUW-U-AAAADCCVDE-AAUEBBZWDE-EBEYAADAA-C-U&_sort=d&view=c&_st=13&_acct=C000023778&_version=1&_userid

- [=489944&md5=c64b03fa8e06fe3a37d571bd31bf1df9](#), D. P. Rao, S. V. Sivakumar, S. Mandal, S. Kota, and B.S.G. Ramaprasad
58. Process Intensification in Rotating Packed Beds (HIGEE): An Appraisal, I&EC research, 43, 1150-1162 (2004), D. P. Rao, A. Bhowal, and P. S. Goswami.
 59. Stability of two-layer viscoelastic plane Couette flow past a deformable solid layer: Implications of fluid viscosity stratification, Journal of Non-Newtonian Fluid Mechanics, 125, 143-158 (2005), V. Shankar.
 60. Instability of high-frequency modes in viscoelastic plane Couette flow past a deformable wall at low and finite Reynolds number, Journal of Non-Newtonian Fluid Mechanics, 125, 121-141 (2005), A. Sameer Kumar and V. Shankar.
 61. Stability of two-layer Newtonian plane Couette flow past a deformable solid layer, Physics of Fluids, 16, 4426-4442 (2004), V. Shankar and Lalit Kumar.
 62. Stability of two-layer viscoelastic plane Couette flow past a deformable solid layer, Journal of Non-Newtonian Fluid Mechanics, 117, 163-182 (2004), V. Shankar.
 63. Instability of the interface between thin fluid films subjected to electric fields, Journal of Colloid and Interface Science, 274, 294-308 (2004), V. Shankar and Ashutosh Sharma.
 64. Instability of viscoelastic plane Couette flow past a deformable wall, Journal of Non-Newtonian Fluid Mechanics, 116, 371-393 (2004), V. Shankar and Satish Kumar.
 65. Instability and dynamics of thin liquid bilayers, Ind. Eng. Chem. Res. 44, 1259-1272 (2005), D. Bandyopadhyay, R. Gulabani and A. Sharma.
 66. Adhesion and debonding of soft elastic films: crack patterns, metastable pathways and forces, Langmuir 21, 1457-1469 (2005), J. Sarkar, A. Sharma and V. Shenoy.
 67. Pattern formation and dewetting in thin films of liquids showing complete macroscale wetting: from Pancakes to Swiss-Cheese, Langmuir 20, 10337-10345 (2004), A. Sharma and R. Verma.
 68. Patterns, forces and metastable pathways in debonding of elastic films, Phys. Rev. Lett. 93, 018302 (2004), J. Sarkar, V. Shenoy and A. Sharma. Also a selected paper in Virtual Journal of Nanoscale Science & Technology, 10 (2), (2004).
 69. Surface patterns in evaporating droplets on dissolving substrates, Langmuir 20, 3456-3463 (2004), M. Gonuguntla and A. Sharma.

70. Pervaporation from a dense membrane: roles of permeant-membrane interactions, Kelvin effect and membrane swelling, *Langmuir* 20, 4708-4714 (2004), S.V. Satyanarayana, P.K. Bhattacharya and A. Sharma.
71. Instability of the interface between thin fluid films subjected to electric fields, *J. Colloid Interface Sci.* 274, 299-313 (2004), V. Shankar and A. Sharma.
72. Arresting photodegradation of porous silicon by a polymer coating, *Solid State Communications* 129, 183 (2004), N.P. Mandal, A. Sharma and S.C. Agarwal.
73. Instability, morphology and dynamics of thin slipping films, *Langmuir* 20, 244-253 (2004), K. Kajari, A. Sharma and R. Khanna.
74. Composite membranes for hydrophobic pervaporation: study with the toluene–water system, *Chem. Eng. J.* 102, 171-184 (2004), S.V. Satyanarayana, A. Sharma and P.K. Bhattacharya,
75. Comparative study of removal of volatile organic compounds by cryogenic condensation and adsorption by activated carbon fibre, *Separation & Purification Tech.* 39, 23-37 (2004), P. Dwivedi, V. Gaur, A. Sharma and N. Verma
76. Adsorption of volatile organic compound by activated carbon fiber, *Carbon*, 42 (14), 2949-2962, D. Das, V. Gaur, and N. Verma.
77. Wall effects in flow past a circular cylinder in a plane channel: a numerical study, in press, *Chem. Engg. Process.* 43 (12), 1529-1537(2004), J. Chakraborty, N. Verma and R.P. Chhabra.
78. Comparative study of removal of volatile organic compounds by cryogenic condensation and adsorption by activated carbon fiber. *Sep. Purif. Tech.*, 39, 23-37 (2004), P. Dwivedi, V. Gaur, A. Sharma and N. Verma.
79. Self-Assembly of Lanthanide Helicate Coordination Polymers into 3D Metal-Organic Framework Structures, S. K. Ghosh, P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 2293.
80. A Novel Dodecameric Water Cluster Built Around a Cyclic Quasi-Planar Hexameric Core in an Organic Supramolecular Complex of Cryptand, S. K. Ghosh, P. K. Bharadwaj, *Angew. Chem. Int. Ed.* 43 (2004) 3577.
81. Structure of Discrete (H₂O)₁₂ Clusters Present in the Cavity of Polymeric Interlinked Metallo-cycles of Nd(III) or Gd(III) and a Podand Ligand, S. Neogi, G. Savitha , P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 3771.
82. Attachment of an Electron–Withdrawing Fluorophore to a Cryptand for Modulation of Fluorescence Signaling, B. P. Bag, P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 4626.

83. Modulation of SHG Responses via Supramolecular Association/Dissociation Between two Complementary Cryptands, P. Mukhopadhyay, P. K. Bharadwaj, A. Krishnan, P. K. Das, *J. Orgmet. Chem.* 689 (2004) 4877.
84. Cryptand Based Fluorescent Signaling Systems: High Enhancement with Transition, Inner-Transition as well as Heavy Main-Group Metal Ions, B. P. Bag, P. K. Bharadwaj, *J. Luminescence* 1-2, (2004) 85.
85. Metal-Organic Framework Structures of Cu (II) with Pyridine-2, 6-dicarboxylate and Different Spacers: Identification of a Metal Bound Acyclic Water Tetramer, S. K. Ghosh, J. Ribas, P. K. Bharadwaj, *Cryst. Eng. Commun.* 6 (2004) 250.
86. Reactivity of Pyridine-2, 4, 6-tricarboxylic Acid Toward Zn(II) Salts Under Different Reaction Conditions, S. K. Ghosh, G. Savitha, P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 5495.
87. Studies of amphiphiles with cryptand headgroup at the air-water interface. Punam Tripathi, Sujit K. Ghosh, Parimal K. Bharadwaj, Ram Adhar Singh, *Proceedings of the Indian National Science Academy, Part A: Physical Sciences* 70A (2004), 383.
88. Transition Metals Based Nanomaterials for Signal Transduction, B. P. Bag, P. K. Bharadwaj, *Encyclopaedia of Nanoscience and Nanotechnology* 10 (2004) 517.
89. Puckered Boat Conformation Hexameric Water Clusters Framework Structure stabilized in a 2D Metal-Organic Framework structure Built from Cu(II) and Benzene-1,2,4,5-tetracarboxylic Acid, S. K. Ghosh and P. K. Bharadwaj, *Inorg. Chem.* 43 (2004), 5180.
90. Structure of a Discrete Hexadecameric Water Cluster in a Metal-Organic Framework Structure. S. K. Ghosh and P. K. Bharadwaj, *Inorg. Chem.* 43 (2004), 6887.
91. Binding and extraction of pertechnetate and perrhenate by azacages. Fundamentals and Applications of Anion Separations, [Proceedings of the Symposium Fundamentals and Applications of Anion Separations held during the American Chemical Society National Meeting, Chicago, IL, United States, Aug. 26-31, 2001], Holger Stephan, Karsten Gloe, Werner Kraus, Hartmut Spies, Bernd Johannsen, Kathrin Wichmann, Guenter Reck, Dillip K. Chand, Parimal K. Bharadwaj, Mueller Ute, M. Walter, Fritz Voegtle (2004) 151-168.
92. Fluorescence enhancement of a signaling system in the simultaneous presence of a transition and an alkali metal ions: a potential AND logic gate. B. P. Bag, P. K. Bharadwaj, *Chem. Commun.* (2005) 513.

93. An Infinite Water Chain Passes Through an Array of Zn (II)-Metalloclusters Built with a Podand Bearing Terminal Carboxylates S. Neogi, P. K. Bharadwaj, *Inorg. Chem.* 44 (2005) 816.
94. Perturbation of the PET Process in Fluorophore-Spacer-Receptor Systems through Structural Modification: Transition metal Induced Fluorescence Enhancement and Selectivity. B. P. Bag, P. K. Bharadwaj, *J. Phys. Chem. B* 109 (2005) 4377.
95. Characterization of 3D Metal-Organic Frameworks Formed Through Hydrogen Bonding Interactions of 2D Networks with Rectangular Voids by Co^{II} and Ni^{II} (pdc) [pdc= Pyridine-2,6-dicarboxylate] and 4,4'-Bipyridine or 1,2-Di(pyridyl)ethylene, S. K. Ghosh, J. Ribas, P. K. Bharadwaj, *Crystal Growth and Design.* 5 (2005) 623.
96. Self-Assembly of a Co(II) Dimer through H-bonding of Water Molecules to a 3D Open-Framework Structure, S. K. Ghosh, P. K. Bharadwaj, *J. Chem Sci.* 117 (2005) 23.
97. Fluorescence Enhancement with Different Ionic Inputs in a Cryptand Based Multi-receptor Signaling System, B. P. Bag, P. K. Bharadwaj, *J. Chem. Sci.* (2005) 0000.
98. Attachment of Electron-Withdrawing 2,4-Dinitrobenzene Groups to a Cryptand-Based Receptor for Cu(II)/H⁺-Specific Exciplex and Monomer Emissions, B. P. Bag, P. K. Bharadwaj, *Org. Lett.* (2005) 0000.
99. Coordination Polymers of La (III) as Bunched Infinite Nanotubes and Their Conversion into an Open-Framework Structure, S. K. Ghosh, P. K. Bharadwaj, *Inorg. Chem.* (2005) 0000.
100. Mn(II) Staircase Structures Stitched by Water Clusters to a 3D Metal-Organic Open Framework: X-ray Structural and Magnetic Studies, Sujit K. Ghosh, Joan Ribas, M. Salah El Fallah, Parimal K. Bharadwaj, *Inorg. Chem.* (2005) 0000.
101. A reusable zigzag copper(II) coordination polymer with bio-essential constituents as a facile DNA scission agent, Sanjib Das, C. Madhavaiah, Sandeep Verma, Parimal K. Bharadwaj, *Inorg. Chim. Acta.* (2005) 0000.
102. Cyclophosphazene hydrazides as efficient multisite coordination ligands. \square^3 -fac-non-geminal-N₃ coordination of spiro-N₃P₃[O₂C₁₂H₈][N(Me)NH₂]₄ (L) in L₂CoCl₃ and L₂M(NO₃)₂ (M = Ni, Zn, Cd) Vadapalli Chandrasekhar, Venkatasubbaiah. Krishnan, Alexander. Steiner, Jamie. F. Bickley, *Inorg. Chem.* 2004, 43, 166-172
103. Metalated hybrid polymers as catalytic reagents for phosphate ester hydrolysis and plasmid modification Vadapalli Chandrasekhar, Pravasa Deria, *Bioorg. Med. Chem. Lett.* 2004, 14, 1559-1562, Venkatasubbaiah

- Krishnan, Arunachalampillai Athimoolam, Sanjay Singh, C. Madhavaiah, S.G. Srivatsan, Sandeep Verma.
104. Reactions of $n\text{-Bu}_2\text{SnO}$ and $(n\text{-Bu}_3\text{Sn})_2\text{O}$ with 1,1,2,3,3-pentamethyltrimethylene phosphinic acid: Synthesis and X-ray crystal structures of a novel spirocyclic coordination polymer and a 16-membered inorganic macrocycle, *Organometallics* 2004, 23, 1390-1395, Vadapalli Chandrasekhar, Viswanathan Basker, Alexander Steiner, Stefano Zacchini.
 105. Molecular zinc phosphonates: synthesis and X-ray crystal structures of $[\{(ZnMe)_4(THF)_2\}\{tBuPO_3\}_2]$ and $[\{(ZnEt)_3(Zn(THF))_3\}\{tBuPO_3\}_4\{\mu_3\text{-OEt}\}]$ *Dalton Transactions* 2004, 1271-1275, G. Anantharaman, Vadapalli Chandrasekhar, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull M. Noltemeyer.
 106. New Polyhedral Zinc Siloxanes: Synthesis and X-ray Crystal Structures of $Zn_8Me_7(\text{dioxane})_2(\text{O}_3\text{SiR})_3$ and $[Zn_7Me_2(THF)_5(\text{O}_3\text{SiR})_4]$ [$R = (2,6\text{-iPr}_2\text{C}_6\text{H}_3)\text{N}(\text{SiMe}_3)$], *Organometallics*, 2004, 23, 2251-2256, G. Anantharaman, Vadapalli Chandrasekhar, U. N. Nehete, H. W. Roesky, D. Vidovic, and J. Magull.
 107. Organostannoxane Motifs in Cages and Supramolecular Architectures, Phosphorus, Sulfur, Silicon and the Related Elements, 2004, 179, 699-701, V. Chandrasekhar, V. Baskar, R. Boomishankar, S. Nagendran.
 108. Synthesis and Reactivity of the Carbaalanes $(AlH)_6(AlNMe_3)_2(\text{CCH}_2\text{C}_5\text{H}_4\text{FeC}_5\text{H}_5)_6$ and $(AlH)_6(AlNMe_3)_2(\text{CCH}_2\text{Ph})_6$: X-ray Crystal Structure of $(AlH)_6(AlNMe_3)_2(\text{CCH}_2\text{C}_5\text{H}_4\text{FeC}_5\text{H}_5)_6$, *Organometallics*, 2004, 23, 3496-3500, S. Shravan Kumar, J. Rong, ; S. Singh, ; H. W. Roesky, D. Vidovic, J. Magull, D. Neculai, V. Chandrasekhar, M. Baldus.
 109. Polyhedral Ferrous and Ferric Siloxanes, *Angew. Chem. Int. Ed.*, 2004, 43, 3832 – 3835, U. N. Nehete, G. Anantharaman, V. Chandrasekhar, R. Murugavel, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull, K. Samwer, B. Sass.
 110. Molecular $\{(SnO)_6\}$ Trapped by Two $\{R_2Si_2O_3\}$ Fragments: X-Ray Single-Crystal Structure of $[(SnO)_6(R_2Si_2O_3)_2]$ *Angew. Chem. Int. Ed.*, 2004, 43, 3842 – 3844, U. N. Nehete, V. Chandrasekhar, G. Anantharaman, H. W. Roesky, D. Vidovic, J. Magull.
 111. Two Types of Intramolecular Addition of an Al-N Multiple-Bonded Monomer $LAlNAr'$ Arising from the Reaction of LAl with N_3Ar' ($L = HC[(CMe)(NAr)]_2$, $Ar' = 2,6\text{-Ar}_2\text{C}_6\text{H}_3$, $Ar = 2,6\text{-iPr}_2\text{C}_6\text{H}_3$), *J. Am. Chem. Soc.*, 2004, 126, 9472-9473, H. Zhu, J. Chai, V. Chandrasekhar,

- H. W. Roesky, J. Magull, D. Vidovic, H-G. Schmidt, M. Noltemeyer, P. P. Power, and W. A. Merrill.
112. Control of Molecular Topology and Metal Nuclearity in Multimetallic Assemblies: Designer Metallosiloxanes Derived from Silanetriols, *Chem. Eur. J.*, 2004, 10, 4106-4114, H. W. Roesky, G. Anantharaman, V. Chandrasekhar, V. Jancik, S. Singh.
 113. Tetranuclear Homo- and Heteroalumoxanes Containing Reactive Functional Groups: Syntheses and X-ray Crystal Structures of $[\{[LAl(Me)](\mu-O)(MH_2)\}_2]$, *Angew. Chem. Int. Ed.*, 2004, 43, 4940-4943, S. Singh, S. S. Kumar, V. Chandrasekhar, Hans-Jürgen Ahn, M. Biadene, H. W. Roesky, N. S. Hosmane, M. Noltemeyer, Hans-Georg Schmidt Hybrid polymeric ligands and polymer supported catalysts containing cyclophosphazenes, *Competes Rendus Chimie*, 2004, 7, 915-925, Vadapalli Chandrasekhar, Venkatasubbaiah Krishnan, Pakkirisamy Thilagar.
 114. Heavy-Metal-Containing Polyhedral Metallasiloxane Derived from an Aminosilanetriol: Synthesis and Structural Characterization of $[(PbO)_6(R_2Si_2O_3)_2]$ ($R = (2,6-iPr_2C_6H_3)N(SiMe_3)$), *Organometallics* 2004, 23, 5372-5374, U. N. Nehete, V. Chandrasekhar, V. Jancik, H. W. Roesky, R. Herbst-Irmer.
 115. Recent developments in the synthesis and structure of organosilanols, *Chem. Rev.*, 2004, 104, 5847-5910, V. Chandrasekhar, R. Boomishankar, S. Nagendran.
 116. A Paradigm Change in Assembling OH Functionalities on Metal Centers, *Acc. Chem. Res.*, 2004, 37, 969-981, H. W. Roesky, S. Singh, V. Jancik, V. Chandrasekhar.
 117. The Formal Conversion of SiOH Protons into Hydrides by Germanium (II) Species Leads to the Formation of the Germanium (IV) Hydride Cluster $[(RSiO_3GeH)_4]$, *Angew. Chem. Int. Ed.* 2005, 44, 281 – 284, U. N. Nehete, V. Chandrasekhar, H. W. Roesky, J. Magull.
 118. A luminescent linear trinuclear magnesium complex assembled from a phosphorus-based tris-hydrazone ligand, *Chem. Commun.*, 2005, 459-461, V. Chandrasekhar, R. Azhakar, J. F. Bickley, A. Steiner.
 119. Hydrogen bond mediated rotor-ring coupling in acetic acid–benzoic acid mixed dimer, *J. Chem. Phys.* 121 (2004) 7562, C. K. Nandi, M. K. Hazra and T. Chakraborty.
 120. Conformational effects on vibronic spectra and excited state dynamics of 3-fluorobenzoic acid dimer, *J. Chem. Phys.* 121 (2004) 5261, C. K. Nandi, M. K. Hazra and T. Chakraborty.

121. Hydrogen bond-induced vibronic mode mixing in benzoic acid dimer: A laser-induced fluorescence study, *J. Chem. Phys.* 120 (2004) 8521-8527, C. K. Nandi and T. Chakraborty.
122. Binding Energy and Intermolecular Vibrations of Neutral and Ionized p-Fluorotoluene-Ar Cluster by Mass Analyzed Threshold Ionization, *J. Phys. Chem. A* 108 (2004) 3304-3307, S. Georgiev, T. Chakraborty and H. J. Neusser.
123. Mass Analyzed Threshold Ionization Spectroscopy of p-Fluorostyrene, *J. Chem. Phys.* 120 (2004) 8015, S. Georgiev, H. J. Neusser and T. Chakraborty.
124. Impact of extended π -conjugation on methyl rotor-induced IVR in aromatic molecules, *J. Phys. Chem. A.* (2005) [in press], P. Biswas, S. K. Panja and T. Chakraborty.
125. Inter- and Intramolecular hydrogen bond in methyl 2-hydroxy-9H-1-carbazole carboxylate: effect of solvents and acid concentration, *J. Photochem. Photobiol. A: Chem.*, 161 (2004) 169, M. K. Nayak and S. K. Dogra.
126. Ground and excited state prototropism in 2-(2'-methoxyphenyl)-1H-imidazo [4,5-c]pyridine, *J. Mol. Struct.*, 691 (2004) 59, M. M. Balamurali and S. K. Dogra.
127. Solvatochromism and prototropism in methyl 6-aminonicotinate: Failure to observe amine-imine phototautomerism in solvents, *J. Mol. Struct.* 702 (2004) 85, M. K. Nayak and S. K. Dogra.
128. Photophysics of 2-(6'-hydroxy-3-pyridyl) benzimidazole: Effects of solvents and acid-base concentrations, *J. Mol. Struct.*, 703 (2004) 1, M. M. Balamurali and S. K. Dogra.
129. Inter- and Intramolecular proton transfer in methyl 2-hydroxynicotinate, *J. Lumin.*, 110 (2004) 147, M. M. Balamurali and S. K. Dogra.
130. Excited state intramolecular proton transfer in 2-(2'-amino-3'-pyridyl) benzimidazole: Effects of solvents, *Chem. Phys.*, 305 (2004) 95, M. M. Balamurali and S. K. Dogra.
131. Photophysics of 1-hydroxy-9-fluorenone: Absence of excited state intramolecular proton transfer reaction, *J. Photochem. Photobiol.* 169 (2005) 79, M. K. Nayak and S. K. Dogra.
132. Photophysics of 1-hydroxy-9-fluorenone and 1-methoxy-9-fluorenone: Non-radiative fluorescence deactivation, *J. Photochem. Photobiol.*, 169 (2005) 299, M. K. Nayak and S. K. Dogra.

133. Inter- and Intramolecular excited state proton transfer in 2-hydroxy-9H-carbazole-1-carboxylic acid, *Spectrochim Acta A*: in press, M. K. Nayak and S. K. Dogra.
134. Excited state intermolecular proton transfer in 2-(2'-hydroxy-3'-pyridyl) benzimidazole, *J. Mol. Struct.*, 734 (2005) 51, S. K. Dogra.
135. Spectral characteristics of 2-hydroxynicotinic acid: Effects of solvents and acid or base concentrations, *J. Mol. Struct.*, 737 (2005) 189, S. K. Dogra.
136. Hydrogen bond dynamics at air-water and metal-water interfaces, *Chem. Phys. Lett.* 386, 2004, 218-224, Sandip Paul and Amalendu Chandra.
137. Binding of hydrogen binding solutes at liquid-vapour interfaces of molecular fluids, *Chem. Phys. Lett.* 400, 2004, 515-519, Sandip Paul and Amalendu Chandra.
138. Magnetic Properties of ϵ -Fe_{3-x}Ni_xN nanoparticles, *Phys. Stat. Sol. (c)*, 1, 2004, 3764, N. S. Gajbhiye and Sayan Bhattacharyya.
139. Mössbauer Studies of Nanosize CuFe₂O₄ Particles, *Hyper. Interact.* 156/157, 2004, 57, N. S. Gajbhiye, G. Balaji, Sayan Bhattacharyya, M. Ghafari.
140. Magnetism of Nanostructured Iron Nitride (Fe-N) Systems, *Phys. Stat. Sol. (c)*, 1, 2004, 3252, N. S. Gajbhiye, R. N. Panda, R. S. Ningthoujam and Sayan Bhattacharyya.
141. Structural, Electrical and Magnetic Studies of Nanocrystalline δ -MoN and γ -Mo₂N, *Phys. Stat. Sol. (c)*, 1, 2004, 3449, N. S. Gajbhiye and R. S. Ningthoujam.
142. Magnetic and Current Density Studies on Nanostructured Vanadium Nitride Material, *Ind. J. Phys.*, 78A, 2004, 89, Raghmani Singh Ningthoujam and N. S. Gajbhiye.
143. Thermal Decomposition Study of Nanocrystalline Ni₃N, *Ind. J. Phys.*, 78A, 2004, 265, R. S. Ningthoujam and N. S. Gajbhiye.
144. Mössbauer Study of Nanocrystalline ϵ -Fe_{3-x}Co_xN, *Hyper. Interact.* 156/157, 2004, 51, N. S. Gajbhiye, R. S. Ningthoujam and J. Weissmüller.
145. Effect of La, B Doping on the Electrical Transport and Magnetic Properties of Nanocrystalline Vanadium Nitride, *J. Appl. Phys.*, 96, 2004, 688, N. Sudhakar, R. S. Ningthoujam, K. P. Rajeev, A. K. Nigam, J. Weissmueller and N. S. Gajbhiye.
146. Control of molecular topology and metal nuclearity in multimetallic assemblies: Designer metallosiloxanes derived from silanetriols, *Chem.*

- Eur. J. 2004, 10, 4106-4114, H. W. Roesky, G. Anantharaman, V. Chandrasekhar, V. Jancik, S. Singh.
147. Optical Pulse Shaping Approaches to Coherent Control, *Physics Reports* 374(6), 385-483 (2003), Debabrata Goswami.
 148. Ultrafast Pulse Shaping and its Applications, *Frontiers in Atomic, Molecular & Optical Physics*, 3, 389 (2003), Debabrata Goswami.
 149. Optical Computing: Optical Components and Storage Systems, *Resonance* 8(6), 56-71 (2003), Debabrata Goswami.
 150. Optical Computing: Research Trends, *Resonance* 8(7), 8-21 (2003), Debabrata Goswami.
 151. Control of Supercontinuum Generation with Polarization of Incident Laser Pulses, *Appl. Phys. B* 77(2-3) 325-328 (2003), Alok Srivastava and Debabrata Goswami.
 152. Self-Assembly of Lanthanide Helicate Coordination Polymers into 3D Metal-Organic Framework Structures, S. K. Ghosh, P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 2293.
 153. A Novel Dodecameric Water Cluster Built Around a Cyclic Quasi-Planar Hexameric Core in an Organic Supramolecular Complex of Cryptand, S. K. Ghosh, P. K. Bharadwaj, *Angew. Chem. Int. Ed.* 43 (2004) 3577.
 154. Structure of Discrete (H₂O)₁₂ Clusters Present in the Cavity of Polymeric Interlinked Metallocycles of Nd(III) or Gd(III) and a Podand Ligand, S. Neogi, G. Savitha, P. K. Bharadwaj, *Inorg. Chem.* 43 (2004) 3771.
 155. Modulation of SHG Responses via Supramolecular Association/Dissociation Between two Complementary Cryptands, P. Mukhopadhyay, P. K. Bharadwaj, A. Krishnan, P. K. Das, *J. Orgmet. Chem.* 689 (2004) 4877.
 156. Magnetic and Current Density Studies on Nanostructured Vanadium Nitride Material, *Ind. J. Phys.*, 78A, 2004, 89, Raghmani Singh Ningthoujam and N. S. Gajbhiye.
 157. Thermal Decomposition Study of Nanocrystalline Ni₃N, *Ind. J. Phys.*, 78A, 2004, 265, R. S. Ningthoujam and N. S. Gajbhiye.
 158. Effect of La, B Doping on the Electrical Transport and Magnetic Properties of Nanocrystalline Vanadium Nitride, *J. Appl. Phys.*, 96, 2004, 688, N. Sudhakar, R. S. Ningthoujam, K. P. Rajeev, A. K. Nigam, J. Weissmueller and N. S. Gajbhiye.
 159. Control of molecular topology and metal nuclearity in multimetallic assemblies: Designer metallosiloxanes derived from silanetriols, *Chem. Eur. J.* 2004, 10, 4106-4114, H. W. Roesky, G. Anantharaman, V. Chandrasekhar, V. Jancik, S. Singh

160. Reactions of organocobaloximes with arylsulfonyl chlorides, *J. Organometal. Chem.*, 689 (2004) 1102-1109, B. D. Gupta, V. Vijaikanth.
161. Indium Mediated Regio- and Diastereoselective Reduction of Norbornyl α -Diketones, F. A. Khan, *J. Dash Ch. Sudheer Chem. Eur. J.* 2004, 10, 2507-2519. Magnetism and magneto - transport properties in sonochemically $\text{Co}_{100-x}\text{Pt}_x$ nano alloys, *J. Nanosci. Nanotech.* 4 (7), 1-4, 2004, Manju Lata Rao, S. Sundar Manoharan, D. Elefant and C. M. Schneider
162. Identification of New Supramolecular Synthons in *o*- Anisaldehydes: Molecular Self-Assembly into Tapes and Staircases, *Journal of Molecular Structure* 2005, In Press, Moorthy, J. N.; Natarajan, R.; Venugopalan, P.
163. First Systematic Investigation of C-H \cdots Cl Hydrogen Bonding Using Inorganic Supramolecular Synthons: Lamellar, Stitched Stair-Case, Linked-Ladder and Helical Structures, *Chem. Eur. J.* 2004, 10, 1683-1690, V. Balamurugan, M. S. Hundal and R. N. Mukherjee.
164. Fixation of CO_2 in Air: Synthesis and Crystal Structure of a μ_3 - CO_3 -Bridged Tricopper(II) Compound, *J. Chem. Sci.* 2005, 117, in press, J. Mukherjee, V. Balamurugan, M. S. Hundal and R. N. Mukherjee.
165. Dynamics of (H-,H₂) collisions: A time-dependent quantum mechanical investigation on a new ab initio potential energy surface, *J. Chem. Phys.* 121(2004)9343, A. N. Panda and N. Sathyamurthy.
166. Time-dependent quantum mechanical wave packet study of the $\text{He} + \text{H}_2(\text{v},\text{j}) \rightarrow \text{HeH}^+ + \text{H}$ reaction, *J. Chem. Phys.* 122(2005)054304, A. N. Panda and N. Sathyamurthy.
167. Pi-pi interaction in pyridine, *J. Phys. Chem.*, 2005, B.K. Mihra and N. Sathyamurthy.
168. Ab initio potential energy surface for HeF_2 in its ground electronic state, *Chem. Phys.* 308(2005)277-284, U. Lourderaj and N. Sathyamurthy.
169. Three dimensional quantum dynamics of (H-,H₂) and its isotopic variants, *J. Phys. Chem.* 109(2005)xxx, A.N. Panda, K. Giri and N. Sathyamurthy.
170. Hydrogen bonding in phenol, water and phenol-water clusters R. Parthasarathi, ZV. Subramanian and N. Sathyamurthy, *J. Phys. Chem.* 109(2005) xxx.
171. Do the Electronic Effects of Sulfur Indeed Control the α -Selectivity of α -Sulfonyl Enones? A Reinvestigation, *J. Org. Chem.* 2004, 69, 3866-3874, Veejendra K. Yadav, K. Ganesh Babu, Masood Parvez.
172. Highly Stereoselective Prins Cyclization of Silylmethyl Substituted Cyclopropyl Carbinols to 2,4,6-Trisubstituted Tetrahydropyrans, *J. Am.*

- Chem. Soc 2004, 126, 8652-8653, Veejendra K. Yadav, Naganabonia Vijay Kumar.
173. On the reaction of 1-oxa-4-thiaspiro[4.5]decan-7-one with PhLi. A reinvestigation, *J. Org. Chem.* 2004, 69, 8131-8132, Veejendra K. Yadav, Govindaraji Senthil, Latika Singh, Masood Parvez.
 174. Protic acid (HClO₄ supported on silica gel) mediated synthesis of 2,3-unsaturated-O-glucosides and a chiral furan diol from 2,3-glycals *J. Org. Chem.* 2004, 70, 6137, Aditi Agarwal, Shikha Rani and Yashwant D. Vankar.
 175. Optimum Design of Nailed Soil Slopes, *Geotechnical and Geological Engineering: An International Journal*, Vol.23, No.3, pp. 273-296, 2005, Patra, C.R. and Basudhar, P.K.
 176. Response of Beams on a Tensionless Extensible Geosynthetic-Reinforced Granular Fill-Soft Soil system Subjected to Moving Loads. *Computers and Geotechnics*, Vol. 31, No. 7, pp. 537-548, 2004, Maheshwari, P., Chandra, S. and Basudhar, P.K.
 177. Modeling of Beams on Geosynthetic-Reinforced Granular Fill-Soft Soil System Subjected to Moving Loads, *Geosynthetics International*, Vol. 11, No. 5, pp 369-376, 2004, Maheshwari P., Chandra S. & Basudhar P.K.
 178. Analysis of Beams on Reinforced Granular Beds *Geosynthetics International*, Vol.11 No. 6 pp 460-470, 2004, Maheshwari P., Basudhar P.K. and Chandra S.
 179. An Asexual Genetic Algorithm for the General Single Vehicle Routing Problem, *Engineering Optimization*, Vol.37, No.1, pp. 1-28, 2005, Chakroborty, Partha and Mandal, Arijit.
 180. Lengths of Double (Dual) Left Turn Lanes, *Transportation Research Record*, 1881, pp. 72-78, 2004, Kikuchi, Shinya, Masanobu, Kii and Chakroborty.
 181. Estimating Travel Times on Urban Corridors using Bus Travel Time Data, *Transportation Research Record*, 1870, pp.18-25, Chakroborty, Partha and Kikuchi, Shinya.
 182. Microscopic Modeling of Driver Behavior in Uninterrupted Traffic Flow, *ASCE Journal of Transportation Engineering*, Vol. 130, Issue 4, pp. 438-451, 2004, Chakroborty, Partha, Agrawal, Saurabh and Vasishttha, Kyatham.
 183. Identification of homogeneous sections from road data, *International Journal of Pavement Engineering*, Vol. 4, (4), December, 2003, pp.229-233, Misra, R. and Das, A.

184. Evolution of non-standard bituminous mix – a study on Indian specification, International Journal of Pavement Engineering, Vol 5(1), March, 2004, pp. 39-46, Das, A., Deol, M. S., Ohri, S. and Pandey, B. B.
185. Use of a Fast Non Destructive Field Test Method for Determination of Stiffness of Subsurface Layer in Thin Surface Hot Mix Asphalt (HMA) Pavement, Transportation Research Record, TRB, 2005 (in press), Mallick, B. R., Das, A. and Nazarian, S.
186. Fatigue crack propagation and performance of bituminous mixes as per Indian specifications, 5th RILEM International Conference on cracking of pavement, mitigation, risk assessment and prevention, Limoges, 5-8th May, 2004, Dwivedi, R. and Das, A.
187. Some suggestions to improve the Mechanistic-Empirical bituminous pavement design in Indian context, Proceedings of First International symposium on design and construction of long lasting asphalt pavements, Auburn, 7-9th June, 2004, pp.199-215, Das, A.
188. A rational approach for prioritization of highway sections for maintenance, Proceedings of Sixth International Conference on Managing Pavements, Queensland, 19-24 October, 2004, Agarwal, P. K., Das, A., Chakroborty, P.
189. Emerging road materials and innovative application, Proceedings of National Conference on Materials and their Application in Civil Engineering, NIT Hamirpur, 26-27th August, 2004, pp.15-23, Goel, A. and Das, A.
190. An approach to rehabilitation of low traffic volume flexible pavement, International Conference on Structural and Road Transportation Engineering, IIT Kharagpur, 3rd to 5th January, 2005, pp.496-505, Mallick, B. R. and Das, A.
191. Ultra thin concrete overlays, Seminar on Design, Construction, Maintenance of Cement Concrete Pavements, Indian Roads Congress, 8th-10th October, 2004, New Delhi, pp.IV-183-IV-189, Goel, A. and Das, A.
192. Micromechanical analysis of irregular particulate composites at high volume fractions, Proceedings of International Congress of Computational Mechanics and Simulation, ICCMS04, IIT Kanpur, 9-12th December, 2004, Vol.-II, pp.443-450, Bandyopadhyaya, R., Das, A. and Basu, S.
193. Mix design for hot-mix recycled bituminous mixes, Proceedings of National Conference on Advances in Road Transportation, ART-2005, Rourkela, 12-13 February, 2005, Aravind K., Sahu, P. K. and Das, A.

194. Groundwater pollution source identification and simultaneous parameter estimation using pattern matching by artificial neural network, *Environmental Forensics*, Vol.5, No.3, 143-159, 2004, Singh, R.M. and Datta, Bithin.
195. Identification of Unknown groundwater pollution sources using artificial neural networks, *Journal of water Resources Planning and Management*, Vol.130, No.6, 506-514, 2004, Singh, R.M., Datta, Bithin and Jain, A.
196. Optimal Management of Coastal Aquifers Using Linked Simulation Optimization Approach, in Press for Publication in *Water Resources Management*, 2004, Bhattacharya, R.K. and Datta, Bithin.
197. Scaling in River Flow: Can It be Chaotic?, *Hydrol. Sciences J.*, 49(3), 373-385, 2004, Satish, R., Sivakumar, B, and Jain, A.
198. Development of Effective and Efficient Rainfall-Runoff Models using Integration of Deterministic, Real-Coded Genetic Algorithms, and Artificial Neural Network Techniques, *Wat. Resour. Res.*, 40(4), W04302, doi:10.1029/2003WR002355, 2004, Jain, A. and Srinivasulu, S.
199. Explaining the Internal Behavior of Artificial Neural Network River Flow Models, *Hydrol. Processes*, 118(4), 833-844, 2004, Sudheer, K.P. and Jain, A.
200. Discussion of Performance of Neural Networks in Daily Streamflow Forecasting by S. Birikundavyi, R. Labib, H. T. Trung and J. Rousselle, *ASCE J. Hydrol. Engg*, 9(6), 553-555, 2004, Sudheer, K.P., Jain, A., and Srinivasulu, S.
201. Closure of Comparative Analysis of Event based Rainfall-Runoff Modeling Techniques-Deterministic, Statistical, and Artificial Neural Networks, *ASCE J. Hydrol. Engg*, 9(6), 551-553, 2004, Jain, A. and Indurthy, S.K.V.P.
202. Identification of Unknown Groundwater Pollution Sources using Artificial Neural Networks, *ASCE J. Wat. Resour. Plng. & Mgmt*, 130(6), 506-514, 2004, Singh, R.M., Datta, B., and Jain, A.
203. Optimal Design of Composite Channels using Genetic Algorithm, *ASCE J. Irrig. & Drain. Engg*, 130(4), 286-295, 2004, Jain, A., Bhattacharjya, R., and Sanaga Srinivasalu.
204. An Evaluation of the Available Techniques for Estimating Missing Fecal Coliform Data, *J. Amer. Wat. Resour. Assoc.*, 40(6), 1617-1630, 2004, Jain, A. and Ormsbee, L.E.
205. Determination of an Optimal Unit Pulse Response Function using Real-Coded Genetic Algorithm, *J. Hydrol.*, doi:10.1016/j.jhydrol.2004.07.014, 2004, Jain, A., Srinivasulu, S., and Bhattacharjya, R.

206. An Evaluation of Artificial Neural Network Technique for the Determination of Infiltration Model Parameters, *J. Applied Soft Computing*. (In Press), 2005, Jain, A. and Kumar, A.
207. Scaling of Strength Reduction Factors for Degrading Elasto-Plastic Oscillators, *Earthquake Engineering and Structural Dynamics*, Vol. 34, pp. 189-206, 2005, Chakraborti, A. and Gupta, V.K.
208. Postbuckling Response of Square Laminates with a Central Circular/Elliptical Cutout, *Composite Structures*, 65(2004), 179-185, Jain, Payal and Kumar Ashwini.
209. Airborne Altimetric LiDAR Simulator, [GIS@development](#), May 2004 (invited paper), 2004, Lohani, B., Agrawal, N., Agrawal, N.,
210. Lohani, B., and Mason, D. C., 2004, A case study on error identification and minimization in Airborne Altimetric LiDAR data, *Asian Journal of Geoinformatics*, (In press).
211. Identification of tidal channel networks from aerial photographs alone and fused with airborne laser altimetry, *International Journal of Remote Sensing*, (In press), 2004, Lohani, B., Mason, D. C., Scott, T. R., and Sreenivas B.
212. Quality control in concrete construction: Some case studies, *Indian Concrete Journal*, June 2004, Misra, Sudhir and P Krishnamurthy.
213. A review of test methods and specifications for grouts in post-tensioned construction, *Indian Concrete Journal*, December 2004, Misra, Sudhir, Ranjit Kumar and Santhosh Kumar
214. Numerical Solution of Boussinesq Equations to Simulate Dam-Break Flows, *Jl. of Hydraulic Engineering, ASCE*, Vol 130, No. 2, pp 156-159, 2004, Mohapatra, P. K. and Chaudhry, M. H.
215. Predicting dam break flow by using artificial neural networks, *ICON-HERP-2004, I.I.T. Roorkee*, Oct 26 – 28, 2004, pp. 603-608, 2004, Mohapatra, P. K., Jha, S. K., and Jain, A.
216. Recreating Romance of Civil Engineering: the 2001 Summer Camp at IIT Kanpur, India, *Journal of Professional Issues in Engineering Education & Practice*, the American Society of Civil Engineers, USA, Vol.130, No.3, July 2004, pp 182-188, Murty,C.V.R., Dikshit,O., Tandon,R., Tandon.M.C., and Jain, S.K.
217. Effects of M 9 Sumatra Earthquake and Tsunami of 26 December 2004, *Current Science, Journal of Indian Academy of Sciences*, Bangalore, Vol.88, No.3, February 2005, pp 357-359, Jain,S.K., Murty,C.V.R., Rai,D.C., Malik,J.N., Sheth,A.R., and Jaiswal,A.
218. Twin Lintel Belt in Steel for Seismic Strengthening of Brick Masonry Buildings, *Journal of Earthquake Engineering and Engineering Vibration*,

- MCEER (SUNY, Buffalo, USA) and HIT (Harbin, China), Vol.3, No.2, pp215-222, December 2004, Dutta,J., Murty,C.V.R., and Agrawal,S.K.
219. Brick Masonry Infills in Seismic Design of RC Frame Buildings: Part 1 – Cost Implications, Indian Concrete Journal, The ACC Limited, Thane, Vol.78, No.7, July 2004, pp 39-44, Das,D., and Murty,C.V.R.
220. Brick Masonry Infills in Seismic Design of RC Frame Buildings: Part 2 – Behaviour, Indian Concrete Journal, The ACC Limited, Thane, Vol.78, No.8, August 2004, pp 31-38, Das,D., and Murty,C.V.R.
221. Preliminary Report: Recent Tsunami and Earthquake Devastation, Indian Concrete Journal, The ACC Limited, Thane, Vol.79, No.1, Januray 2005, pp 11-14, Jain, S.K., Murty, C.V.R., Rai, D.C., Malik, J.N., Sheth, A.R., Jaiswal, A., Sanyal,S.A., Kaushik, H.B., Gandhi,P., Mondal, G., Dash, S.R., Sodhi, J.S., Santhosh,G.
222. Seismic Design of RC Columns and Wall Sections: Part 1 – A Consistent Limit State Design Philosophy, Indian Concrete Journal, The ACC Limited, Thane, Vol.79, No.3, March 2005, pp 33-42m Dasgupta,K., and Murty,C.V.R.
223. Model pile groups under oblique pullout loads-an investigation, Geotechnical and Geological Engineering; An International Journal, Accepted, In press, 2004, Patra, N. R. and Pise, P. J.
224. Oblique Pulling Resistance of Model Pile Groups, Indian Geotechnical Journal,Vol.35, No.1, pp.101-125, 2005, Patra, N. R. and Pise, P. J.
225. Qualitative Study of Coast Effect on MV and MT Measurements in Western Coast of India, Journal of Geological Soc. of India, v. 63, no. 1, p. 88 - 94, 2004, Umesh K. Singh and Ramesh P. Singh.
226. Title Effects of M9 Sumatra earthquake and tsunami of 26 December 2004 Journal Current Science, Indian Academy of Sciences Volume vol. 88 no. 3Year 2005 Page no. 357-359, Jain, S. K., Murty, C. V. R., Rai, D. C., Sheth, A., and Jaiswal.
227. Title Earthquake engineering curriculum for polytechnics of UP and Uttaranchal Journal The Indian Journal of Technical Education, Indian Society of Technical Education Volume, Vol. 27, No.3, 2004 Page no. 31-36, Rai, D. C. and Jain, S. K.
228. Anomalous changes in column water vapor after Gujarat earthquake, Advances in Space Research, Volume 33, Issue 3, 2004, Pages 274-278, S Dey, S. Sarkar and R.P.Singh.
229. Changes in atmospheric aerosol parameters after Gujarat earthquake of January 26, 2001, Advances in Space Research, Volume 33, Issue 3, 2004, Pages 254-258, Y. Okada, S. Mukai, R.P. Singh.

230. Automatic building extraction from laser scanning data: an input tool for disaster management, *Advances in Space Research*, Volume 33, Issue 3, 2004, Pages 317-322, J. Dash, E. Steinle , R.P. Singh, H.P. Bahr.
231. S. Sun, Z. Liu, L. Chiu, R. Yang, R.P. Singh and M. Kafatos, Anomalous Cold Water along the Mid-Atlantic Coast during Mid-Summer, *EOS Trans*, Vol. 85, No. 15, 13.
232. Emissivity of various Geological terrains using IRS P4 MSMR data, *J. Geological Soc. of India*, Vol.63, 453-457, Mishra, D. R., Dey, S. and Singh, R. P.
233. Comparison of aerosol radiative forcing over the Arabian Sea and the Bay of Bengal, *Advances in Space Research*, Vol. 33, No. 7, Pages 1104-1108, S Dey, S. Sarkar and R.P.Singh.
234. Wavelet Maxima Curves of SLHF Associated With Recent Greek Earthquakes, *Natural Hazards and Earth System Sciences*, Vol. 4, Pages 359 – 374, G. Cervone, M. Kafatos, D. Napoletani, and R.P. Singh.
235. Further Evidences for the Weakening Relationship of Indian Rainfall and ENSO over India, *Geophysical Research Letters*. 31, L13209, doi:10.1029/2004GL020259, S.Sarkar, R.P. Singh and M. Kafatos.
236. Changes in Ocean Properties associated with Hurricane Isabel, *International J. Remote Sensing*, DOI: 10.1080/01431160412331299226, R. Gautam., R.P. Singh and M. Kafatos.
237. Discussion of Explicit Estimation of Aquifer Diffusivity from Linear Stream Stage, *Journal of Hydraulic Engineering*, American Society of Civil Engineers, 130(12), 2004, 1213-1214, Srivastava, R.
238. Discussion of Comparison of Continuous and Cyclic Pumping from a Well, *Ground Water*, 42(3), 2004, 457-458, Srivastava, R.
239. Solute transport through heterogeneous porous media, *Proceedings*, 11th National Symposium on Hydrology, Roorkee, October 2004, Sharma, P.K. and Srivastava, R.
240. Finite difference approach for groundwater recharge. *Proceedings*, National Conference on Hydraulics and Water Resources - Hydro 2004, Nagpur, December 2004. A.D. Vasudeo and R. Srivastava.
241. Influence of Dust Storms on the Aerosol Optical Properties over the Indo-Gangetic basin, *J. Geophys. Res.*, 109, D20211, doi:10.1029/2004JD004924, Dey. S., Tripathi, S.N., Singh, R.P. and B. Holben.
242. Variability of Aerosol Parameters over Kanpur City, northern India, *Journal of Geophysical Research* 109, D23206,

- doi:10.1029/2004JD004966, R.P. Singh, S. Dey, S.N. Tripathi, V. Tare and B. Holben.
243. Retrieval of water vapor using SSM/I and its relation with the onset of monsoon, *Annales Geophysicae* (2004) 22: 3079–3083, R. P. Singh, S. Dey, A. K. Sahoo,
 244. Wavelet maxima curves of surface latent heat flux anomalies associated with Indian earthquakes, *Natural Hazards and earth System Sciences*, 5: 87–99, SRef-ID: 1684-9981/nhess/2005-5-87, G. Cervone, R.P. Singh, M. Kafatos and C. Yu.
 245. Fluvial dynamics of an anabranching river system in Himalayan foreland basin, north Bihar plains, India, *Geomorphology*, 60/1-2 pp. 147-170, 2004, Jain, V. & Sinha, R.
 246. Evaporite mineralogy and geochemical evolution of the Sambhar Salt Lake, Thar Desert, Rajasthan, India. *Sedimentary Geology*, 166, 59-71, 2004, Sinha, R. & B.C. Raymahashay.
 247. Paleohydrology of the Sambhar Lake Playa, Thar Desert, India using geomorphological and sedimentological evidences. *Jour. Geological Society of India*, 64, 419-430, 2004, Sinha, R., D. Stueben, and Zsolt Berner.
 248. Late Quaternary geology and alluvial stratigraphy of the Ganga basin, *Himalayan Geology*, 26(1), 223-240, 2005, Sinha, R., Tandon, S.K., Gibling M.R., Bhattacharjee, P.S. and Dasgupta, A.S.
 249. Sedimentology and avulsion patterns of the anabranching Baghmata river in the Himalayan foreland basin, India. In: *Fluvial Sedimentology* (eds. Blum, M. and Marriott, S.), Special publication of the International Association of Sedimentologists, 35, 181-196, 2005, Sinha, R., Gibling, M.R., Jain, V. & Tandon, S.K.
 250. Influence of Dust Storm on the Aerosol Parameters over the Indo-Gangetic basin, *J. Geophys. Res.*, D20211, doi: 10.1029/2004JD004924, 2004, Dey, S., Tripathi, S. N., and R. P. Singh, and Holben, B.
 251. Variability of Aerosol Parameters in Kanpur city, Northern India, *J. Geophys. Res.*, Vol.109, D23206, doi: 10.1029/2004JD004966, 2004, Singh, R. P., Dey, S., Tripathi, S. N., Tare, V., and Holben, B.
 252. PRIMES is in P *Annals of Mathematics* Volume 160(2), Pages 781-793, 2004, Manindra Aggrawal, Neeraj Kayal and Nitin Saxena
 253. Tracking set-expression cardinalities over continuous update streams *VLDB Journal*, Volume 134, 354-369, 2004, Sumit Ganguly, Minos N Garofalakis and Rajeev Rastogi.

254. Allocating Servers in Infestations for Bounded Simultaneous Requests
Journal of Parallel & Distributed Computing, Vol. 64, 1113-1126, 2004,
A Bertossi, M.C Pinotti, R.Rizzi and Phalguni Gupta.
255. Efficient Encoding and Decoding Algorithms for Distributed Resembling,
Journal of Indian Society of Remote Sensing, Vol. 32 (3), pp. 269-286,
2004, Vamsi Kiran, C. Srinivasa Rao, Phalguni Gupta and R.
Ramakrishnan.
256. An Automated Seamless Mosaicing System of Multi-Charge Coupled
Devices of Panchromatic Data Journal of Indian Society of Remote
Sensing , Vol. 32 (1), pp103-113, 2004, R. Ramakrishna, S. Manthira
Moorthi, N. Padmanabhan and Phalguni Gupta.
257. A testbed for performance evaluation of load balancing strategies for web
server systems, Software Practice and Experience, pp 34:339-353, 2004,
Dheeraj Sanghi and Pankaj Jalote.
258. An Interactive Method for Extracting Grammar From Programs,
Software Practice and Experience, pp 34:433-447, 2004, R. Jain, S.
Kumar, Pankaj Jalote and S.Biswas.
259. Timeboxing A process model for iterative software development, Journal
of Systems and Software, pp 70:117-127, 2004, Pankaj Jalote.
260. Geon-driven shape models for holistic semantics International Journal of
Computer Aided Technology, V. 23, No 2-4, Page 101-107, 2004,
Amitabha Mukerjee and Hemant Muley.
261. Parallel Algorithm for Separable Permutation Discrete Applied
Mathematics, 146, 2005, pp 343-364, V.Yugandhar and Sanjeev Saxena.
262. The concept and operating principles of a mini custom power park, IEEE
Trans. Power Delivery, Vol. 19, pp. 1766-1774, 2004, A. Ghosh and A.
Joshi.
263. The protection of sensitive loads from interharmonic currents using
shunt/series active filters, Electric Power Systems Research, Vol. 73, pp.
187-196, 2005, A. K. Jindal, A. Ghosh and A. Joshi.
264. Simulation and test results for a cycloconverter-fed AC commutator-less
motor drive with a modified machine model, IEE Proceedings on Electric
Power Applications, Vol. 51, pp. 622-627, Sept. 2004, S.P. Das and A.K.
Chattopadhyay.
265. Novel quasi-resonant soft-switching inverter for low and high power
factor loads, IEE Proceedings on Electric Power Applications, vol. 151.,
pp. 451-459, July 2004, S.P. Das, S. Behera, and S. R. Doradla.

266. New parallel converter scheme for high power active power filters, IEE Proceedings on Electric Power Applications, vol. 151, no. 4, pp. 460-466, July 2004, S.P. Das, M. Basu and G. K. Dubey.
267. An Improved DVR with Optimum Series Voltage Injection for Minimum VA Requirements of UPQC, Journal of Systems Science and Engineering: PARITANTRA, vol. 10, pp. 49-54, Nov. 2004, S.P. Das and Y.Y. Kolhatkar.
268. Available Transfer Capability (ATC) Determination in a Competitive Electricity Market using Distribution Factors, Electric Power Components and Systems, Vol. 32, September 2004, pp. 927-939, S.C. Srivastava, S.N. Singh and Ashwani Kumar.
269. A Zonal Congestion Management Approach Using AC Transmission Congestion Distribution Factors, Electric Power System Research, Vol. 72 pp. 85-93, December 2004, S. C Srivastava, S.N. Singh and Ashwani Kumar.
270. Status and Future Directions of Electric Power Industry Restructuring in India, CPRI R&D Journal, Vol. II, 2005, S. C Srivastava and S.N. Singh.
271. Technology Development and Implementation for Power Distribution Automation System, Water & Energy International Journal (published by CBIP, New Delhi), Vol. 61, pp. 40-47, October-December 2004, R.P.Gupta and S.C. Srivastava.
272. Modeling of Generalized UPFC for Suitable Location and Power Flow Control, Iranian Journal of Electrical and Computer Engineering, Vol. 3, No.2, pp.103-110, 2004, S.N. Singh, J.G. Singh and V. Pant.
273. Dynamic Security Constrained Pool Dispatch in Competitive Power Market, International Journal of Power and Energy Systems, Vol. 25, pp. 6-13, 2005, S.N. Singh and A.K. David.
274. A Study of Improved Reverse Recovery in Power Transistor Incorporating Universal Contact, Solid-State Electronics, pp 655-667, 48, May 2004, R.S. Anand, B. Mazhari and J. Narain.
275. Technology Development and Implementation for Power Distribution Automation System, Water and Energy International Journal, India, Vol. 61, pp. 40-47, Oct-Dec 2004, R. P. Gupta and S.C. Srivastava.
276. Determination of the Gate Dielectric Capacitance of Ultrathin High-K Layers, Journal of The Electrochemical Society, vol. 151, pp G476-G481 2004, Samares Kar.
277. Surendra Rawat, Shaloo Rakheja, and Dharmendar Reddy, Characterization of Accumulation Layer Capacitance for Extracting Data

- on High-K Gate Dielectrics, IEEE Transactions on Electron Devices , Samares Kar.
278. Low rate code designs for multilevel signaling, IEEE Communications Letters, vol. 9, pp.166- 168, Adrish Banerjee and Daniel J. Costello, Jr.
 279. Indoor Optical Wireless Systems: Design Challenges, Mitigating Techniques and Future Prospects, IETE Technical Review, Vol.12, , pp.171-186, March-April 2004, Joseph John, Y.N. Singh and Chaturi Singh.
 280. A Modified Ring Dielectric Resonator with Improved Mode Separation and its Tunability Characteristics in MIC Environment, To be published in July, 2005 issue of IEEE Trans. on Microwave Theory and Technique, USA, Animesh Biswas, K.V. Srivastava, and V.V. Mishra.
 281. A CAD model of generalized high pass filter with transmission zeros using Chebyshev polynomial for RF application, Accepted for publication to International Journal of RF And Computer-Aided Engineering, John Wiley, USA, A. Biswas and P. Chandra.
 282. Visual Motor Coordination Using a Quantum Clustering based Neural Control Scheme, Neural Processing Letters, Volume 20: 11-22, 2004, Laxmidhar Behera and Nimit Kumar.
 283. Recurrent Quantum Neural Network Model to Describe Eye Tracking of Moving Targets, Foundations of Physics Letters, Laxmidhar Behera, Indrani Kar and A.C. Elitzur.
 284. Quantum Brain :A Recurrent Neural Network Model to Describe Eye Tracking of Moving Targets, Laxmidhar Behera, Indrani Kar, Avshalom Elitzur.
 285. Functional mapping with single integrate and fire neuron, International Journal of Computational Intelligence, 2005, P.K.Kalra, Abhishek Yadav, D.K. Mishra, R.N. Yadav, S. Ray.
 286. On The Use of Multiplicative Neuron in FeedForward Neural Networks, International Journal of Modelling and Simulation, R.N. Yadav, P.K. Kalra, J. John.
 287. Neural network learning with generalized mean based neuron model, Soft Computing Journal, 2005, P.K. Kalra, R.N. Yadav and J. John.
 288. Performance of a generalized neuron-based PSS in a multimachine power system, IEEE Transactions on Energy Conversion, Vol. 19, Issue: 3, pp. 625 - 632, Sept. 2004, P.K. Kalra, D.K. Chaturvedi, O.P. Malik.
 289. Experimental studies with a generalized neuron - based power system stabilizer, IEEE Transactions on Power Systems, Vol. 19, Issue:3, pp.1445 - 1453, Aug. 2004, D.K. Chaturvedi, O.P. Malik & P.K. Kalra.

290. Generalized Neuron - based Adaptive Power System Stabiliser, IEE Proceedings on Generation, Transmission and Distribution, Vol.151, pp. 213 - 218, March 2004, P.K. Kalra, D.K. Chaturvedi, O.P. Malik.
291. Monster in Newark: Philip Roth's Apocalypse in American Pastoral. Spec. Issue on Philip Roth, Studies in American Jewish Literature, Vol.23, 2004, pp. 55-66, G. Neelakantan
292. Caught Between the Goddess and the Cyborg: Third World Women and the Politics of Science in Three Works of Indian Science Fiction, The Journal of Commonwealth Literature, Vol. 39, No.3, 2004, pp. 119-138, Suchitra Mathur.
293. Towards Frame-Semantic Analysis of Hindi Corpora, Proceedings of SIMPLE-05, IIT Kharagpur, 2005, Achla M. Raina, Ankit Soni, Amitabha Mukerjee.
294. Semantic Underspecification in Hindi Complex Predicates, in R.M.K. Sinha (ed.) Proceedings of International Symposium on Machine Translation, NLP & TSS (iSTRANS-2004), Tata McGraw-Hill, New Delhi, 2004, Achla M Raina,
295. English Hindi Contrastive Polysemies, in R.M.K. Sinha (ed.) Proceedings of International Symposium on Machine Translation, NLP & TSS (iSTRANS-2004), Tata McGraw-Hill, New Delhi, 2004, Somshukla Banerjee, Achla M Raina, H. Karnick, BN Patnaik,
296. Learning Semanticality Constraints from Annotated Corpora, in R.M.K. Sinha (ed.) Proceedings of International Symposium on Machine Translation, NLP & TSS (iSTRANS-2004), Tata McGraw-Hill, New Delhi, 2004, Amitabha Mukerjee, Pushpraj Shukla, Sumit Kumar and Achla M. Raina,
297. Towards a Language Independent Encoding of Documents: A Novel Approach to Multilingual Question Answering, Bernadette Sharp (ed.), Natural Language Understanding and Cognitive Science, INSTICC Press, Portugal, 2004, pp.116-125, Pushpraj Shukla, Amitabha Mukerjee, Achla M Raina.
298. Anaphora Resolution in Multi-Person Dialogue, Michael Strube and Candy Sidner (ed.) Proceedings of the 5th SIGdial Workshop on Discourse and Dialogue, Association for computational Linguistics, Boston, Cambridge, 2004, pp. 47-51, Prateek Jain, Manav Mittal, Sumeet Kumar, A Mukerjee, Achla M Raina.
299. Obscenity and Offence in Ulysses, The Atlantic Literary Review, Vol.5, No.1-2, 2004, pp. 18-26, Mini Chandran.

300. Morality, Legality and Human Rights: Gandhi and Ambedkar in a Rights Framework, *Gandhi Marg*, Volume 26, No.3, Oct-Dec. 2004, pp. 293-304, M. Jha
301. Men's Understanding of women's Health Issues in Kanpur City, India: A Preliminary Research Report, *Population Review*, Vol.43, No.2, Section 2, 2004, A.K. Sharma and Rita Singh.
302. Dilemmas of Sustainable Development in India, D.C. Srivastva (ed.), *Readings in Environmental Ethics: Multidisciplinary Perspectives*, Rawat Publications, Jaipur, 2005, pp. 227-240. A. K. Sharma and Vigneswara Ilawarsan.
303. Meaning and Explanations of Mental Illness: A Social Representations Approach, *Psychology and Development Societies*, Vol. 17 No.1, 2004, Shikha Dixit.
304. The Common Conceptualization of Mental Health: A Qualitative Investigation of Categories of Meaning, *Proceedings of the National Seminar on Social Dimensions of Health*, Rawat Publications, Jaipur, Shikha Dixit.
305. Scepticism about Particular Identity: Strawson vs. Suresh Chandra, R. C. Pradhan (ed.), *The Philosophy of Suresh Chandra*, Indian Council of Philosophical Research, New Delhi, 2004, pp. 174- 195, C. A. Tomy.
306. Review of Urban Transportation in India, *Journal of Public Transportation*, Vol. 8, No. 1, pp. 79-97, Sanjay K. Singh.
307. Technological Advancement as a Threat to Human Value System, K. M. Mohapatra, (ed.), *Technology, Environment and Human Value: A Metaphysical Approach to Sustainable Development*, Concept Publishing Company, New Delhi, pp 27-38, 2004, B.Rath.
308. Revitalisation/ Renovation of Common Property Resource (CPR) Potentials as an Alternative Means to Improve the Economy of Orissa, in R. K. Panda (ed.) *Reviving Orissa Economy: Opportunities and Areas of Action*, APH Publishing Co., New Delhi, 2004, pp183-207, B. Rath, and N.C. Sahu.
309. Self-help Groups and Rural Non-Farm Employment Opportunities, Rohini Nayyar & Alakh N Sharma (ed.) *Rural Transformation in India: the Role of Non-farm Sector*, Institute For Human Development, New Delhi, 2004, pp 447-461, B. Rath.
310. Export-Growth Causality: An Empirical Investigation during Pre & Post Liberalisation Period in India, *Orissa Economic Journal*, Vol. XXXVI, 2004, pp.45-58, B. Rath and N.C. Sahu.

311. Comparison between Government Forestry Project and Social Forestry Project: A Case Study from Orissa, Boppana Nagarjuna (ed.) Economic Reforms and Perspective, Serial Publications, New Delhi, 2004, pp-593-621. S. K. Acharya & B. Rath.
312. Transformational Leadership, Competencies, Self-Control, and Performance as a Function of Perceived Organizational Culture in Service Organizations, B. N. Setiadi, A. Supratiknya, W. L. Lonner, and Y. H. Poortinga (eds.), Ongoing Themes in Psychology and Culture: Selected Papers from the Sixteenth International Congress of the International Association for Cross-Cultural Psychology, 2004, A. K. Sinha and S. Rai.
313. Emotional intelligence: Imperative for the Organizationally Relevant Outcomes. Psychological Studies, 49 (2-3), 2004, pp. 81-96, A. K. Sinha, and A. K. Jain.
314. Resilience for Well-being: The Role of Experiential Learning. Psychological studies (January Issue, Forthcoming), S. Srivastava, and A. K. Sinha.
315. Pioneering Advantage: Conceptualization, Proposition, and Analysis in Indian Context, Vikalpa: The Journal of Decision Makers, Volume 29, Number 3, July-September, pp. 15 - 33, 2004, Mittal, Sharad, and Sanjeev Swami.
316. Performance Appraisal at Kashipur Textiles Ltd. Journal of Advances in Management Research, 2, 1, 89-96, 2005, Varman, Rahul.
317. Development of a high resolution adaptive air quality model in three dimensions, In some aspects of environmental fluid mechanics: Proceedings of ICEFM'05, IIT Guwahati, March 3-5, 2005, Ghorai, S.
318. Isometric Multipliers Indian Academic Sciences of $L^p(G, X)$, Proc. 115, 103-109, 2005, Tewari, U.B., Chaurasia, P.K.
319. Existence, uniqueness and regularity of solutions to semilinear nonlocal functional differential problems. Nonlinear Anal. 57, no. 7-8, 1021-1028, 2004, Bahuguna, D.
320. Approximations of solutions to retarded integrodifferential equations, Electron. J. Differential Equations, No.136, 13, 2004, Bahuguna, D., Muslim, M..
321. Existence, uniqueness, and regularity of solutions to semilinear retarded differential equations, J. Appl. Math. Stoch. Anal. No.3, 213-219, 2004, Bahuguna, D.
322. Evolution Equations Arising in the Study of Materials with Memory, Vol. 97, pp. -14, 2005, Bahuguna, D., Shukla, R.K..

323. Numerical analysis of boundary-value problems for singularly perturbed differential-difference equations, Small shifts of mixed type with rapid oscillations, Comm. In Numerical Methods in Engineering, Vol.20, pp. 167-182, 2004, Kadalbajoo, M.K., Sharma, K.K.
324. ϵ -uniform fitted mesh method for singularly perturbed differential-difference equations: Mixed type of shifts with layer behaviour, International J. Computer Mathematics, Vol. 81, No. 1, pp. 49-62, 2004, Kadalbajoo, M.K., Sharma, K.
325. Numerical analysis of singularly perturbed delay differential equations with layer behaviour, Applied mathematics and computation, Vol. 157, No.1, pp. 11-28, 2004, Kadalbajoo, M.K., Sharma, K.K.
326. A parameter uniform numerical method for a singularly perturbed nonlinear delay differential equation of neutral type, International J. Computer Mathematics, Vol. 81, pp. 845-862, 2004, Kadalbajoo, M.K., Sharma, K.K..
327. Fitted mesh B-spline method for solving a class of singular singularly perturbed boundary value problems, International J. Computer Mathematics, Vol. 82, No. 1, 2005, Kadalbajoo, M.K., Aggarwal, V. K.
328. Variable mesh spline approximation method for solving singularly perturbed turning point problems having interior layers, J. Computational Methods in sciences & Engg, Vol. 2004, Kadalbajoo, M.K., Patidar.
329. Numerical solution of singular boundary value problems via Chebyshev Polynomials and B-spline, Applied mathematics & computation, Vol. No. pp. 2004, Kadalbajoo, M.K., Aggarwal, V.K.
330. Cubic spline for solving singular two-point boundary value problems, Applied Mathematis & Computation, Vol. 156, pp. 249-259, 2004, Kadalbajoo, M.K., Aggarwal, V.K..
331. Monotonic analysis over cones-II, Optimization, Vol. 53, pp. 529-547, 2004, Dutta, J., Martinez-Legaz, J.E., Rubinov, A..
332. Monotonic analysis over cones: I, Optimization, Vol. 53, pp. 129-146, 2004, Dutta, J., Martinez-Legaz, J.E., Rubinov, A.
333. Hermite-Hadamard type inequalities for increasing and convex-along rays functions, Analysis, Vol. 24, 171-181, 2004, Dutta, J., Dragomir, S.S., Rubinov, A..
334. Convexifactors, generalized convexity and vector optimization, Optimization, Vol. 53, pp. 77-94, 2004, Dutta, J., Chandra, S..
335. Regularity conditions and optimality in vector optimization, Numerical Functional Analysis and Optimization, Vol. 25, pp. 479-501, 2004, Dutta, J., Chandra, S., Lalitha, C.S.

336. Cowling-Price theorem and characterization of heat kernel on noncompact symmetric spaces, Proc. Indian. Acad. Sci. Math. Sci., 114, Bo. 2, 159-180, 2004, Ray, S.K., Sarkar, R.P.
337. Estimation of the entropy of a multivariate normal distribution., Journal of Multivariate Analysis, Vol. 92, pp. 324-334, 2005, Misra, N., Singh, H., Demchuk, E..
338. Reliability properties of reversed residual lifetime, Communications in Statistics Theory & Methods, 33, 991-992, 2004, Misra, N., Paul, P., Nanda, A.K., Singh, H., Nanda, A.K..
339. The LINEX risk of maximum likelihood estimators of parameters of normal populations having order restricted means, Sankhya, Vol. 66, Part 4, 1-26, 2004, Misra, N., Iyer, S.K., Singh, H..
340. Estimation of the entropy of a multivariate normal distribution., Journal of Multivariate Analysis, 92, 324-334, 2004, Misra, N., Singh, H., Demchuk, E..
341. Blood flow in a vessel with asymmetric aneurysm, Int. J. of Applied Mechanics and Engineering, Vo. 9(3), pp. 505-521, 2004, Rathish, B.V.K., Yamaguchi, J., Liu, H., Himeno, R..
342. On the development of parallel sparse CGM solver for CFD computations on ANU-Cluster, Applied Mathematics and Computation, Vol. 160, Issue 3(27), pp. 739-761, 2005, Rathish, B.V.K., Bipin, K..
343. Parallel computation on natural convection in trapezoidal enclosures, Mathematics & Computers in Simulation, 65(3), pp. 221-229, April 22, 2004, Rathish, B.V.K., Bipin, K..
344. Krylov subspace solvers in parallel numerical computation of solutions to PDEs modelling heat transfer applications, Numerical Heat Transfer – A, Vol. 45, pp. 479-503, 2004, Rathish, B.V.K., Bipin, K., Shalini, Mehra, M., Chandra, P., Raghavenra, V., Singh, R.K., Mahendra, A.
345. A Wavelet-Taylor Galerkin method for Parabolic and Hyperbolic Partial Differential Equation, Int. J. Computational Methods, 1-23, Feb. 16, 2005, Rathish, B.V.K., Mehra, M..
346. A new class of stabilized mesh-free finite elements for the approximation of the stokes problem, Numerical Methods for Partial Differential Equations, pp. 703-722, 2004, Rathish, B.V.K., Srinivas, V.V.K., Das, P.C.,.
347. Free convection in a thermally stratified non-Darcian wavy enclosure, Journal of Porous Media, Vol. 7, issue 4, pp. 13-30, 2004, Rathish, B.V.K., Shalini.

348. Double Diffusive natural convection induced by a wavy surface in a stratified porous medium, *Journal of Porous Media*, Vol. 7, issue 4, pp. 31-40, 2004, Rathish, B.V.K., Shalini..
349. Analytical and numerical solutions of a coupled nonlinear system arising in a three-dimensional rotating flow, *Int. J. Non-linear Mechanics*, 39, pp. 13-24, 2004, Rathish, B.V.K. Vajiravelu..
350. Numerical simulation of the effect of fluid inertia on slider bearing lubrication with heat conduction to the pad, *South East Asian Journal of Math. & Math. Sc.* Vol. 2, No.2, pp. 57-62, 2004, Rathish, B.V.K., Sinha, Prawal, Rao, P.S.
351. Modelling the spread of Bacterial disease: Effect of service providers from environmentally degraded region, *Applied Mathematics and Computation* Vol. 160, pp. 615-647, 2005, Chandra, P., Ghosh, M., Sinha, Prawal., Shukla, J.B..
352. Modelling the spread of carrier dependent infectious diseases with environmental effect, *Applied Mathematics and Computation* Vol. 158, pp. 385-402, 2004, Chandra, P., Sinha, Prawal, Shukla, J.B., Ghosh, M..
353. Risk and Pitman closeness properties of feasible generalized double k-class estimators in linear regression models with non-spherical disturbances under balanced loss Function, *Journal of Multivariate Analysis*, 90, 229-256, 2004, Shalabh., Chaturvedi, A..
354. On the usefulness of knowledge of error variances in the consistent estimation of an unreplicated ultrastructural model, *Journal of Statistical Computation & Simulation*, 74, 6, pp. 391-417, 2004, Shalabh, Leon J. Gleser and Ori Rosen..
355. Analysis of progressively censored competing risks data, *Handbook of Statistics on Survival Analysis* , Vol. 23, 331-348, 2004, Kundu, D., Kannan, N., Balakrishnan..
356. Discriminating between gamma and generalized exponential distributions, *Journal of Statistical Computation and Simulation*, Vol. 74, No.2, 107-121, 2004, Kundu, D., Gupta, R.D.
357. Amplitude modulated signal model for analyzing non-stationary speech data, *Statistics*, Vol. 38, No. 5, 439-456, 2004, Kundu, D., Nandi, S., Iyer, S.K..
358. A note on estimating the parameters of fundamental frequency model, *Signal Processing*, Vol. 84,653-661, 2004, Kundu, D., Nandi, S..
359. A characterization of the (reversed) hazard rate distributions, *Communications in Statistics – Theory and Methods*, Special issue on

- Characterizations, Vol. 33, No. 12, 3095-3102, 2004, Kundu, D., Gupta, R.D.
360. Parameter estimation of the partially complete time and type of failure data, Biometrical Journal, Vol. 46, No. 2, 165-179, 2004, Kundu, D..
361. Asymptotic properties of the least squares estimators of the parameters of the chirp signals, Annals of the Institute of Statistical Mathematics, Vol. 56, No. 3, 529-544, 2004, Kundu, D., Nandi, S..
362. Computational aspects in statistical signals processing, Statistical Computing; Existing Methods and Recent Developments, 371-393, 2004, Kundu, D., Basu, A.
363. A note on the asymptotic properties of the least squares estimators of the parameters of the multidimensional exponential signals, Sankhya, Vol. 66, No.3, 528-535, 2004, Kundu, D..
364. Discriminating between the Weibull and Log-Normal distributions, Naval Research Logistics, Vol. 51, No.6, 893-905, 2004, Kundu, D., Manglick, A..
365. Discriminating between the log-normal and generalized exponential distributions, Journal of Statistical Planning and Inference, Vol. 127-213, 2005, Kundu, D., Manglick, A., Gupta, R.D..
366. Macroscopic models for gas stirred ladles: a review, ISIJ International, Vol.44, 2004, pp.447-461, D.Mazumdar, and J.W.Evans.
367. A model for estimating exposed plume eye area in steel refining ladles covered with thin slag, Materials and Metallurgical Transactions, Vol.35B, 2004, pp.400-404, D.Mazumdar, and J.W.Evans.
368. An assessment of flow and RTD computations in steelmaking tundish system, ISIJ International, 2004, Vol. 44(8), pp.1234-1240, Anil Kumar, S.C.Koria and D.Mazumdar.
369. A computational assessment of viscosity measurement in rotating viscometer through exact numerical simulation, Materials and Metallurgical Transactions B, Vol.35B(4), 2004, pp.754-758, M.Madan and D.Mazumdar.
370. Mathematical modeling fluid flow and mixing phenomena in a twin plug stirred ladle, ISIJ International, Vol. 45, 2005, pp.677-685, M.Madan, D.Satish and Dipak Mazumdar..
371. Effect of Grain Size on the Tribological Behavior of Nanocrystalline Nickel: Materials Science and Engineering, 373 (2004) 370-373, R. Mishra, B.Basu and R Balasubramaniam.
372. On the Astronomical Significance of the Delhi Iron Pillar: Current Science, 86 (2004) 1134-1142, R. Balasubramaniam and M.I. Dass.

373. Microstructural Evolution in Iron Aluminide Fe-28Al-2C after High Temperature Hydrogen Treatment: *Materials and Metallurgical Transactions*, 35A (2004) 1789-1798, T. Laha, R. Balasubramaniam, A. Tewari, M.N. Mungole and R.G. Baligheid.
374. On the Original Image atop the Delhi Iron Pillar: *Indian Journal of History of Science*, 39 (2004) 177-203, M.I. Dass, R. Balasubramaniam and E.M. Raven.
375. Conservation Issues Relating to the Forge-Welded Iron Cannon at Thanjavur: *Conservation of Cultural Property in India, Journal of the Indian Association for the Study of Conservation of Cultural Property*, 32-33 (1999-2000) 75-81, A. Saxena and R. Balasubramaniam.
376. Effect of nanocrystalline grain size on the electrochemical and corrosion behavior of nickel: *Corrosion Science*, 46 (2004) 3019-3029, R. Mishra and R. Balasubramaniam.
377. Electrochemical behavior of Fe-28Al-2C after high temperature hydrogen treatment: *Journal of Corrosion Science and Engineering*, 6 (2004) paper 83, T. Laha, R. Balasubramaniam, A. Tewari, M.N. Mungole and R.G. Baligheid.
378. Electrochemical Behaviour of Intermetallic Ti₃Al based Alloys in Simulated Body Fluid Environment: *Intermetallics*, 12 (2004) 679-682, A. Choubey, B. Basu and R. Balasubramaniam.
379. Tribological Behaviour of Ti-based Alloys in Simulated Body Fluid Solution at Fretting Contacts: *Materials Science and Engineering A*, 379 (2004) 234-239, Choubey, B. Basu and R. Balasubramaniam.
380. Effect of replacement of V by Nb and Fe on the electrochemical and corrosion behaviour of Ti-6Al-4V: *Journal of Alloys and Compounds*, 381 (2004) 288-294, A. Choubey, R. Balasubramaniam and B. Basu.
381. Electrochemical Behavior of Electrodeposited Ni-WC Composite Coatings: *Surface Coatings Technology*, 187 (2004) 93-97, M. Surender, R. Balasubramaniam and B. Basu.
382. The Importance of Summer Solstice at Udayagiri: *Bharti*, 28 (2003-4) 71-86, A.M. Sharan and R. Balasubramaniam.
383. Tribological Behaviour of Electrodeposited Ni-WC Composites Coatings: *Metals, Materials and Processes*, 16 (2004) 451-458, M. Surender, B. Basu, M. N. Mungole and R. Balasubramaniam.
384. Wear characterization of electrodeposited Ni-WC composite coatings: *Tribology International*, 37 (2004) 743-749, M. Surender, B. Basu and R. Balasubramaniam.

385. Detecting Non -uniform Phosphorus Distribution in Ancient Indian Iron by Color Metallography: *Current Science*, 87 (2004) 650-653, P. Piccardo, M.G. Ienco, R. Balasubramaniam and P. Dillmann.
386. Date of Sanakanika Inscription and its Astronomical Significance for Archaeological Structures at Udayagiri: *Current Science*, 87 (2004) 1562-1566, A.M. Sharan and R. Balasubramaniam.
387. Effect of replacement of V by Fe and Nb on passive film behaviour of Ti-6Al-4V in simulated fluid conditions: *Journal of Alloys and Compounds*, 389 (2005) 144-152, A.K. Shukla, R. Balasubramaniam and S. Bhargava.
388. Material Selection of High-Level Nuclear Waste Storage Canisters: Lessons from Archaeometallurgy (Letter): *Current Science*, 88 (2005) 337-338, R. Balasubramaniam.
389. Passive Film Behaviour of CP Titanium, Ti-6Al-4V and Ti-13.4Al-29Nb alloys in Simulated Human Body Conditions: *Intermetallics*, 13 (2005) 631-637, A.K. Shukla, R. Balasubramaniam and S. Bhargava.
390. Development of ZrO₂-TiB₂ Composites: role of residual stress and starting powders, *J. Alloys and Compounds*, 365 [1-2] (2004) 266-270, B. Basu, J. Vleugels and O. Van Der Biest.
391. Transformation behaviour of tetragonal zirconia: role of dopant content and distribution; *Mat. Sc. Engg. A*, 366 [2] (2004) 338-347, B. Basu, J. Vleugels and O. Van Der Biest.
392. Microstructure-Toughness-Wear relationship of tetragonal zirconia ceramics, *J. Eur. Cer. Soc.* 24 [7] (2004) 2031-2040, B. Basu, J. Vleugels and O. Van Der Biest.
393. Development of WC-ZrO₂ Nanocomposites by Spark Plasma Sintering, *J. Am. Cer. Soc.*, 87 [2] (2004) 317-319, B. Basu, Jong-Heun Lee and Doh-Yeon Kim.
394. ZrO₂-Al₂O₃ composites with tailored toughness; *J. Alloys and Compounds*, 372 (2004) 278-284, B. Basu, J. Vleugels and O. Van Der Biest.
395. Effect of grain size on the tribological behavior of Nanocrystalline nickel; *Materials Science and Engineering A*; 373 [1-2] (2004) 370-373, R. Mishra, B. Basu and R Balasubramaniam.
396. Wear Characterization of Electrodeposited Ni-WC Composite Coatings; *Tribology International* 37 (2004) 743-749, M. Surender, B. Basu and R Balasubramaniam.
397. Tribological behaviour of Ti-based Alloys in simulated body fluid solution at fretting contacts; *Materials Science and Engineering A*, 379

- (2004) 234-239, Animesh Choubey, Bikramjit Basu and R. Balasubramaniam.
398. Friction and Wear Behaviour of DLC Coated Biomaterials in Simulated Body Fluid Solution at Fretting Contacts; Key Engg. Materials, 264-268 (2004) 2115-2118, Choubey and A. D.-Reisel and B. Basu.
399. Processing of Nanoceramics and Nanoceramic Composites: New Results; Key Engg. Materials, 264-268 (2004) 2293-2296, Bikramjit Basu, Jong-Heun Lee and Doh-Yeon Kim.
400. Fretting wear behavior of Ti(CN)-based advanced cermets; Key Engineering Materials, 264-268 (2004) 1115-1119, D. Sarkar, B. V. Manoj Kumar, S. Ahn, S. Kang and B. Basu.
401. Enhancing the fracture toughness of Y-stabilised ZrO₂: role of dopant distribution; Key Engg. Materials 264-268 (2004) 817-820, Nitesh Gupta, Prafulla Mallik, Mike Lewis and Bikramjit Basu.
402. Toughness tailoring of yttria-doped zirconia ceramics, Mat. Sc. Engg. A 380 (2004) 215-221, B. Basu, J. Vleugels and O. Van Der Biest.
403. Electrochemical Behavior of Intermetallic Ti₃Al based Alloys in Simulated Human Body Fluid Environment, Intermetallics, 12 [6] (2004) 679-682, Animesh Choubey, B. Basu and R. Balasubramaniam.
404. Development of Nanocrystalline wear resistant Y-TZP ceramics, J. Am. Cer. Soc., 87 [9] (2004) 1771-1774, Bikramjit Basu, Jong-Heun Lee and Doh-Yeon Kim.
405. Electrochemical Behavior of Electrodeposited Ni-WC Composite Coatings; Surface and Coating Technology, 187 (2004) 93-97, M. Surender, B. Basu and R. Balasubramaniam.
406. Y-TZP ceramics with optimised toughness: New results; J. Alloys and Compounds, 379 (2004) 228-232, Nitesh Gupta, Prafulla Mallik and Bikramjit Basu.
407. Microstructure and Mechanical Properties of ZrO₂-TiB₂ composites; Journal of Materials Science, 39 [20] (2004) 6389-6392, B. Basu, J. Vleugels and O. Van Der Biest.
408. Effect of Replacement of V by Nb and Fe on the Electrochemical and Corrosion Behaviour of Ti-6Al-4V in Simulated Physiological Environment; Journal of Alloys and Compounds, 381 (2004) 288-294, Choubey, B. Basu and R. Balasubramaniam.
409. S-Phase Sialon ceramics: Microstructure and Properties, Silicate Industriels, Ceramic Science and Technology – special issue, 69 (2004) 225-231, M. Lewis, B. Basu, M. E. Smith, M. Bunyard and T. Kemp.

410. The role of Tribochemistry on Fretting wear of Mg-SiC particulate composites; *Composites, Part A*, 36 (2005) 13-23, V. Manoj Kumar, B. Basu, V S R Murthy and M. Gupta.
411. Evolution in friction and wear of fretting wear of Mg-SiC_p composites, Influence of fretting duration; *Journal of Materials Research* 20 [4] (2005) 801-812, B. V. Manoj Kumar and B. Basu.
412. Tribological Properties of WC-ZrO₂ Nanocomposites. *Journal of the American Ceramic Society*, 88[3] (2005) 691-697, T. Venkateswaran, D. Sarkar and B. Basu.
413. Tribological properties of in-situ Ti-aluminide reinforced Al-based in-situ metal matrix composites; *Intermetallics* 13 (2005) 733-740, Debdas Roy, Bikramjit Basu and Amitava Basu Mallick.
414. Pressureless sintering and Tribological properties of WC-ZrO₂ composites; *J. Eur. Cer. Soc.* 25 (2005) 1603-1610, B. Basu, T. Venkateswaran and D. Sarkar.
415. Strategies for development of process control models for hot metal desulphurization, Conventional and AI techniques *Materials and Manufacturing Processes*, Vol. 20, 2005, pp. 407-419, B.Deo, R.K.Lingamaneni, A.Dey and R.Boom.
416. Effect of MgO and Al₂O₃ variations in oxygen steelmaking (BOF) on slag morphology and phosphorus distribution *Ironmaking and steelmaking* Vol. 32, 2005, pp. 54-60, B.Deo, J.Halder, B.Snoeijer. A.Overbosch and R.Boom.
417. The factors affecting powder consumption of mould fluxes, *Scand. J. Met.* , Vol. 3, 2004, pp. 85-91, R.Saraswat, A.B.Fox, K.C.Mills, P.D.Lee, B.Deo.
418. Analysis of a laboratory jigging system for improved performance *Minerals Engineering*, 2005, A.K. Mukherjee, V.K. Dwivedi, and B.K. Mishra.
419. Two different modeling strategies for the jig bed stratification, *TATA SEARCH*, pp.39-44, 2005, A. K. Mukherjee, B. K. Mishra, and S.P. Mehrotra.
420. On the microstructural changes accompanying high strain amplitude fatigue tests on a multiphase medium carbon microalloyed steel, *J. Mat.Sci.Letters* 40: No. 2: pp. 499-502: 2005, Sankaran S, Gouthama, Sandeep Sangal and K. A. Padmanabhan.
421. Heating Effect on Steady and Unsteady Horizontal Laminar Flow of Air Past a Circular Cylinder, *Physics of Fluids*, Vol. 16, pp. 4331-4345, 2004, J. M. Shi, D. Gerlach, M. Breuer, G. Biswas and F. Durst.

422. Quasi-Static Bubble Formation on Submerged Orifices, International Journal of Heat and Mass Transfer, Vol. 48, pp. 425-438, 2005, D. Gerlach, G. Biswas, F. Durst and V. Kolobaric.
423. Numerical Prediction of Flow and Heat Transfer in a Channel in the Presence of a Built-in Wake Splitter, International Journal of Heat and Mass Transfer, Vol. 48, pp. 439-453, 2005, S. Tiwari, D. Chakraborty, G. Biswas and P.K. Panigrahi.
424. Planar Simulation of Bubble Growth in Film Boiling in Near-Critical Water Using a Variant of the VOF Method, Journal of Heat Transfer (ASME), Vol. 126, pp. 329-338, (2004), D. Agarwal, S.W.J. Welch, G. Biswas, and F. Durst.
425. Backward-Facing Step Flows for Various Expansion Ratios at Low and Moderate Reynolds Numbers, Journal of Fluids Engineering (ASME), Vol. 126, pp. 362-374, (2004), G. Biswas, M. Breuer and F. Durst.
426. Tool Wear Prediction in Turning, Journal of Materials Processing Technology, 153-154, pp. 276-280, (2004), S.K. Choudhury, P.Srinivas.
427. Microstructural Simulation of Asphalt Materials: Modeling and Experimental Results, ASCE Journal of Materials in Civil Engineering, 16:2, pp. 107-115, April 1, 2004, Sadd, M., H., Dai, Q., Parameswaran, V., and Shukla, A..
428. Influence of Nonlinear Elastomer on Isolated Lag Dynamics and Rotor/Fuselage Aeromechanical stability, Journal of Aircraft- AIAA, Vol. 41, (2004) pp. 1449-1464, G. Pohit, C.Venkatesan, A.K.Mallik.
429. Visualization of the Convective Field above a Heated Cylinder by a Laser Schlieren Technique, International Communications in Heat and Mass Transfer, Vol. 32(3-4), pp. 520-528, February 2005, Atul Srivastava, S. Dutta, P.K. Panigrahi and K. Muralidhar.
430. Buoyancy-driven Convection in Superposed Fluid Layers in an Octagonal Cavity, International Journal of Thermal Sciences, Vol. 43(9), pp. 849-864, 2004, Sunil Punjabi, K. Muralidhar and P.K. Panigrahi.
431. Imaging of a Convective Field in a Rectangular Cavity using Interferometry, Schlieren and Shadowgraph, Optics and Lasers in Engineering, Vol. 42(4), pp. 469-485, 2004, Atul Srivastava, A. Phukan, P.K. Panigrahi and K. Muralidhar.
432. Interferometric study of buoyancy-driven convection in a circular fluid layer, Heat and Mass Transfer, Vol. 41(4), pp. 353-359, February 2005, Atul Srivastava, K. Muralidhar and P.K. Panigrahi.

433. Modeling of Transport Phenomena in a Low Pressure CVD Reactor, Journal of Crystal Growth, Vol. 267(3-4), pp. 598-612 (2004), A.K. De, K. Muralidhar, V. Eswaran and V.K. Wadhawan.
434. Comparison of interferometry, schlieren and shadowgraph for visualizing convection during the growth of a KDP crystal from its aqueous solution, Journal of Crystal Growth, Volume 267(1-2), pp. 348-361 (2004), Atul Srivastava, K. Muralidhar and P.K. Panigrahi.
435. A schlieren study of the effect of ramp arte and rotation on convection around a crystal growing from an aqueous solution, Journal of Crystal Growth, Vol. 27(1-2), pp. 191-208 (2005), Atul Srivastava, K. Muralidhar and P.K. Panigrahi.
436. Flow and Heat Transfer in the Wake of a Surface-mounted Rib with a Slit, accepted for publication in Experiments in Fluids, Vol. 37, pp. 701-719, (2004), A. Tariq, P.K. Panigrahi and K. Muralidhar.
437. Estimation of Convective Heat Transfer Coefficient from Transient Liquid Crystal Data using an Inverse Technique, Inverse Problems in Science and Engineering, Vol. 13(2), pp. 133-155 (2005), M. K. Das, A. Tariq, P.K. Panigrahi and K. Muralidhar.
438. Heat Transfer from an Array of Cylinders in Oscillatory Flow, International Journal of Heat Exchangers, Vol. 5, pp 239-264, December 2004, K. Muralidhar and K. Suzuki.
439. Experimental determination of viscosity of abrasive flow machining media, International Journal of Manufacturing Technology and Management, Vol. 7(2-4), pp. 142-156 (2005), A. Agrawal, V.K. Jain and K. Muralidhar.
440. Effect of orientation on the wake of a square cylinder at low Reynolds numbers, Indian Journal of Engineering and Material Sciences, Vol. 11, pp. 447-459, December 2004, S. Dutta, P.K. Panigrahi and K. Muralidhar.
441. Simulation and experimental verification of solutal convection in the initial stages of crystal growth from an aqueous solution, Indian Journal of Pure and Applied Physics, Vol. 43, pp. 24-33, January 2005, S. Verma, A. Srivastava, V. Prabhakar, K. Muralidhar and V.K. Wadhawan.
442. Theoretical analysis of thermal stresses in electro-discharge diamond grinding, Mach Sci Technol, 8(1), 119-140, 2004, P.M. Dixit, V. Yadava & V.K. Jain.
443. Parametric study of temperature distribution in electro-discharge diamond grinding, Materials and Manufacturing Processes, 19(6), 1071-1101, 2004, P.M. Dixit, V. Yadava & V.K. Jain.

444. Temperature determination on the work piece surface during diamond surface grinding: FEM approach, *Manufacturing Technology and Research, an International Journal*, 1(1), 29-34, 2005, P.M. Dixit, V. Yadava & V.K. Jain.
445. Temperature distribution in the workpiece due to electro-discharge diamond surface grinding using FEM, *International Journal of Manufacturing Technology and Management*, 7(2/3/4), 246-267, 2005, P.M. Dixit, V. Yadava & V.K. Jain.
446. Lubrication Oil Tribology Of A Biodiesel-Fuelled CI Engine *Journal of Automobile Engineering, Proceedings of the I MECH E Part D, Volume 219, Number 5*, pp 703-714, May 2005, Avinash Kumar Agarwal.
447. Assessment of Lubricity of Biodiesel Blends in Reciprocating Wear Mode SAE Paper No 2004-01-3068, *SAE Transactions 2004, Journal of Fuels & Lubricants, Section 4*, Jayashree Bijwe, Avinash Kumar Agarwal, Atul Sharma.
448. Stochastic simulation of Active Grain density in Abrasive Flow Machining *J. Materials Processing Technology*, 152 (2004) 17-22, R.K.Jain and V.K.Jain.
449. Design and Development of magnetorheological abrasive flow finishing (MRAFF) process, *Int. J. of Mach. Tools Manufacture*, Vol. 44, 2004, pp.1019-1029, Sunil Jha, and V.K.Jain.
450. Electrochemical deephole drilling in super alloy for turbine application , *J. of Materials Processing Tech.*, Vol.149, 2004, pp. 445-452, Dayanand S. Bilgi, V.K.Jain, R.Shekhar and Shefali Mehrotra.
451. Parametric Study of magnetic abrasive finishing process, *J. of Materials Processing Tech.*, Vol.149, 2004, pp. 22-29, Dharendra K. Singh, V.K.Jain and V.Raghuram.
452. Excited turbulent flow behind a square rib, *Journal of Fluids and Structures*, 20(2) pp. 1-19 (2004), Panigrahi, P. K. and Acharya, S.
453. Wavelet investigation of coherent structures behind permeable rib, *WSEAS Transactions on Systems*, 10(3), 3104-3107 (2004), Panigrahi, P. K., Schroeder A. and Kompenhans, J..
454. Optimum Part Deposition Orientation in Fused Deposition Modeling, *International Journal of Machine Tools and Manufacture*, 44 (6) 585-594, 2004, Trimurthulu, K., Pandey, P. M., Reddy, N. V.
455. Optimal Part Deposition Orientation in FDM by using a Multi-criteria Genetic Algorithm, *International Journal of Production Research*, 42 (19) 4069-4089, 2004, Pandey, P. M., Thrimurthulu, K., Reddy, N. V.

456. Prediction of Internal Defects in Plane Strain Rolling, *Journal of Materials Processing Technology*, 159 (2004) 409-417, Abdul Razak, A., Reddy, N. V.
457. Correlation between the extraordinary Hall constant and electrical resistivity minima in Co-rich metallic glasses, *Phys. Rev. B* 69, 214417, 2004, A.K. Majumdar, P. Khatua, K.D.D. Rathnayaka, D. G. Naugle.
458. Evidence of spin-wave demagnetization in Fe-Cr GMR multilayers, *J. Appl. Phys.* 97, 033910 (2005), R.S. Patel, A.K. Majumdar, A.F. Hebard and D. Temple.
459. Crystallization studies on AgI-Ag₂O MoO₃ superionic system synthesized by melt-quenching and Mechanical Milling, *J. Phys. Chem. Solids*, 66, 783-792 (2005), A. Dalvi, A.M. Awasthi, S. Bhardwaj and K. Shahi.
460. Formation of superionically conducting amorphous phase in mechanically milled AgI-Ag₂IO-V₂O₅ system, *J. Nanocryst. Solids*, 341, 124-132 (2004), A. Dalvi and K. Shahi.
461. Near-infra-red photonic bandgaps and non-linear effects in negative magnetic materials, S.O'Brien, *Phys. Rev. B* 69, 241101(R(R) (2004), D. McPeake, S. Anantha Ramakrishna and J.B. Pendry.
462. On the dual symmetry between absorbing and amplifying random media, *Phys.* 62, 1273-1279 (2004), S.A. Ramakrishna, *Pramana J.*
463. Physics of negative refractive index materials, *Rep. Prog. Phys.* 68, 449-521 (2005), S.A. Ramakrishna.
464. A miniature Hall sensor based ac-susceptometer for measurements of vortex and superfluid dynamics in superconducting films, *Rev. Sci. Instr.* 75, 141 (2004), K. Senapati, S. Chakrivarti, Lenna K. Sahoo and R.C. Budhani.
465. Influence of buffer layers on superconductivity in La_{1-z}Sr_xCuO₄ epitaxial films, *Physica C* 415, 74 (2004), R.K. Rakshit, R.C. Budhani, V.N. Kulkarni, M. Sullivan and R.L. Greene.
466. Current induced metallic behavior in Pr_{0.5}Ca_{0.5}MnO₃ films: Competition between Joule heating and non-linear conduction, *Phys. Rev. B* 70, 134403 (2004), P. Padhan, W. Prellier, Ch. Simon and R.C. Budhani.
467. Clean limit pair breaking and two dimensional vortex dynamics in ferromagnet-superconductor heterostructures, *Phys. Rev. B* 70, 174506 (2004), K. Senapati and R.C. Budhani.
468. Magnetotransport in epitaxial films of the degenerate semiconductor Zn_{1-x}Co_xO, *J. Phys. Condens. Matter*, 17 75 (2005), R.C. Budhani, Prita Pant, R.K. Rakshit, K. Senapati, S. Mandal, N.K. Pandey and J. Kumar.

469. Causality Violation in Non-local Quantum Field Theory, *J. Mod. Phys. A* 19, 3409 (2004), Ambar Jain and S.D. Joglekar.
470. Relating Calculations and Renormalization in Axial and Lorentz Gauges and Gauge-independence, *J. Mod. Phys. A* 20 (2005), S.D. Joglekar.
471. Experimental and theoretical investigation of fluorescence photobleaching and recovery in human breast tissues and tissue phantoms, *Applied Optics*, 43. 5. 1044-1052 (2004), Sharad Gupta, Bhawna, P. Goswami, A. Pradhan and A. Agarwal.
472. Depolarization of light in a multiply scattering medium: Effect of the refractive index of a scatterer, *Physical Review E* 70, 066607 (2004) , N. Ghosh, A. Pradhan, P.K. Gupta, Sharad Gupta, V. Jaiswal and R.P. Singh.
473. Nanoprecipitation in transport matrices using an energetic ion beam, *Nanotechnology*, 15, 1620-1624 (2004), T. Mohanty, A. Pradhan, S. Gupta and D. Kanjilal.
474. Polarized fluorescence technique for tumor diagnosis, 92nd Indian Science Congress, Invited Talk in Physical Sciences Section, Jan 3-7, 2005, A. Pradhan.
475. Nuclear localization and in-situ DNA damage by mycobacterium tuberculosis nucleoside-diphosphate kinase, *J. Biol. Chem.* 279(48), 50142 (2004) , A.K. Saini, K. Maithal, P. Chand, S. Chowdhury, R. Vohra, A. Goyal, G.P. Dubey, P. Chopra, R. Chandra, A.K. Tyagi, Yogendra Singh and Vibha Tandon.
476. Preparation and characterization of pure and manganese doped layered $\text{Na}_{1.9}\text{Li}_{0.1}\text{Ti}_3\text{O}_7$, *Proc. Ferroelectrics and Dielectrics (NSFD-XIII)*, Allied Pub. Pvt. Ltd., New Delhi, pp 39-42 (2004), D. Pal, P. Chand and Shripal.
477. Accurate parametric modeling of folded waveguide circuits for millimeter-wave traveling wave tubes, *IEEE Transactions on Electron Devices* (2005) [to appear] , J.H. Booske, M.C. Converse, C.L. Kory, T. Chevalier, D.A. Gallagher, K.E. Kreischer, V.O. Heinen, S. Bhattacharjee.
478. The Virgo alignment puzzle in propagation of radiation on cosmological scales, *Int. J. Mod. Phys. D*13, 1857 (YYYY), J.P. Ralston and Pankaj Jain.
479. Peculiar insulator-to-metal transition in tetrahedral semiconductors on lattice expansion, *Int. J. Mod. Phys. B*18, 975 (2004), S. Shukla, D. Kumar, N.N. Shukla and R. Prasad.
480. Collective traffic-like movement of ants on a trail: dynamical phases of phase transitions, *Journal of the Physical Society of Japan*, 73, 2979

- (2004), A. Kunwar, A. John, K. Nishinari, A. Schadschneider and D. Chowdhury.
481. Evolving eco-system: a network of networks, *Physica A*, 346, 68 (2005), D. Chowdhury and D. Stauffer.
482. White OLED based on spectral broadening in electroluminescence due to formation of interfacial exciplexes *Applied Physics Letter* (2004) , To appear in 14March 2005 issue, Samarendra P Singh, Y. N. Mohapatra, and M. Qureshi, and S. Sundar Manoharan.
483. Photogenerated time of flight mobility measurements in novel electron transport material: 2,5-dibenzothiazolyl thiophene, *Phy. Stat. sol. (a)* 201, R60-R63 (2004), M. Qureshi, S. Sundar Manoharan, Samarendra P Singh, and Y. N. Mohapatra.
484. Electroluminescent properties of dimeric bis(2-(2'-hydroxyphenyl) benzthiazolate) zinc (II) complex, *Solid State communications* 133, 305-309 (2005), M. Qureshi, S. Sundar Manoharan , Samarendra P Singh, and Y. N. Mohapatra.
485. Changes in the Leakage currents in BST/ZrO₂ multilayers due to modulations in oxygen concentration, *Appl. Phys. Lett.*, Vol ,85, No. 21 (2004), S. K. Sahoo, D. C. Agrawal, Y. N. Mohapatra, S. B. Majumder and Ram S. Katiyar
486. Photoluminescence of phosphors prepared by low temperature hydrothermal route, Sandesh Gupta, *Journal of the Electrochemical Society*, Vol. 151 (11), pp H239-H242, (2004) , D.C. Agarwal and Y.N. Mohapatra.
487. Depolarization Characteristics of Sol-Gel Pb_{1.05}(Zr_{0.53}Ti_{0.47})O₃ Thin Film, *Ferroelectrics*: 306:71-77 (2004) V. Ramesh, Y.N. Mohapatra, and D.C. Agarwal.
488. Low Temperature Dielectric Properties of BST/ZrO₂ Multilayer Films, *Proceedings of Materials Research Society*, 784, C3.7.1 (2004) , S.K. Sahoo, D.C. Agrawal, S.B. Majumder, R.S. Katiyar, and Y.N. Mohapatra.
489. Coexistence of magnetic order and charge density wave in a Koando lattice Yb₅Ir₄Si₁₀, *Phys. Rev. B* vol. 71 (2005) p. 060406 (R), Z. Hossain, M. Schmidt, W. Schnelle, H.S. Jeevan, C. Geibel, S. Ramakrishnan, J.A. Mydosh and Y. Grin,
490. Stability studies in Nanocrystalline silicon layers, *Proc.*, Proc. 49th DAE Symposium, 2004, S.C. Agarwal.
491. Temperature Dependence of persistent photoconductivity in nanocrystalline silicon, *Proc. 49th DAE Symposium, 2004*, S.C. Agarwal.

492. Non-equilibrium criticality at shock formation in steady states, *J. Physics A* (2005) (IN PRESS), Sutapa Mukherjee and Somendra M. Bhattacharjee.
493. Coulomb gap in one-dimensional disordered electronic systems, *Phys. Rev. B* 69, 132416 (2004), A. Dutta, L. Fritz and D. Sen.
494. Plume dynamics of laser-produced aluminum plasma in ambient nitrogen, *Appl. Surf. Sci.* 243, 68 (2005), A.K. Sharma and R.K. Thareja.
495. Characterization of laser-produced aluminum plasma in ambient atmosphere of nitrogen using fast photography, *Appl. Phys. Lett.* 84, 4490 (2004), A.K. Sharma and R.K. Thareja.
496. Conservation Laws in Fluid Dynamics and the Self-Duality of Rankine-Hugoniot Shock Conditions, *Quantum Theory and Symmetries, Proceedings of the 3rd International, Symposium, Cincinnati, U.S.A.*, Edited by P.C. Argyres, T.J. Hodges, F. Mansouri, J.J. Scanio, P. Suranyi and L.C.R. Wijewardhana, World Scientific, 407-414, 2004, V. V. Sreedhar.
497. Structural defects formed in Al-implanted and annealed 4H-SiC *Materials Science Forum* 457- 460 (II), (2004) 889, Jones, K.A., Zheleva, T.S., Kulkarni, V.N., Ervin, M.H., Derenge, M.A., R. D. Vispute, R.D.
498. Pulsed-electron-beam deposition of transparent conducting SnO₂ films and study of their properties, *Applied Physics Letters* 84 (2004)1483 Choudhary, R.J., Ogale, S.B., Shinde, S.R., Kulkarni, V.N., Venkatesan, T., Harshvardhan, K.S., Strikovski, M., Hannover.
499. Modification of critical current density of MgB₂ films irradiated with 200 MeV Ag ions, *Applied Physics Letters* 84 (2004)2352, Shinde, S.R., Ogale, S.B., Higgins, J., Choudhary, R.J., Kulkarni, V.N., Venkatesan, T., Zheng, H., Kanjilal, D.
500. Co-occurrence of superparamagnetism and anomalous hall effect in highly reduced cobalt-doped rutile TiO₂- δ films Shinde, *Physical Review Letters* 92 (2004), 166601 1-5, S.R., Ogale, S.B., Higgins, J.S., Zheng, H., Millis, A.J., Kulkarni, V.N., Ramesh, R., Venkatesan, T.
501. Evidence for a quantum phase transition in Pr_{2-x}Ce_xCuO_{4- δ} from transport measurements Dagan, *Physical Review Letters* 92 (2004), 167001-1 3, Y., Qazilbash, M.M., Hill, C.P., Kulkarni, V.N., Greene, R.L.
502. Structural and magnetic properties of a series of low-doped Zn_{1-x}Co_xO thin films deposited from Zn and Co metal targets on (0001) Al₂O₃ substrates. *Journal of Applied Physics* 95 (2004), 7187, Fouchet, A., Prellier, W., Padhan, P., Simon, Ch., Mercey, B., Kulkarni, V.N., Venkatesan, T.

503. Channeling and resonant backscattering investigations of Co Doped diluted magnetic oxide films prepared by pulsed laser deposition Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, 219- 220(1-4), (2004) 902, Kulkarni, V.N., Shinde, S.R., Zhao, Y.G., Choudhary, R.J., Ogale, S.B., Greene, R.L., Venkatesan, T.
504. Oxygen-deficient $(\text{La}_{0.6}\text{Pr}_{0.4})_{0.7}\text{Ca}_{0.3}\text{MnO}_{3-\delta}$ thin films: Towards a first-order metal-insulator transition Ogale, Physical Review B - 69 (23), (2004) 235101-10, A.S., Shinde, S.R., Kulkarni, V.N., Higgins, J., Choudhary, R.J., Kundaliya, D.C., Polleto, T., Venkatesan, T.
505. Cathodoluminescence versus dynamical epitaxy of Ba-ion irradiated alpha;-quartz, Applied Physics Letters 85 (2004)134, Dhar, S., Gasiorek, S., Sahoo, P.K., Vetter, U., Hofsaß, H. Kulkarni, V.N., Lieb, K.P.
506. Investigation of laser-ablated ZnO thin films grown with Zn metal target: A structural study Fouchet, Journal of Applied Physics 96 (2004), 322, A., Prellier, W., Mercey, B., Méchin, L., Kulkarni, V.N., Venkatesan, T.
507. Influence of buffer layers on superconductivity in $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ epitaxial films Rakshit, Physica C: Superconductivity and its Applications 415 (1-2), (2004), 74-78, R.K., Budhani, R.C., Kulkarni, V.N., Sullivan, M.C., Greene, R.L.
508. Cathodoluminescence and solid phase epitaxy in Ba –irradiated α –quartz Journal of Applied Physics 97 (2005) 014910, Dhar, S., Sahoo, P.K., Gasiorek, S., Vetter, U., Kulkarni, V.N., Lieb, K.P.
509. Correlation of hydrogen content with the microstructure of a-C:H films Physica B: Condensed Matter 355 (2005)72, Som, T., Malhotra, M., Kulkarni, V.N., Kumar, S.
510. Cation distribution in nanosized Ni-Zn ferrites, Journal of Applied Physics, 95, 5746-5751 (2004), C. Upadhyay, H.C. Verma and S. Anand.
511. Defect studies in Fe-Cu alloys prepared by electrodeposition, Physics Letters A (2004) , M.K. Roy, V.S. Subrahmanyam and H.C. Verma.
512. Anomalous Mossbauer parameters in the second generation regolith Ghubara meteorite, Meteoritics & Planetary Science, 39, 1755-9 (2004), H.C. Verma and R.P. Tripathi.
513. Phase changes in $\text{Fe}_{72-x}\text{Al}_{28}\text{Cr}_x$ (X=0,2,4,6) alloys due to mechanical strain, Pramana 64, 281-290 (2005) , Brajesh Pandey and H.C. Verma.
514. On localized Tachyon condensation in $\text{C}^2/\text{Z}(\text{N})$ and $\text{C}^3/\text{Z}(\text{N})$, Nuclear Physics B 70: 490-520 (2004) , Tapobrata Sarkar.
515. Effect of La, B doping on the electrical resistivity and magnetic susceptibility of nanocrystalline vanadium nitride.

- Appl. Phys. 96, 688 (2004). This paper also been selected and published in the Virtual Journal of Nanoscale Science and Technology, 9 June 28 (2004), N. Sudhakar, R.S.Ningthoujam, K.P. Rajeev, A.K. Nigam, J. Weissmüller and N.S. Gajbhiye, J.
516. Photoluminescence and morphological studies of $(Y_{0.5}Gd_{0.5})BO_3$ phosphor powders prepared by urea hydrolysis route, Sandesh K. Gupta, Dinesh C.Agrawal and Yashowanta N. Mohapatra, J. Electrochem. Soc., 151(2004)H239
 517. Depolarization characteristics of sol-gel $Pb_{1.05}(Zr_{0.53}Ti_{0.47})O_3$ thin films V. Ramesh, Y. N.Mohapatra and D. C. Agrawal, Ferroelectrics 306 (2004) 71
 518. Phases and electrical conductivity of sol-gel prepared ZrO_2 and $ZrO_2-Gd_2O_3$ thin films on stainless steel, Niraj K Singh, Shiladitya Paul, P. S. Dobal, D. C. Agrawal and R. S. Katiyar, in Inorganic Materials – Recent Advances, Editors D. Bahadur, S. Vitta and Om Prakash, Narosa Publishing House, New Delhi2004, pp 165-168.
 519. Changes in the leakage currents in $Ba_{0.8}Sr_{0.2}TiO_3/ZrO_2$ multilayers due to modulations in oxygen concentration, S. K. Sahoo, D. C. Agrawal, Y. N. Mohapatra, Subhasish B. Majumder and Ram S. Katiyar, App. Phy. Let. 85 (2004) 5001.
 520. Crystallizations Studies on $AgI-Ag_2O-MoO_3$ Superionic system Synthesized by melt-quenching and Mechanical Milling, J.Phys.Chem.Solids 66 783-792, 2005, A.Dalvi, A.M.Awasthi, S.Bhardwaj & K.Shahi.
 521. Formation of Superionically conducting amorphous phase in mechanically milled $AgI-Ag_2O-V_2O_5$ system. J.Noncryst. Solids 341, 124-132, 2004, A. Dalvi & K. Shahi.
 522. White OLED based on spectral broadening in electroluminescence due to formation of interfacial exciplexes. Applied Physics Letter 86, 113505 (2005), Samarendra P Singh, Y. N. Mohapatra, and M. Qureshi, and S. Sundar Manoharan.
 523. Laser Induced degradation Studied of PP and CN-PPV Thin Films using Photoluminescence. Thin Solid Films 477 (2005) 162– 168, D. Ghosh, G.S.Samal, A.K.Biswas, Y.N.Mohapatra.
 524. Photogenerated time of flight mobility measurements in novel electron transport material: 2,5-dibenzothiazolyl thiophene Phy. Stat. sol. (a) 201, R60-R63 (2004), M. Qureshi, S. Sundar Manoharan, Samarendra P Singh, and Y. N. Mohapatra.

525. Electroluminescent properties of dimeric bis(2-(2'-hydroxyphenyl) benzthiazolate) zinc (II) complex Solid State communications 133 (2005) 305-309, M. Qureshi, S. Sundar Manoharan , Samarendra P Singh, and Y. N. Mohapatra.
526. Changes in the Leakage currents in BST/ZrO₂ multilayers due to modulations in oxygen concentration Appl. Phys. Lett., Vol ,85, No. 21 (2004), S. K. Sahoo, D. C. Agrawal, Y. N. Mohapatra, S. B. Majumder and Ram S. Katiyar.
527. Photoluminescence of phosphors prepared by low temperature hydrothermal route Journal of the Electrochemical Society, Vol. 151 (11), pp H239-H242, 2004, Sandesh Gupta, D.C.Agarwal and Y.N.Mohapatra.
528. Depolarization Characteristics of Sol-Gel Pb_{1.05}(Zr_{0.53}Ti_{0.47})O₃ Thin Film. Ferroelectrics: 306:71-77 (2004), V.Ramesh, Y.N.Mohapatra, and D.C.Agarwal.
529. Nonlinear response statistics of laminated composite plates with random material properties under random loading. Asia-Pacific conference on System Integrity and Maintenance, Dec. 6-9, 2004, Hotel Intercontinental The Grand, New Delhi, Amit Kr. Onkar, D. Yadav and C.S. Upadhyay.
530. Failure of laminated composite plates with random material properties under random loading, International Congress on Computational Mechanics and Simulation, Dec. 9-12, 2004, IIT Kanpur, Amit Kr. Onkar, D. Yadav and C.S. Upadhyay.
531. Stochastic finite element buckling analysis of Composite plates with random material properties, International Conference on Theoretical Applied, Computational and Experimental Mechanics, Dec. 28-30, 2004, IIT Kharagpur, Amit Kr. Onkar, D. Yadav and C.S. Upadhyay.
532. Auto-initiating Solid-propellant pushed plasma microthruster, AIAA-2005-0373, 43rd AIAA Aerospace Science Meeting and Exhibit, Jan. 2005, Reno, NV, USA, N.Dubey, V. Ravi and A. Kushari.
533. Re-circulating flow dynamics inside a dump combustor, Proceedings of Seventh National Conference on Air-breathing engines and Aerospace propulsion (NCABE 2004), Kanpur, November 5-7, 2004, Allied Publishers, S. Nigam, D. Ahmed, A. Kushari, D.P. Mishra.
534. Spectroscopic Analysis of a Premixed LPG-Air flame, Proceedings of Seventh National Conference on Air-breathing engines and Aerospace propulsion (NCABE 2004), Kanpur, November 5-7, 2004, Allied Publishers, Robin Gupta, Vinkish Garg, A. Kushari.

535. Twin-fluid internally mixed swirl atomizer, 19th Annual Conference of the Institute for Liquid Atomization and Spray Systems (Europe), ILASS (Europe)-2004, 6-8 September 2004, UK Nottingham, A. Kushari.
536. Study of primary atomization in a helical passage pressure-Swirl atomizer, 19th Annual Conference of the Institute for Liquid Atomization and Spray Systems (Europe), ILASS (Europe)-2004, 6-8 September 2004, Nottingham, UK, B. Mondal, P. Berman and A. Kushari.
537. Deformation Banding under Arbitrary Monotonic Loading in Cubic Metals, *Philosophical Magazine* 2004. 84:3517-3546, S. Mahesh and C.N. Tome.
538. A sub-structure based hardening model for copper under loading path changes, *Metallurgical and Materials Transactions A*, 2004. 35A:3763—3774, S. Mahesh, C. N. Tome, R.J.McCabe, G.C.Kaschner, I.J.Beyerlein, and A.Misra.
539. Lifetime Distributions for Unidirectional Fibrous Composites under Creep-Rupture Loading, *International Journal of Fracture*, 2004. 127(4):303-360, S. Mahesh and S. L.Phoenix.
540. Shear-Lag Model for a Single Fiber Metal-Matrix Composite with an Elasto-Plastic Matrix and a Slipping Interface', *International Journal of Solids Structures*, 2004. 41(15): 4197-4218, S.Mahesh, J. C. Hanan, E. Ustundag, and I. J. Beyerlein.
541. Electro-thermo-elastic formulation and layer-by-layer modeling of a smart beam with piezoelectric patches, Paper No. AIAA-2004-1649, 12th AIAA/ASME/AHS Adaptive Structures Conference, Palm Springs, California, USA, April 2004, N.A.Sheikh, C.S. Upadhyay, and C. Venkatesan.
542. Experimental Investigation of Lean Premixed Swirl Burner, *International Journal of Turbo & Jet Engines*, 21, No2, pp.103-113, 2004, D. P. Mishra and R Kannan.
543. Emission Studies of Impinging Premixed Flames, *Fuel*, 83, pp. 1743-1748, 2004, D. P. Mishra.
544. Numerical Studies of Stretched CH₄-Air Cylindrical Premixed Flames, *Fuel*, 83, pp. 2345-2350, 2004, D. P. Mishra.
545. Enhancement of Heat Transfer to an Air Jet Impinging on a Flat Plate, *Proceedings of 2004 ASME Heat Transfer/Fluids Engineering Conference*, HT-FED2004-56155, July 11-15, Charlotte, North Carolina, USA, 2004, D. P. Mishra and D. Mishra.
546. Computational Studies of Turbulent Flow in an Isothermal Suddenly Enlarged Combustion Chamber, *Proceedings of 2004 ASME Heat*

- Transfer/Fluids Engineering Conference, HT-FED2004-56156, July 11-15, Charlotte, North Carolina, USA, 2004, D. P. Mishra and T. Vishak
547. Re-circulating Flow Dynamics inside a Dump Combustor, Proceedings of 7th National Conference on Air Breathing Engines and Aerospace Propulsion, IIT, Kanpur, November 5-7, pp. 12-21, 2004, S. Nigam, D. Ahmed, A. Kushari and D. P. Mishra.
548. Control of NO_x Emissions from Gaseous Fuel Base Combustors, Proceedings of International Seminar on Gas Technology, November 19-20, 2004, D. P. Mishra and S. C. Nayak.
549. Aeroacoustics of a Vortex Ring, Invited Lecture, International Symposium on Recent Advances in Aeroacoustics and Active Flow-Combustion Control. In Honour of Professor John E. Ffowcs Williams. Jan 4-6, 2005, Goa India, By Debopam Das.
550. Study of interaction curves for composite laminate subjected to in-plane uniaxial and shear loadings, Composite Structures, Vol.64,2004,307-315.N.G.R.Iyengar and Arindam Chakraborty.
551. Polymer Nano Composites: the path to superior load bearing structural materials, Directions, IIT Kanpur, Vol.6,May 2004, 23-27, P. Venkitnarayanan and N.G.R.Iyengar
552. Optimization in structural design, Directions, IIT Kanpur, Vol. 6, 2004, 41-47, N.G.R.Iyengar
553. Response of composite laminates with random material properties, Proc. 18th National Convention of Aerospace Engineers, Khargapur, Nov. 17-19, 2004, N.G.R.Iyengar, Invited paper.
554. Stability of composite laminates using a simple higher order shear deformation theory, Proc. International conf. Theoretical, applied, computational and experimental mechanics, Dec 28-30, 2004, IIT Kharagpur, N.G.R.Iyengar, Keynote speaker.
555. Stability analysis of composite laminates with cutouts, Proc. International congress on computational mechanics and simulation, IIT Kanpur, Dec.9-12,2004, 230-237, Anil V, C.S.Upadhyay and N.G.R.Iyengar.
556. Role of Engineering Institutions and Engineering Societies in Engineering Education and Training, Prof. 19th Indian Engineering Congress, De. 17-19, 2004, Institution of Engineers (India), Mumbai. 310-313, N.G.R.Iyengar.
557. A Re Look at the Aerospace Education and Research. Int. Seminar, Aero India 2005, DRDO, Feb, 7-9, 2005. Bangalore, N.G.R.Iyengar Invited talk.

558. Optimal Nonlinear Tracking of Spacecraft Attitude Maneuvers, IEEE Transactions on Control Systems Technology, Vol.12, No.5, September 2004, Rajnish Sharma and Ashish Tewari.
559. Optimal Nonlinear Tracking of Spacecraft Attitude Dynamics, Proceedings of the AIAA /AAS Astrodynamics Specialists Conference, Providence, Rhode Island, USA, August 16-19, 2004, Rajnish Sharma and Ashish Tewari.
560. Active Vibration Suppression of Spacecraft with Rate Weighted Optimal Control and Mult-Mode Command Shaping, Proceedings of the AIAA/AAS Astrodynamics Specialists Conference, Providence, Rhode Island, USA, August 16-19, 2004, Ashish Tewari.
561. Trajectory and Attitude Simulation for Aerocapture and Aerobraking, Proceedings of the AIAA Atmospheric Flight Mechanics Conference, Providence, Rhode Island, USA, August 16-19, 2004, Mrinal Kumar and Ashish Tewari.
562. A visual study of vortex-induced instability on a flat plate laminar boundary layer. -*Experiments in Fluids*, vol. 37, pp 47-55 (2004) T.T. Lim, T.K. Sengupta and M. Chattopadhyay
563. A comparative study of time advancement methods for solving Navier-Stokes equations -*Journal of Scientific Computing Vol-21(2)*, pp 225-250. Oct. 2004, T.K. Sengupta and A. Dipankar
564. Computations of leading-edge contamination -*Computers & Fluids*, vol. 33, pp 927-951 (2004), T.K. Sengupta, V. Chaturvedi, P. Kumar and S. De
565. High accuracy compact schemes and Gibbs' phenomenon -*Jour. Scientific Computing*, vol. 21(3), pp 253-268 (2004) T.K. Sengupta, G. Ganeriwal and A. Dipankar.
566. Navier- Stokes solution by new compact scheme for incompressible flows -*Jour. Scientific Computing*, vol. 21(3), pp 269-282 (2004) By T.K. Sengupta, A. Guntaka and S. Dey
567. Proper orthogonal decomposition of direct numerical simulation data of by-pass transition - *Computers & Structures*, vol. 82, issues 31-32, pp 2693-2703 (2004), T.K. Sengupta and S. Dey.
568. Secondary Flow Control using Vortex Generator Jets; Physical Mechanism, Proceedings of National Conf. On Air breathing Engines and Aerospace Propulsion, NCABE-2004, IIT Kanpur Nov. 05-07, 2004, A.M. Pradeep and R.K. Sullerey.
569. Application of a Mesh Moving Scheme to Ram-Air Parachute, Proceedings of the International Seminar on Technologies & Trends in

- Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, Prashant S. Hadagali and S.Mittal.
570. Effect of blockage on vortex induced vibrations, Proceedings of the International Seminar on Technologies & Trends in Development of Para Recovery Systems (Para International 05), Agra, India, March 15-17, 2005, Suresh Behara, T.K. Prasanth and S. Mittal.
571. Vortex Induced Vibrations of a Spinning and Translating Cylinder, Proceedings of the International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, T.K. Prasanth and S.Mittal.
572. An Efficient Airfoil Configuration for Ram-Air Parachute Applications, Proceedings of the International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, S.Mittal, R. Balaji and A.K. Rai.
573. Instabilities in Bluff Body Flows in Abstracts of the Tenth Asian Congress on Fluid Mechanics, University of Peradeniya, Srilanka, 2004, S.Mittal.
574. Instabilities in Bluff Body Flows in Abstracts of the International Workshops on Advances in Computational Mechanics, Tama Campus, Hosei University, Tokyo, Japan 2004, S.Mittal.
575. Effect of elastic supports on the critical value of Reynolds Numbers past a cylinder, in Abstracts of the National Conference on Recent Advances in Mechanical Engineering-NCRAE-2004, Jabalpur Engineering College, 2004, S.Mittal.
576. Instabilities in Bluff Body Flows in IUTAM Symposium for Laminar-Turbulent Transition, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, India, 2004, S.Mittal.
577. On Application of Parameter Estimation Methods To Flight Data of A Typical Parafoil, Technologies and Trends in Development of Para Recovery Systems, ADRDE Agra, 15-17 March, 2005, A.Singhal, Ujjwala D, A.K. Ghosh.
578. Flight Path Prediction of an Artillery Shell Using Feed Forward Neural Networks, AIAA Atmospheric Flight Mechanics Conference and Exhibit-Submitted, A.K. Ghosh, Ankur Singhal, Ayush Jha.
579. Transition Metals Based Nanomaterials for Signal Transduction, B. P. Bag, P. K. Bharadwaj, Encyclopaedia of Nanoscience and Nanotechnology 10 (2004) 517.
580. Puckered Boat Conformation Hexameric Water Clusters Framework Structure stabilized in a 2D Metal-Organic Framework structure Built

- from Cu(II) and Benzene-1,2,4,5-tetracarboxylic Acid, S. K. Ghosh and P. K. Bharadwaj, *Inorg. Chem.* 43 (2004), 5180.
581. Structure of a Discrete Hexadecameric Water Cluster in a Metal-Organic Framework Structure. S. K. Ghosh and P. K. Bharadwaj, *Inorg. Chem.* 43 (2004), 6887.
582. Binding and extraction of pertechnetate and perrhenate by azacages. Fundamentals and Applications of Anion Separations, [Proceedings of the Symposium Fundamentals and Applications of Anion Separations held during the American Chemical Society National Meeting, Chicago, IL, United States, Aug. 26-31, 2001], Holger Stephan, Karsten Gloe, Werner Kraus, Hartmut Spies, Bernd Johannsen, Kathrin Wichmann, Guenter Reck, Dillip K. Chand, Parimal K. Bharadwaj, Mueller Ute, M. Walter, Fritz Voegtle (2004) 151-168.
583. Fluorescence enhancement of a signaling system in the simultaneous presence of a transition and an alkali metal ions: a potential AND logic gate. B. P. Bag, P. K. Bharadwaj, *Chem. Commun.* (2005) 513.
584. An Infinite Water Chain Passes Through an Array of Zn(II)-Metalloclusters Built with a Podand Bearing Terminal Carboxylates S. Neogi, P. K. Bharadwaj, *Inorg. Chem.* 44 (2005) 816.
585. Perturbation of the PET Process in Fluorophore-Spacer-Receptor Systems Through Structural Modification: Transition metal Induced Fluorescence Enhancement and Selectivity. B. P. Bag, P. K. Bharadwaj, *J. Phys. Chem. B* 109 (2005) 4377.
586. Characterization of 3D Metal-Organic Frameworks Formed Through Hydrogen Bonding Interactions of 2D Networks with Rectangular Voids by Co^{II} and Ni^{II} (pdc) [pdc= Pyridine-2,6-dicarboxylate] and 4,4'-Bipyridine or 1,2-Di(pyridyl)ethylene, S. K. Ghosh, J. Ribas, P. K. Bharadwaj, *Crystal Growth and Design.* 5 (2005) 623.
587. Self-Assembly of a Co(II) Dimer through H-bonding of Water Molecules to a 3D Open-Framework Structure, S. K. Ghosh, P. K. Bharadwaj, *J. Chem Sci.* 117 (2005) 23.
588. Cyclophosphazene hydrazides as efficient multisite coordination ligands. \square^3 -fac-non-geminal-N₃ coordination of spiro-N₃P₃[O₂C₁₂H₈][N(Me)NH₂]₄ (L) in L₂CoCl₃ and L₂M(NO₃)₂ (M = Ni, Zn, Cd) Vadapalli Chandrasekhar, Venkatasubbaiah. Krishnan, Alexander. Steiner, Jamie. F. Bickley, *Inorg. Chem.* 2004, 43, 166-172
589. Metalated hybrid polymers as catalytic reagents for phosphate ester hydrolysis and plasmid modification Vadapalli Chandrasekhar, Pravas Deria, *Bioorg. Med. Chem. Lett.* 2004, 14, 1559-1562, Venkatasubbaiah

- Krishnan, Arunachalampillai Athimoolam, Sanjay Singh, C. Madhavaiah, S.G. Srivatsan, Sandeep Verma.
590. Reactions of $n\text{-Bu}_2\text{SnO}$ and $(n\text{-Bu}_3\text{Sn})_2\text{O}$ with 1,1,2,3,3-pentamethyltrimethylene phosphinic acid: Synthesis and X-ray crystal structures of a novel spirocyclic coordination polymer and a 16-membered inorganic macrocycle, *Organometallics* 2004, 23, 1390-1395, Vadapalli Chandrasekhar, Viswanathan Basker, Alexander Steiner, Stefano Zacchini.
591. Molecular zinc phosphonates: synthesis and X-ray crystal structures of $[\{(ZnMe)_4(THF)_2\}\{tBuPO_3\}_2]$ and $[\{(ZnEt)_3(Zn(THF))_3\}\{tBuPO_3\}_4\{\mu_3\text{-OEt}\}]$ *Dalton Transactions* 2004, 1271-1275, G. Anantharaman, Vadapalli Chandrasekhar, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull M. Noltemeyer.
592. New Polyhedral Zinc Siloxanes: Synthesis and X-ray Crystal Structures of $Zn_8Me_7(\text{dioxane})_2(\text{O}_3\text{SiR})_3$ and $[Zn_7Me_2(THF)_5(\text{O}_3\text{SiR})_4]$ [$R = (2,6\text{-iPr}_2\text{C}_6\text{H}_3)\text{N}(\text{SiMe}_3)$], *Organometallics*, 2004, 23, 2251-2256, G. Anantharaman, Vadapalli Chandrasekhar, U. N. Nehete, H. W. Roesky, D. Vidovic, and J. Magull.
593. Organostannoxane Motifs in Cages and Supramolecular Architectures, Phosphorus, Sulfur, Silicon and the Related Elements, 2004, 179, 699-701, V. Chandrasekhar, V. Baskar, R. Boomishankar, S. Nagendran.
594. Synthesis and Reactivity of the Carbaalanes $(AlH)_6(AlNMe_3)_2(CCH_2C_5H_4FeC_5H_5)_6$ and $(AlH)_6(AlNMe_3)_2(CCH_2Ph)_6$: X-ray Crystal Structure of $(AlH)_6(AlNMe_3)_2-(CCH_2C_5H_4FeC_5H_5)_6$, *Organometallics*, 2004, 23, 3496-3500, S. Shravan Kumar, J. Rong, ; S. Singh, ; H. W. Roesky, D. Vidovic, J. Magull, D. Neculai, V. Chandrasekhar, M. Baldus.
595. Polyhedral Ferrous and Ferric Siloxanes, *Angew. Chem. Int. Ed.*, 2004, 43, 3832 – 3835, U. N. Nehete, G. Anantharaman, V. Chandrasekhar, R. Murugavel, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull, K. Samwer, B. Sass.
596. Molecular $\{(SnO)_6\}$ Trapped by Two $\{R_2Si_2O_3\}$ Fragments: X-Ray Single-Crystal Structure of $[(SnO)_6(R_2Si_2O_3)_2]$ *Angew. Chem. Int. Ed.*, 2004, 43, 3842 – 3844, U. N. Nehete, V. Chandrasekhar, G. Anantharaman, H. W. Roesky, D. Vidovic, J. Magull.
597. Two Types of Intramolecular Addition of an Al-N Multiple-Bonded Monomer $LAlNAr'$ Arising from the Reaction of LAl with N_3Ar' ($L = HC[(CMe)(NAr)]_2$, $Ar' = 2,6\text{-Ar}_2\text{C}_6\text{H}_3$, $Ar = 2,6\text{-iPr}_2\text{C}_6\text{H}_3$), *J. Am. Chem. Soc.*, 2004, 126, 9472-9473, H. Zhu, J. Chai, V. Chandrasekhar, H. W.

- Roesky, J. Magull, D. Vidovic, H-G. Schmidt, M. Noltemeyer, P. P. Power, and W. A. Merrill.
598. Control of Molecular Topology and Metal Nuclearity in Multimetallic Assemblies: Designer Metallosiloxanes Derived from Silanetriols, *Chem. Eur. J.*, 2004, 10, 4106-4114, H. W. Roesky, G. Anantharaman, V. Chandrasekhar, V. Jancik, S. Singh.
599. Tetranuclear Homo- and Heteroalumoxanes Containing Reactive Functional Groups: Syntheses and X-ray Crystal Structures of $[\{[LAl(Me)](\mu-O)(MH_2)\}_2]$, *Angew. Chem. Int. Ed.*, 2004, 43, 4940-4943, S. Singh, S. S. Kumar, V. Chandrasekhar, Hans-Jürgen Ahn, M. Biadene, H. W. Roesky, N. S. Hosmane, M. Noltemeyer, Hans-Georg Schmidt Hybrid polymeric ligands and polymer supported catalysts containing cyclophosphazenes, *Competes Rendus Chimie*, 2004, 7, 915-925, Vadapalli Chandrasekhar, Venkatasubbaiah Krishnan, Pakkirisamy Thilagar.
600. Heavy-Metal-Containing Polyhedral Metallasiloxane Derived from an Aminosilanetriol: Synthesis and Structural Characterization of $[(PbO)_6(R_2Si_2O_3)_2]$ ($R = (2,6-iPr_2C_6H_3)N(SiMe_3)$), *Organometallics* 2004, 23, 5372-5374, U. N. Nehete, V. Chandrasekhar, V. Jancik, H. W. Roesky, R. Herbst-Irmer.
601. Recent developments in the synthesis and structure of organosilanols, *Chem. Rev.*, 2004, 104, 5847-5910, V. Chandrasekhar, R. Boomishankar, S. Nagendran.
602. A Paradigm Change in Assembling OH Functionalities on Metal Centers, *Acc. Chem. Res.*, 2004, 37, 969-981, H. W. Roesky, S. Singh, V. Jancik, V. Chandrasekhar.
603. The Formal Conversion of SiOH Protons into Hydrides by Germanium(II) Species Leads to the Formation of the Germanium(IV) Hydride Cluster $[(RSiO_3GeH)_4]$, *Angew. Chem. Int. Ed.* 2005, 44, 281 – 284, U. N. Nehete, V. Chandrasekhar, H. W. Roesky, J. Magull.
604. A luminescent linear trinuclear magnesium complex assembled from a phosphorus-based tris-hydrazone ligand, *Chem. Commun.*, 2005, 459-461, V. Chandrasekhar, R. Azhakar, J. F. Bickley, A. Steiner.
605. Conformational effects on vibronic spectra and excited state dynamics of 3-fluorobenzoic acid dimer, *J. Chem. Phys.* 121 (2004) 5261, C. K. Nandi, M. K. Hazra and T. Chakraborty.
606. Photophysics of 2-(6'-hydroxy-3-pyridyl) enzimidazole: Effects of solvents and acid-base concentrations, *J. Mol. Struct.*, 703 (2004) 1, M. M. Balamurali and S. K. Dogra.

607. Inter- and Intramolecular proton transfer in methyl 2-hydroxynicotinate, *J. Lumin.*, 110 (2004) 147, M. M. Balamurali and S. K. Dogra.
608. Excited state intramolecular proton transfer in 2-(2'-amino-3'-pyridyl) enzimidazole: Effects of solvents, *Chem. Phys.*, 305 (2004) 95, M. M. Balamurali and S. K. Dogra.
609. Hydrogen bond dynamics at air-water and metal-water interfaces, *Chem. Phys. Lett.* 386, 2004, 218-224, Sandip Paul and Amalendu Chandra.
610. Binding of hydrogen binding solutes at liquid-vapour interfaces of molecular fluids, *Chem. Phys. Lett.* 400, 2004, 515-519, Sandip Paul and Amalendu Chandra.
611. Magnetic Properties of ϵ -Fe_{3-x}Ni_xN nanoparticles, *Phys. Stat. Sol. (c)*, 1, 2004, 3764, N. S. Gajbhiye and Sayan Bhattacharyya.
612. Mössbauer Studies of Nanosize CuFe₂O₄ Particles, *Hyper. Interact*, 156/157, 2004, 57, N. S. Gajbhiye, G. Balaji, Sayan Bhattacharyya, M. Ghafari.
613. Magnetism of Nanostructured Iron Nitride (Fe-N) Systems, *Phys. Stat. Sol. (c)*, 1, 2004, 3252, N. S. Gajbhiye, R. N. Panda, R. S. Ningthoujam and Sayan Bhattacharyya.
614. Structural, Electrical and Magnetic Studies of Nanocrystalline δ -MoN and γ -Mo₂N, *Phys. Stat. Sol. (c)*, 1, 2004, 3449, N. S. Gajbhiye and R. S. Ningthoujam.
615. Magnetic and Current Density Studies on Nanostructured Vanadium Nitride Material, *Ind. J. Phys.*, 78A, 2004, 89, Raghumani Singh Ningthoujam and N. S. Gajbhiye.
616. Thermal Decomposition Study of Nanocrystalline Ni₃N, *Ind. J. Phys.*, 78A, 2004, 265, R. S. Ningthoujam and N. S. Gajbhiye.
617. Mössbauer Study of Nanocrystalline ϵ -Fe_{3-x}Co_xN, *Hyper. Interact*, 156/157, 2004, 51, N. S. Gajbhiye, R. S. Ningthoujam and J. Weissmüller.
618. Effect of La, B Doping on the Electrical Transport and Magnetic Properties of Nanocrystalline Vanadium Nitride, *J. Appl. Phys.*, 96, 2004, 688, N. Sudhakar, R. S. Ningthoujam, K. P. Rajeev, A. K. Nigam, J. Weissmueller and N. S. Gajbhiye.
619. Spin- Glass Like Transition in Interacting MnFe₂O₄ Nanoparticles, *Phys. Stat. Sol.(B)*, 241, 2004, 1589, G. Balaji, G. Wilde, J. Weissmüller, N. S. Gajbhiye, and V.K.Sankarnarayanan.
620. Proceedings of NANO-2004: 7th International Conference on Nanostructured Materials, Wiessbaden, Germany, June 21-24 2004, Molecular (SnO)₆ trapped by two {R₂Si₂O₃} fragments: X-ray single-

- crystal structure of $[(\text{SnO})_6(\text{R}_2\text{Si}_2\text{O}_3)_2]$. U. N. Nehete, V. Chandrasekhar, G. Anantharaman, H. W. Roesky, D. Vidovic, J. Magull, *Angew. Chem. Int. Ed.* 2004, 43, 3842-3844.
621. Polyhedral ferrous and ferric siloxanes. *Angew. Chem. Int. Ed.* 2004, 43, 3832-3835, U. N. Nehete, G. Anantharaman, V. Chandrasekhar, R. Murugavel, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull, K. Samwer, B. Sass.
622. New Polyhedral Zinc Siloxanes: Synthesis and x-ray Crystal Structures of $\text{Zn}_8\text{Me}_7(\text{dioxane})_2(\text{O}_3\text{SiR})_3$ and $[\text{Zn}_7\text{Me}_2(\text{THF})_5(\text{O}_3\text{SiR})_4]$ [R = (2,6-i-Pr₂C₆H₃)N(SiMe₃)], *Organometallics* 2004, 23, 2251-2256, G. Anantharaman, V. Chandrasekhar, U. N. Nehete, H. W. Roesky, D. Vidovic, J. Magull.
623. Molecular zinc phosphonates: synthesis and X-ray crystal structures of $[\{(\text{ZnMe})_4(\text{THF})_2\}\{\text{tBuPO}_3\}_2]$ and $[\{(\text{ZnEt})_3(\text{Zn}(\text{THF}))_3\}\{\text{tBuPO}_3\}_4\{\mu_3\text{-OEt}\}]$, *Dalton Trans.* 2004, 1271-1275, G. Anantharaman, V. Chandrasekhar, M. G. Walawalkar, H. W. Roesky, D. Vidovic, J. Magull, M. Noltemeyer.
624. Optical Pulse Shaping Approaches to Coherent Control, *Physics Reports* 374(6), 385-483 (2003), Debabrata Goswami.
625. Ultrafast Pulse Shaping and its Applications, *Frontiers in Atomic, Molecular & Optical Physics*, 3, 389 (2003), Debabrata Goswami.
626. Optical Computing: Optical Components and Storage Systems, *Resonance* 8(6), 56-71 (2003), Debabrata Goswami.
627. Optical Computing: Research Trends, *Resonance* 8(7), 8-21 (2003), Debabrata Goswami.
628. Control of Supercontinuum Generation with Polarization of Incident Laser Pulses, *Appl. Phys. B* 77(2-3) 325-328 (2003), Alok Srivastava and Debabrata Goswami.
629. Synthesis, characterization and variable temperature ¹H NMR behavior of organobridged dicobaloximes, *Organometallics* 23 (2004) 2069-2079, B. D. Gupta, V. Vijaikanth, Veena Singh.
630. Reactions of organocobaloximes with arylsulfonyl chlorides, *J. Organometal. Chem.*, 689 (2004) 1102-1109, B. D. Gupta, V. Vijaikanth.
631. Short C=O \cdots C intermolecular contacts for molecular assembly Gitalee, Bhattacharjya, G. Savitha and Gurnath Ramanathan, *CrystEngComm*, 2004, 6(40), 233-235.
632. Heteroannulation of 3-Bis(methylthio)acrolein with Aromatic Amines: A Convenient Highly Regioselective Synthesis of 2-(Methylthio)quinolines and their Benzo/Hetero Fused Analogs: A Modified Skraup Quinoline

- Synthesis. Kausik Panda, Iffat Siddiqui, H. Ila, H. Junjappa *Synlett* 449-452 (2004).
633. α -Oxoketene Dithioacetal Mediated Heteroaromatic Annulation Protocol for Benzoheterocycles. An Efficient Regiocontrolled Synthesis of Highly Substituted and annulated Indazoles S. Peruncheralathan, T. A. Khan, H. Ila, H. Junjappa *Tetrahedron* 60, 3457-3464 (2004).
634. α -Oxoketene Dithioacetal Mediated Aromatic Annulation: Highly Efficient and Concise Synthetic Routes to Potentially Carcinogenic Polycyclic Aromatic Hydrocarbons S. Nandi, Kausik Panda, J. R. Suresh, H. Ila, H. Junjappa *Tetrahedron* 60, 3663-3673 (2004).
635. Domino Carbocationic Rearrangement of α -[Bis(methylthio)methylene]alkyl-2 (heteroaryl)cyclopropyl Ketones. S. Peruncheralathan, V. Sriram, H. Ila, H. Junjappa *Tetrahedron* 60, 5603-5612 (2004).
636. Review: Enantioselective Palladium Catalyzed Transformations L. F. Tietze, H. Ila, H. *Bell Chemical Review* 104, 3453-3516 (2004).
637. Heteroaromatic Annulation Studies on 2-[Bis(methylthio)methylene]-1-methyl-3-oxindole: Synthesis of Novel Heterocyclo[b]fused Indoles. U. K. Syam Kumar, A. K. Yadav, C. Venkatesh, H. Ila and H. Junjappa *Arkivoc*, (viii), 20-27, 2004 (dedicated to Prof. P. T. Narasimhan on his 75th Birthday).
638. A Concise Formal Synthesis of Alkaloid Cryptotackiene and Substituted 6H-Indolo[2,3-b]quinolines. G. S. M. Sundaram, C. Venkatesh, U. K. Syam Kumar, H. Ila, H. Junjappa *J. Org. Chem.* 69, 5760 (2004).
639. S,S-Dimethyl Dithiocarbonate: A Useful Reagent for Efficient Conversion of Aldoximes to Nitriles. Taukeer Ahamed Khan, Saravanan Peruncheralathan, Hiriyakkanavar Ila and Hiriyakkanavar Junjappa *Synlett* 2019, (2004).
640. Synthesis of Functionalized 1,2,3,4-Tetrahydro- β -carboline Derived Enamines through Bischler-Napieralski Type Cyclization of Polarized Ketene N, S-acetals Sriparna Chakrabarti, Kausik Panda, H. Ila, H. Junjappa *Synlett*, 309, (2005).
641. Hydrocalcite Catalysis in Ionic Liquid Medium: A Recyclable Reaction System for Heterogeneous Knoevenagel and Nitroaldol Condensation, *Tetrahedron Lett.* 2004, 45, 3055-3058, F. A. Khan, J. Dash, R. Satapathy and S. K. Upadhyay.
642. Diastereoselection During Allylindium Addition to Norbornyl α -diketones, *Eur. J. Org. Chem.*, 2004, 2692-2700, F. A. Khan, J. Dash.

643. A short and stereoselective synthesis of functionalized pentenomycin derivatives, *Tetrahedron Lett.* 2004, 45, 9285-9288, F. A. Khan, J. Dash and Bhimsen Rout.
644. 1-Butyl-3-methyl-imidazolium tetrafluoroborate as a recyclable reaction medium for Henry Reaction, *Sahu Synthetic Communications* 2005, 35, 207-213, F. A. Khan, Ch. Sudheer and N.
645. Vibrational spectra of cubane and azacubane: a theoretical study, G.Ramachandran and S.Manogaran, *J.Mole.Struct.(THEOCHEM)*,719,7-16(2005), S.Manogaran
646. Qureshi Mohammad, S. Sundar Manoharan, Samarender P. Singh and Y.N. Mahapatra, photogenerated time – of – flight mobility measurements in novel electron transport material, 2, 5 dibenzthiazolyl thiophene, *Physica Status Solidi (a) Rapid Commun.*, 201(9), R60 (2004)
647. White light electroluminescence based on ZnS –PFO blends, *Physica Status Solidi (a)*, 1-5, 2005, S. Sundar Manoharan, Qureshi Mohammad.
648. Long range ferromagnetic ordering in Pulsed Laser Deposited $\text{La}_{0.7}\text{Ca}_{0.3}\text{Mn}_{1-x}\text{Ru}_x\text{O}_3$ thin films. *Phys. Chem. Chem. Phys.* 6, 4199, (2004), Brajendra Singh, S. Sundar Manoharan, Manju Lata Rao and S. P. Pai.
649. Qureshi Mohammad, S. Sundar Manoharan, Samarender P. Singha and Y.N. Mahapatra, Luminescence properties of dimeric bis (2, 2'-hydroxyphenyl) benzthiazolato Zinc(II) complex; *Solid State Commun.* 133, 305, 2005
650. Luminescence properties of dimeric bis (2, 2'- hydroxyphenyl) benzthiazolato Zinc(II) complex; *Appl. Phys. Lett.*, 86(11), 1-4, 2005, Samarender P. Singha and Y.N. Mahapatra Qureshi Mohammad, S. Sundar Manoharan.
651. Identification of New Supramolecular Synthons in o- Anisaldehydes: Molecular Self-Assembly into Tapes and Staircases, *Journal of Molecular Structure* 2005, In Press, Moorthy, J. N.; Natarajan, R.; Venugopalan, P.
652. Corundum, Diamond and PtS Metal-Organic Frameworks (MOFs) with a Difference: Self- Assembly with a Unique Pair of 3-Connecting D_{2d} -Symmetric 3,3',5,5'-Tetrakis(4- pyridyl)bimesityl, *Angewandte Chemie.*, International Edition 44, 2005, Early View, Natarajan, R.; Savitha, G.; Dominiak, P.; Wozniak, K.; Moorthy, J. N.
653. Self-Assembly of a Unique Extended-Tetrahedral 3,3',5,5'- Tetrakis(4-Pyridyl) Ligand into Discrete Supramolecular Cubes by Face Directed Metal Coordination, *Crystal Growth & Design* 5, 2005, 69-72.

654. Facile and Highly Selective Conversion of Nitriles to Amides via Indirect Acid-Catalyzed Hydration Using TFA or AcOH-H₂SO₄. *Journal of Organic Chemistry* 70, 2005, 1926- 1929, Natarajan, R.; Savitha, G.; Moorthy, J. N.
655. Polymorphism of an o-Anisaldehyde: A Novel Example of Channel-Type Organization Sustained by Weak C-H...O and C-H...N Hydrogen Bonds. *New Journal of Chemistry* 28, 2004, 1416-1419, Moorthy, J. N.; Singhal, N.
656. Highly Diastereoselective Tandem Photoenolization-Hetero-Diels-Alder Cycloaddition Reactions of o-Tolualdehydes in the Solid State. *Journal of Organic Chemistry*. 69, 2004, 8459-8466, Moorthy, J. N.; Natarajan, R.; Mal, P.; Venugopalan, P.
657. Studies on Oxidations with IBX: Oxidation of Alcohols and Aldehydes under Solvent-Free Conditions, *Tetrahedron Letters*. 45, 2004, 5419-5424, Moorthy, J. N.; Mal, P.; Singhal, N.; Venkatakrishnan, P.; Malik, R.; Venugopalan, P.
658. Reaction Behaviour of Copper(I) Complexes with m-Xylyl-based Ligands Towards Dioxygen, *Dalton Trans.* 2004, 2321-2328, S. P. Foxon, D. Utz, J. Astner, S. Schindler, F. Thaler, F. W. Heinemann, G. Liehr, J. Mukherjee, V. Balamurugan, D. Ghosh and R. N. Mukherjee.
659. Nonexponential Relaxation of the Metastable State of the Spin-Crossover System [Fe(L)₂](ClO₄)₂·H₂O [L = 2,6-bis(pyrazol-1'-ylmethyl)pyridine], *Inorg. Chem.* 2004, 43, 4880-4888, C. Enachescu, J. Linares, F. Varret, K. E. Codjovi, S. G. Salunke and R. N. Mukherjee.
660. Designing Neutral Coordination Networks Using Inorganic Supramolecular Synthons: Combination of Coordination Chemistry and C-H ... Cl Hydrogen Bonding, *CrystEngComm* 2004, 6, 396-400, V. Balamurugan, W. Jacob, J. Mukherjee and R. N. Mukherjee.
661. B. C. Karthik and R. N. Mukherjee, Hydrolysis of phosphodiester by Non-heme Bimetallic Complexes: Relevance to the Purple Acid Phosphatases, 227th American Chemical Society National Meeting, Non-heme Iron Chemistry in Biology, Anaheim, California, USA (March 28 – April 1, 2004)
662. H. Mishra, A. K. Patra, and R. N. Mukherjee, Half-Sandwich (η^6 -C₆H₆)Ru^{II} Complexes with Evidence for C-H ... Cl Interaction and Structure of a Cyclohexadienyl Derivative, 7th National Symposium in Chemistry (NSC-7), Indian Association for the Cultivation of Science, Kolkata, Book of Abstracts (p-367), (February 4-6, 2005)

663. K. Singh and R. N. Mukherjee, Transition Metal Complexes of Pyridine/Pyrazine-2-carboxamide-based Hexadentate Ligands with Amido-Pyridyl/Pyrazine-Thioether Coordination, 7th National Symposium in Chemistry (NSC-7), Indian Association for the Cultivation of Science, Kolkata, Book of Abstracts (p-366), (February 4-6, 2005) .
664. Natasza Sprutta, Sankar Prasad Rath, Marilyn M. Olmstead, and Alan L. Balch Metal Complexes of meso-Amino-octaethylporphyrin and the Oxidation of Ni^{II}(meso-amino-octaethylporphyrin) *Inorg. Chem.* 2005, 44, 1452.
665. Steve Stevenson, J. Paige Stevenson, Jon E. Reid, Marilyn M. Olmstead, Sankar Prasad Rath, and Alan L. Balch Pyramidalization of Gd₃N inside a C₈₀ Cage. The Synthesis and Structure of Gd₃N@C₈₀ *Chemical Communications* 2004, 2814.
666. A Synthetic Model of MixedMetal Sulfide, Cluster of Molybdenum and Copper Present in the Orange Protein of *Desulfovibrio gigas* , 2004, *Inorg. Chem.Commun.* 7, 1027-1029, Maiti Biplab, Paul Kuntal; Sarkar, Sabyasachi.
667. A Structural and Functional Analogue of the Active Site of Polysulfide Reductase from *Wolinella succinogenes*, 2004 *Inorg. Chem* 43, 4532-4533, Kowliki Nagarajan, Hemant K. Joshi, Pradeep K. Chaudhury, John H. Enemark and Sabyasachi Sarkar.
668. Ab initio potential energy surface for HeF₂ in its ground electronic state, *Chem. Phys.* 308(2005)277-284, U. Lourderaj and N. Sathyamurthy.
669. Synthesis of substituted imidazolines via [3+2]-cycloaddition of aziridines with nitriles, B.A.B. Prasad, G. Pandey, and Vinod K. Singh *Tetrahedron Lett.* 2004, 45, 1137.
670. A Facile One Step Synthesis of α -Alkoxy Lactone via Sequential Lactonization and 1,4-Addition of Alkoxide Group: Total Synthesis of All the Stereoisomers of Dihydrokawain-5-ol, R. P. Singh and Vinod K. Singh *J. Org. Chem.* 2004, 69, 3425.
671. Trimethylsilyl cyanide addition to aldimines and its application in the synthesis of (S)-phenylglycine methyl ester, B. A. B. Prasad, A. Bisai, and Vinod K. Singh *Tetrahedron Lett.* 2004, 46, 9565.
672. Regioselective ring opening of aziridines with activated DMF Complex: A facile synthesis of α -halo amines, M. K. Pandey, A. Bisai, and Vinod K. Singh *Tetrahedron Lett.* 2004, 46, 9661.
673. 2-Aryl-N-tosylazetidines as formal 1,4 dipoles for [4+2] cycloaddition reactions with nitriles: An easy access to the tetrahydropyrimidine

- derivatives, B.A.B. Prasad, A. Bisai, and Vinod K. Singh *Org. Lett.* 2004, 6, 4829.
674. Parametric perspective on highly excited states: case study of CHBrClF and C₂H₂, *Chem. Phys. Lett.*, Vol 395, page 327 (2004), A. Semparithi and S. Keshavamurthy.
675. C. Copper containing nuclease mimics: Synthetic models and biochemical applications, in *Artificial Nucleases (Series: Nucleic Acids and Molecular Biology)* Ed. Zenkova, M., Springer Verlag, Heidelberg, 2004, 13, 129-150, Verma, S. *, Srivatsan, S. G., and Madhavaiah.
676. Bioinspired modification of polystyryl matrix: Single-step chemical evolution to a moderately conducting polymer. *Chem. Lett.* 2004, 33, 740-741, Saxena, A., Srivatsan, S. G., Saxena, V., and Verma, S.
677. Catalytic transformations with copper-metalated diglycine conjugates. *Bioorg. Med. Chem.* 2004, 12, 5973-5982, Madhavaiah, C., Parvez, M. and Verma, S.
678. ATCUN-like metal binding motifs in proteins: Identification and characterization by crystal structure and sequence analysis. *Prot. Struct. Funct. Bioinf.* 2005, 58, 211-221, Sankararamkrishnan, R., Verma, S., and Kumar, S.
679. Copper-metalated peptide palindrome derived from prion octarepeat: Synthesis, aggregation and oxidative transformations. *Bioorg. Med. Chem.* 2005, in press, Madhavaiah, C. and Verma, S. *
680. Formal [3 + 2] Addition of Acceptor-Substituted Cyclopropylmethylsilanes with Arylacetylenes, *Angew. Chem. Int. Edn* 2004, 43, 2669-2671, Veejendra K. Yadav, Vardhineedi Sriramurthy.
681. Formal [3 + 2] and [3 + 3] Additions of Acceptor-Substituted Cyclopropylmethylsilanes to Allenylsilanes, *Org. Letts.* 2004, 6, 4495-4498, Veejendra K. Yadav, Vardhineedi Sriramurthy.
682. Selective deprotection of terminal isopropylidene acetals and trityl ethers using HClO₄ supported on silica gel, *Carbohydrate Research* 2005, 340, 1661, Aditi Agarwal and Yashwant D. Vankar.
683. Synthesis of novel hybrids of D-galactose with 1-deoxynojirimycin analogues as glycosidase inhibitors, *Angewandte Chemie Int. Ed.* 2005, 44, 2001, B. Gopal Reddy and Yashwant D. Vankar.
684. Trimethylsilylnitrate: A useful reagent for direct synthesis of 2-deoxy-O-glycosides from glycols, *ARKIVOC* 2004, Part (viii), 12-19, B. Gopal Reddy and Yashwant D. Vankar.
685. NaNO₂-Ceric Ammonium Nitrate Mediated Conversion of Acrylic Esters and Baylis-Hillman derived Acrylic Esters into corresponding □-Nitro

- Acrylic Esters, Tetrahedron 2004, 60, 397-403, K. Jayakanthan, K.P. Madhusudanan and Yashwant D. Vankar.
686. Estimation of Hydraulic Conductivity of Clay Liners: A Neural network Approach, International Symposium on Lowland Technology-ISLT 2004, Bangkok, Das S.K. & Basudhar P.K.
687. Artificial neural networks for predictions of soil permeability, IGC2004, Warangal, India, S.K. & Basudhar P.K.
688. Characterization of an Alluvial Soil Site Using Artificial Neural Network, International Workshop on Risk assessment in site characterization and geotechnical design, November, Bangalore, India, 2004, S.K. and Basudhar, P.K.
689. Effect of Depth of Placement of Reinforcement on Settlement Response of Reinforced Beds, Proceedings of National Symposium on Advances in Geotechnical Engineering – NSAGE 2004, Indian Institute of Science, Bangalore, 351-354, Maheshwari, P. Basudhar, P.K & Chandra, S.
690. National Conference on Materials and their Application in Civil Engineering, NIT Hamirpur, 26-27th August, 2004, gave an expert lecture, Das, A.
691. Optimal real-time operation of reservoir system for downstream water quality control using linked simulation optimization, International Conference on Hydraulic Engineering: Research and Practice (ICON-HERP-2004), I.I.T. Roorkee, 571-579, 2004, Dhar, A., and Datta, B.
692. Design Spectrum-Based Scaling of Strength Reduction Factors, Proc. 13th World Conference on Earthquake Engineering, Vancouver, Canada, Paper 539, 1-9, 2004, Chakraborti, A. and Gupta, V.K.
693. Evaluation of ANN Technique for Rainfall-Runoff Modeling in a Large Watershed, Proc. Intl. Conf. on Hydrological Perspectives for Sustainable Development (HYPESD2005), February 23-25, 2005, IIT Roorkee, Roorkee, India, 2005, Jha, S.K. and Jain, A.
694. National Conference on Resources Conserving Technologies for Social Upliftment (RCTSU2004), December 07-09, 2004, New Delhi, India, presented contributed paper, Jain, A.
695. Adverse Impacts of Large-Scale Rainwater Harvesting, Proc. of the National Conference on Resources Conserving Technologies for Social Upliftment (RCTSU2004), December 07-09, 2004, New Delhi, India, 2004, Jain, A
696. LiDAR mapping of tidal marshes for ecogeomorphological modelling in the TIDE project, 8th International Conference on Remote Sensing for Marine and Coastal Environments, 17-19 May 2005 in Halifax, Nova

- Scotia, Canada, 2004, D. C. Mason, M. Marani, E. Belluco, A. Feola, R. Katzenbeisser, B. Lohani, M. Menenti, D. Paterson, T. Scott, S. Silvestri, C. Wang and H-J. Wang.
697. Laser altimetry for safer urban environment, Poster presentation, Third International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 18-19 October 2004, Agra, 2004, Singh, R, Lohani, B., Bajpai, K.N.
698. Registration of laser point clouds for a large and complex building, Proceedings of the third International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 18-19 October 2004, Agra, 2004, Ekta, A., Lohani, B.
699. Status of Education in Space Science at IITs and Isc, India-United States Conference and Exhibition on Space Science, application and Commerce, June 21-25, 2004, Bangalore, 2004, Dikshit, O., Lohani, B.
700. Quality control in concrete construction, National Seminar on Materials and their Application in Civil Engineering, NIT, Hamirpur, August 2004, Mishra, Sudhir, Amit Gupta and Nikhil Singh.
701. Provisions relating to concrete durability in Indian and some other specifications, National Seminar on Advances in Building Construction and Rehabilitation Technology, IIT Kanpur, March 2004, Misra, Sudhir.
702. Predicting Dam Break Flow by using Artificial Neural Networks, Proc. Intl. Conf. on Hydraulic Engineering: Research and Practice (ICON-HERP-2004), October 26-28, 2004, IIT Roorkee, Roorkee, India, 2004, Mohapatra, P.K., Jha, S.K. and Jain, A.
703. Proceedings of the Third International Symposium on New Technologies for Urban Safety of Mega Cities in Asia at Agra on October 18-19, 2004 (Editor), Misra, Sudhir.
704. Performance of Column-Foundation Sub-Assemblies under Monotonic Lateral Load, Proceedings of Thirteenth World Conference on Earthquake Engineering, Vancouver, Canada, 1-6 August 2004, Paper No.634, Arlekar, J.N., and Murty, C.V.R.
705. Shear-Moment Interaction for Design of Steel Beam-to-Column Connections, Proceedings of Thirteenth World Conference on Earthquake Engineering, Vancouver, Canada, 1-6 August 2004, Paper No.635, Arlekar, J.N., and Murty, C.V.R.
706. Dependence of Ductility and Energy Dissipation on Limiting Strain States in Seismic Design of RC Columns, Proceedings of Thirteenth World Conference on Earthquake Engineering, Vancouver, Canada, 1-6 August 2004, Paper No.2415, Dasgupta, K., and Murty, C.V.R.

707. Effect of Compressive Load on Line Pile Group., Indian Geotechnical Conference, Warangle, India, 2004, Joshi, A. C. and Patra, N. R.
708. Hydro-2004, VNIT Nagpur, December 2004, Co-chairing a session and a contributed paper, Srivastava, R.
709. Parameterization of Ion Induced Nucleation of Sulphuric Acid and Water, 51-54, Indian Aerosol Science and Technology Proceedings, 2004, Kumar, S, Tripathi, S.N, M.S. Modgil and E.R. Lovejoy.
710. Intercomparison of aerosol parameters over Kanpur, Northern India retrieved from ground based radioemeter and satellite data, 208-212 Indian Aerosol Science and Technology Proceedings, 2004, Dey, S, Tripathi, S. N., A. Chandel, S. Srivastva, and R. P. Singh.
711. Battened built-up beam-columns under cyclic loads Name of Conf. 13th World Conf. on Earthquake Engineering Venue Vancouver, B.C., Canada Dates August 1-6, 2004 Publishers IAEE Page no. Paper No. 67 on CD-ROM, Sahoo, D. and Rai, D. C.
712. Seismic design of concrete pedestal supported tanks Name of Conf. 13th World Conf. on Earthquake Engineering Venue Vancouver, B.C., Canada Dates August 1-6, 2004 Publishers IAEE Page no. Paper No. 230 on CD-ROM, Rai, D. C. and Singh, B.
713. Influence of fiber wrap retrofitting on gravity designed RC beam column joints under cyclic loading Name of Conf. 3rd International Symposium on New Technologies for Urban Society of Mega Cities in Asia Venue Agra Dates Oct. 18-19 Publishers IAEE Page no. 27-36, Bajpai, K. K., Murty, C. V. R. and Rai, D. C.
714. Check pointing Fortran/MPI programs for Computational Grid, Proceedings of Advances in Computer Science and Technology St Thomas Virgin Islands, USA, pp 134-139, 2004, Mishra Chaitanya, Manav Ratan Mittal and Sanjeev K Aggarwal.
715. An Inlining Technique in Jikes RVM to improve Performance, Proceedings of Advances in Computer Science and Technology St Thomas Virgin Islands, USA, V pp 140-144, 2004, Kumar Ritesh, Ragesh Jaiswal and Sanjeev K Aggarwal.
716. From Specifications to Code Compliance Checkers, Proceedings of 23rd International Conference on Applied Informatics Software Engineering (SE 2005) Innsbruck, Austria, pp 287-292, Feb 2005, Prasanth Y and Sanjeev K. Aggarwal.
717. OlyMPIx - A Program Parallelization Tool using MPI on Computational Grids, Proceedings of 23rd International Conference on Applied Informatics, Parallel and Distributed Computing and Networks, (PDCN

- 2005) Innsbruck, Austria, pp 307-312, Feb 2005, Vikram K, Kumar Avijit and Sanjeev K Aggarwal.
718. A Technique for Extracting Keyword Based Rules from a Set of Programs, Proceedings of 9th European Conference on Software Maintenance and Re-engineering (CSMR), Manchester UK, pp 217-225, March 2005, Dubey Alpana, Pankaj Jalote and Sanjeev K Aggarwal.
719. The Discrete Time Behavior of Lazy Linear Hybrid Automata, Proceedings of the Eighth International Workshop on Hybrid Systems Computation And Control, LNCS 3414, Pages 55-69, March 2005, Manindra Agrawal and P. S. Thiagarajan.
720. Automorphisms of Finite Rings and Applications to Complexity of Problems, Invited talk. Proceedings of the 22nd Symposium on Theoretical Aspects of Computer Science, LNCS 3404, Pages 1-17, Feb 2005, Manindra Agrawal and Nitin Saxena..
721. Revisiting MAC Design for an 802.11-based Mesh Network, Third Workshop on Hot Topics in Networks (Hot Nets-III), 15-16, San Diego, CA, USA, Nov 2004, Bhaskaran Raman and Kameswari Chebrolu.
722. Modeling Gene Regulatory Network in Fission Yeast Cell using Hybrid Petri Nets, ICONIP 2004, Springer LNCS 3316, pp1310-1315, 2004, Ranjith Vasireddy and Somenath Biswas.
723. RAM Simulation of BGS model of Abstract state machines, Proc. ASM 2005 12th International Workshop on Abstract State Machines, Paris, pp 377 – 386, March 2005, Comandur Seshadhri, Anil Seth and Somenath Biswas.
724. Check pointed Early Load Retirement, In Proceedings of the 11th IEEE International Symposium on High-Performance Computer Architecture, Pages 16-27, February 2005, N. Kirman, M. Kirman, Mainak Chaudhuri and J. F. Martinez.
725. Distributed Set Expression Cardinality Estimation, Proceedings of the 30th International Conference on Very Large Databases (VLDB), pp312-323, 2004, Sumit Ganguly, Abhinandan Das, Minos N Garofalakis and Rajeev Rastogi.
726. Estimating Frequency Moments of Data Streams Using Random Linear Combinations, Proceedings of the 8th International Workshop on Randomized Algorithms (RANDOM), pp 369-380, 2004, Sumit Ganguly.
727. Towards Optimal Sensor Placement with Hypercube Cutting Planes, Invited Paper Proceedings of IEEE Conference on wireless Communication and Wireless Networks Computing (WCNC 05), March 2005, Siddhartha Chaudhuri, R.K. Ghosh and Sajal K. Das.

728. Resilient Dissemination of Events in a Large Scale Event Notification Service System, IEEE International Conference on Technology E-Commerce and E-Service (IEEE 05) Hong Kong, pp502-507, 2005, Chit Htuy Lwin, H. Mohanty, R.K. Ghosh and G. Chakra borty.
729. Team Transaction A New Transaction Model for Mobile Ad Hoc Networks, In Proceedings of ICDCIT 2004 Bhubaneswar LNCS 3347 Page 127-134, Dec 2004, Vijay K.Garg Ankur Gupta, Nitin Gupta, R.K. Ghosh, and M. M. Gore.
730. Effect of Data Encryption on Wireless Ad Hoc Network, Performance. In Proceeding of IWDC, LNCS 3326 Kolkata, 2004 Pages 258-263 December 2004, Vijay K.Garg and R.K.Ghosh.
731. Just-in-Time Delivery of Events in Event Notification Service, Systems for Mobile Users, In proceedings of Intelligence in Communication System,IFIP international Conference, Intellcomm 2004 Bangkok Thailand November 23-26, LNCS 3288, Pages 190-198, 2004, Chit Htuy Lwin, H.Mohanty and R.K.Ghosh.
732. Causal Ordering in Event Notification Service Systems for Mobile User, International Conference on Informance technology Coding and Computing Track on Mobile Enterprise Enabling Technology and Application, pp 735-741, April 2004, Chit Htuy Lwin ,H. Mohanty and R.K. Ghosh.
733. Integrations of wireless local area networks Wlans and wireless wide area networks (wwans), Mobility conference pp 85-89, November 2004, Vijay K. Garg, R.K. Ghosh and S. Laxpati.
734. Interworking of HIPPERLAN Type Two (HIPPELAN/2) and UMTS', in proceeding of Mobility Conference 2004, Singapore, pp 85-94, Vijay K.Garg and R.K. Ghosh.
735. A Hybrid Routing Protocol for Large Scale Mobile Ad Hoc Networks with Mobile Backbones, Proceedings of 12th International conference on Advanced Computing and Communication (ADCOM 2004), at Ahmedabad, India, December 2004, Md. Nasir Ahmed, Ashish Pandey, Nilesh Kumar and Phalguni Gupta.
736. Power Aware Virtual Node Routing Scheme in Ad Hoc Networks, Proceedings of IASTED International Conference on Wireless Networks and Emerging Technologies (WNET 2004), Banff, Canada, July 2004, Phalguni Gupta, A. K. Kush & C. J. Hwang.
737. Comparison of Iris Recognition Algorithms, Proceedings of International Conference on Intelligent Sensing and Information Processing ICISIP'04) at Chennai, India, 2004, Mayank Vatsa, Richa Singh and Phalguni Gupta.

738. Automatic Facial Feature Extraction for Face Recognition Proceedings of Second Workshop on Computer Vision, Graphics and Image Processing (WCVGIP' 04), in India, 2004, Phalguni Gupta, Mayank Vatsa and Richa Singh.
739. Iris based Human Verification Algorithms Proceedings of International Conference on Biometric Authentication (ICBA'04) in Hong Kong, July 2004, B. R. Meena, Mayank Vatsa, Richa Singh and Phalguni Gupta.
740. Watermarking of MPEG-4 Videos Proceedings of International Conference on Biometric Authentication (ICBA'04) held in Hong Kong, July 2004, Phalguni Gupta and Abhinav Gupta.
741. Assigning tasks in 24-hour software development model accepted in Asia Pacific Sw Engg Conference, Busan, Korea, 2004, Pankaj Jalote and G.Jain.
742. Reliability growth in software products Reliability (ISSRE-2004), Saint Melo, France, Oct 2004, Pankaj Jalote and B.Murphy.
743. Measuring reliability of software products, Industrial track in Int. Symp. on Sw Reliability (ISSRE-2004), Saint Melo, France, Oct 2004, Pankaj.Jalote and B.Murphy, M.Garzia, B.Erez.
744. Bilingual lexical Processing Contrastive Polyseminer, Proceeding of 6th Tokyo Conference of Psycholinguistics, March 2005, S Bannerjee, A M Raina and Harish Karnick.
745. Processing Hindi-English Contrastive polysemies Proceeding of International Conference of speech and Language Technology, 2004, Tata Mcgrawhill, S Bannerjee, A M Raina, Harish Karnick and B N Patnaik.
746. A Decomposition method for support vector clustering 2nd International conf.on Intelligent sensing and Information Processing,M Palanaswami eds Jan 2005,Chennai India, VV Saradhi and Harish Karnick.
747. Improved SVM Performance through Bootstrapping Ist National Conf.on image Processing TV Ananthpadhmarabha, VK Reddy, pp78-181, 2005, V V Saradhi and Harish Karnick.
748. Conceptudizing Space in International Workshop on Spatial Issues in Language and Vission Mar 2005, Harish Karnick
749. Optical Wireless Internet: Delay Optimization International Conference on Broadband Networks (Broad Nets' 04) pp.736-738, 2004, Ahmed Mahdy, Jitender S. Deogun and S.K Mehta.
750. End-to-End Delay Heuristics for Adaptive Optical Wireless Networks), 12th IEEE Annual Meeting of the International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems

- (MASCOTS' 04)}, pp 383-390, 2004, Ahmed Mahdy, Jitender S. Deogun and S K Mehta.
751. Stochastic Scheduling of Active Support Vector Learning Algorithms, Proc. ACM Symposium on Applied Computing (SAC'05), Santa Fe, New Mexico, March 2005, Pabitra Mitra, G. Pandey and H. Gupta.
 752. Gene Selection and Clustering in Microarray Data, Proceedings of the International Conference on Pattern Recognition (ICPR2004), Cambridge, UK, August 2004, Pabitra Mitra and D. Dutta Majumder.
 753. Migrating Software to Hardware on FPGAs, International Conf. on Field Programmable Technologies, ICFPT04, Brisbane, Australia, Rajat Moona.
 754. Variable resizing for area improvement in behavioral Synthesis, International Conf. on VLSI Design, Kolkata, Jan 3-7, 05, Rajat Moona and R Gopalakrishnan.
 755. Measuring and Tuning Real-Time Performance of Embedded Systems, Embedded System Conference, San Francisco and March 6-10, 2005. (Embedded System Conference, Munich, November, 9-11, 2004), Rajat Moona and Russell A. Klein.
 756. Digital Learning without a Computer: Learning Tools for Rural India, In the 7th International Conference of Human Services Information Technology. Applications Information and Communication Technology (ICT) and Social Inclusion August 24- 27, 2004 Hong Kong, Amitabha Mukerjee and Sarala Verma.
 757. Dancing Puppets, An Innovative Approach to Learning Programming Proceedings of International Conference on Engineering Education Gainesville, October 17-21 2004, Amitabha Mukerjee, Eakta Jain, Nidhi, Riya Bhattacharya, Utsav Maitra, Gaurav Sharma and Bipin Agravat.
 758. Low-Cost Interfaces for Learning Programming, Proceedings of International Conference on Engineering Education Gainesville, October 17-21 2004, Amitabha Mukerjee, Anjali Kulkarni, Sarala Verma, Ritu Singh and Abhay Agarwal.
 759. Handling Occlusions in Monocular Surveillance Systems, Proceedings of the Fourth Indian Conference on Computer Vision, Graphics and Image Processing, Kolkata, December 16-18, 2004, pp. 52-57, Prithwijit Guha, Nisarg Vyas, Amitabha Mukerjee and K. S. Venkatesh.
 760. Learning actions from Percepts Stepping stone to complexity. Symposium on Language and Vision, Kanpur, March 24-25, 2005, Amitabha Mukerjee, RK Rao and P Vaghela.

761. Pre-Linguistic Verb Acquisition From Repeated Language, Exposure for Visual Events Proceedings International Conference on Natural Language Processing (ICON), Hyderabad, India, December 19-22, 2004, Amitabha Mukerjee, Pradeepsinh B Vaghela, and V Shreeniwas.
762. A unified Computational Lexicon for Hindi-English code-switching Proceedings International Conference on Natural Language Processing (ICON), Hyderabad, India, December 19-22, 2004, Amitabha Mukerjee, Achla Raina, Pankaj Goyal, and Pushpraj Shukla.
763. Incorporating Pragmatic-Semantic Domain Lexicons for Converting Arithmetic Word Problems into Symbolic Equations Proceedings International Conference on Natural Language Processing (ICON), Hyderabad, India, December 19-22, 2004, Amitabha Mukerjee, Himanshu Gupta, Kumar Gaurav, Achla M Raina.
764. Towards Frame Semantic Annotation of Hindi Corpora Symposium on Morphology Phonology and Language Engineering (SIMPLE'05), 5-7 February, 2005, IIT Kharagpur, Amitabha Mukerjee, Achla M Raina and Ankit Soni.
765. Semantic Summarization of Multilingual Documents Optical Character Recognition with Workflow and Document Summarization, IIIT Allahabad, 19-20 March 2005, Amitabha Mukerjee.
766. Multilingual Question Answering, International Workshop on Natural Language Understanding and Cognitive Science (NLUCS-04) Portugal, April 2004, Amitabha Mukerjee, Pushpraj Shukla, Pankaj Goyal, Kumar Kapil and Achla M Raina.
767. Amitabh Mukerjee, Prateek Jain, Manav Mittal, Sumeet Kumar, and Achla M Raina, Anaphora Resolution in Multi-Person Dialogue 5th SIGdial Workshop on Discourse and Dialogue Boston, April 30 and May 1, 2004.
768. Conceptual Design from Geons An Interactive Evolution Approach Proceedings Third International Conference on Visual and Spatial Reasoning in Design (VR'04) MIT, Cambridge, USA, 22-23rd July, 2004, Amitabha Mukerjee and Hemant Muley.
769. An exploratory Interface of Indian Classical Music, Using experiential Framework by in Computer Music Modelling and Retrieval, Esbjerg, Denmark, May 2004, LNCS 3310, Debopam Roy, Nagaraju Pappu and T V Prabhakar.
770. Bhatkande a database for Indian Classical Music, in Frontiers of Research in Speech and Music, Bhubaneswar, Jan 2005, T V Prabhakar.

771. Secure Multicast Model for Ad-hoc Military Networks In Proc. of IEEE Int'l Conf. on Networks (ICON 2004), Singapore, November, 2004, Dheeraj sanghi, M. Choudhary and P. Sharma.
772. An Engineering Perspective of Machine Translation AnglaBharti-II and AnuBharti-II Architectures,Invited Paper,Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (iSTRANS- 2004), Tata Mc Graw Hill, New Delhi, November17-19, 2004, R.M.K Sinha.
773. Pre-/post-positions Selection in Text Generation for Hindi, and other Indian Languages for Translation from English Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (ISTRANS- 2004), Tata Mc Graw Hill, New Delhi, pp: 40-45, November 17-19, 2004, R.M.K. Sinha and Anil Thakur.
774. Synthesizing Verb Form in English to Hindi Translation, Case of Mapping Infinitive and Gerund in English to Hindi, Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (iSTRANS- 2004), November 17-19, 2004, Tata Mc Graw Hill, New Delhi, pp: 52-55, R.M.K. Sinha and Anil Thakur.
775. Disambiguation and Mapping Strategies for Adverbial Chunks For Machine Translation, Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (iSTRANS-2004), November 17-19, 2004, Tata Mc Graw Hill, New Delhi, pp: 95-101, R.M.K. Sinha and Anil Thakur.
776. Multi-word Expressions in English and Hindi: Problems in Contextualization, Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (ISTRANS- 2004), November 17-19, 2004, Tata Mc Graw Hill, New Delhi, pp: 111-116, R.M.K. Sinha and Anil Thakur.
777. Identification of Subject and Object NPs in Hindi Proceedings of International Symposium on Machine Translation NLP and Translation Support System (ISTRANS- 2004),, Tata Mc Graw Hill, New Delhi, pp 166-171, November 2004, R.M.K. Sinha and Anil Thakur.
778. Definiteness Marking Strategies in Hindi and their Mapping to English for Machine Translation Proceedings of International Symposium on Machine Translation, NLP and Translation Support System (iSTRANS-2004), Tata Mc Graw Hill, New Delhi, pp: 178-181 November 17-19, 2004, R.M.K. Sinha and Anil Thakur.
779. Syntax and Semantics of kaa in Hindi Proceedings of International Symposium on Machine Translation, NLP and Translation Support

- System (ISTRANS- 2004), November 17-19, 2004, Tata Mc Graw Hill, New Delhi, pp: 226-229, R.M.K. Sinha and Anil Thakur.
780. Rules for Determining the Head of the Relative Clause Constructions in Hindi for Machine Translation, from Hindi to English, 26th All India Conference of Linguists (26THAICL) Nov 29-Dec1 2004, Shillong, Anil Thakur and R.M.K. Sinha.
781. Disambiguation of kyaa in Hindi for Hindi to English Machine translation, Sixth International Conference of South Asian Languages (ICOSAL-6), Hyderabad, INDIA, pp 6-8 January 2005, R.M.K. Sinha and Anil Thakur.
782. Semantic Constraints in Pre-/post-position Disambiguation, In Reverse MT National Seminar on Contemporary Perspective on the Analysis of Language, March, pp 28-29, 2005, University of Delhi, R.M.K. Sinha and Anil Thakur.
783. Simulation of the gaseous discharge in an electromagnetic field, Proceedings of the 13th National Power Systems Conference, Chennai, Dec 2004, Nandini Gupta and Ruchita Khattry.
784. A stochastic model for electric tree progression due to partial discharges within tree tubules, Proceedings of the IEE International Conference on Energy, Information Technology and Power sector, Kolkata, January 2005, Nandini Gupta, Amit Mahajan, Satbir Singh and Elan K Seralathan.
785. Principles of AE techniques applied to Power Transformers: A general review, Proceedings of the National Workshop on Online Diagnosis of power transformers by acoustic emission techniques, CPRI, Bangalore, February, 2005, Nandini Gupta.
786. A unified power quality conditioner for voltage regulation of critical load bus, Proceedings. IEEE-PES General Meeting, pp. 471-476, Denver, 2004, Arindam Ghosh, A. K. Jindal and A. Joshi.
787. Trajectory sensitivity analysis of tscs compensated power systems, Proceedings. IEEE-PES General Meeting, pp. 1454-1459, Denver, 2004, A. Ghosh, D. Chatterjee, P. Bhandiwad and M. A. Pai.
788. Flying capacitor multilevel inverter and its applications in series compensation of transmission lines, Proceedings. IEEE-PES General Meeting, pp. 1516-1521, Denver, 2004, A. Ghosh, A. Shukla and A. Joshi.
789. A flying capacitor multilevel inverter based STATCOM, International Conference on Power System: Challenges to Electric Utilities in the New Millennium (ICPS 2004), Vol. 1, pp. 249-255, Kathmandu, Nepal, November, 2004, A. Ghosh, A. Shukla, and A. Joshi.

790. Active filtering and voltage regulation using a unified power quality conditioner (UPQC), International Conferenec. on Power System: Challenges to Electric Utilities in the New Millennium (ICPS 2004), Vol. 2, pp. 793-799, Kathmandu, Nepal, November, 2004, A. Ghosh, A. K. Jindal and A. Joshi.
791. Assessment of transient stability margin in a TCSC compensated system using trajectory sensitivity, Proceedings. Thirteenth National Power Systems Conference, Vol. 1, pp. 19-24, IIT Madras, December, 2004, A. Ghosh, D. Chatterjee and M. A. Pai.
792. A three-level flying capacitor inverter for SSSC applications, Proceedings. Thirteenth National Power Systems Conference, Vol. 1, pp. 58-63, IIT Madras, December, 2004, A. Ghosh, A. Shukla and A. Joshi.
793. Comparison of inverter topologies for the dynamic voltage regulator (DVR), Proceedings. Thirteenth National Power Systems Conference, Vol. 1, pp. 584-588, IIT Madras, December, 2004, S. V. Iyer, A. Ghosh and A. Joshi.
794. Performance of a rectifier-supported dynamic voltage restorer in a custom power park, Proceedings. Thirteenth National Power Systems Conference, Vol. 1, pp. 589-594, IIT Madras, December, 2004, A. Ghosh, A.K. Jindal and A. Joshi.
795. Bifurcation in the sliding mode control of an inverter for DSTATCOM, Proceedings. Thirteenth National Power Systems Conference, Vol. 2, pp. 755-760, IIT Madras, December, 2004, R. Gupta and A. Ghosh.
796. An Optimum UPQC with Minimum VA Requirement and Mitigation of Unbalanced Voltage Sag, Conference Proceedings of International Conference on Power Systems, ICPS2004, Kathmandu, Nepal, , pp. 79-82, Nov. 2004, S. P. Das and Y. Y. Kolhatkar.
797. Electric Power Industry Restructuring in India: Present Scenario and Future Prospects, Proceedings. of the International Conference on Electric Utility Deregulation and Restructuring and Power Technologies, held in Hong Kong during 5-8 April 2004, pp.20-23, S.C. Srivastava and S.N. Singh.
798. Implications of Energy Tax on Generation Expansion Plan & GHG Emission: A Case Study on Indian Power Sector Proceedings. of International Conference on Power System Technology (Powercon 2004), Singapore, 21-24 Nov 2004, S. Yamgar, G. Nanda, S.C.Srivastava, S.N.Singh, P.Gupta, Dharam Paul and Ram.M. Shrestha.
799. Implications of Carbon Tax on Generation Expansion Plan & GHG Emission: A Case Study on Indian Power Sector Proceedings of

- International Conference on Power System (ICPS 2004), Kathmandu, Nepal, pp. 530-535., 3-5 Nov 2004, S. Yamgar, G. Nanda, S.C.Srivastava, S.N. Singh, P.Gupta, Dharam Paul and Ram M. Shrestha.
800. A LQG Based Load Frequency Controller in a Competitive Electricity Environment, Proceedings. of International Conference on Power System (ICPS 2004), Kathmandu, Nepal, pp.559-564,3-5 Nov 2004, Barjeev Tyagi and S.C. Srivastava.
801. Enhancement of Power System Loadability with Optimal Allocation of TCPAR in Competitive Electricity Market using MILP, Proceedings. of International Conference on Power System (ICPS 2004), Kathmandu, Nepal, pp. 705-710, 3-5 Nov 2004, Sanjoy Parida, Ashwani Kumar, S.C. Srivastava and S.N. Singh.
802. Optimal Placement of SVC for Static and Dynamic Voltage Security Enhancement, Proceedings. of International Conference on Power System (ICPS 2004), Kathmandu, Nepal, , pp. 131-136, 3-5 Nov 2004, M.K. Verma and S.C. Srivastava.
803. Coordination of Power System Stabilizer, FACTS and HVDC Controllers for Damping Oscillations in a Multi-machine System, Proceedings. of International Conference on Power System (ICPS 2004), Kathmandu, Nepal, , pp. 421-426, 3-5 Nov 2004, B. Kalyan Kumar, S.N. Singh and S.C. Srivastava.
804. Static cum Dynamic Criteria of SVC Placement for Voltage Stability Enhancement, Proceedings of International Conference on Power System (ICPS 2004), Kathmandu, Nepal, pp.137-142, 3-5 Nov 2004, C.P. Gupta, S.C. Srivastava and R.K. Varma.
805. Power Flow Analysis with Optimally Placed D-STATCOM in Distribution System, 13th National Power System Conference, IIT Madras (Chennai), pp. 128-133. December 27-30, 2004, Praveen Tripathy, S.N. Singh and S.C. Srivastava.
806. Coordination of Power System Stabilizers using Optimal Control Feedback with Pseudo-Decentralization, 13th National Power System Conference, IIT Madras (Chennai) , pp. 414-418, December 27-30, 2004, B. Kalyan Kumar and S.C. Srivastava.
807. A Mathematical Framework for Frequency Linked Availability – based Tariff Mechanism in India, 13th National Power System Conference, IIT Madras (Chennai), pp. 516-521. December 27-30, 2004, Barjeev Tyagi and S.C. Srivastava.
808. Parallel Radial Basis Function Neural Network Based Fast Voltage Estimation for Contingency Analysis, International Conference on

- Electric Utility Deregulation and Restructuring and Power Technologies, Hong Kong, pp.780-784, 5-8 April 2004, T. Jain, L. Srivastava and S.N. Singh.
809. Electric Power Industry Restructuring in India: Present Scenario and Future Prospects, International Conference on Electric Utility Deregulation and Restructuring and Power Technologies, Hong Kong , pp.20-23, 5-8 April 2004, S.N. Singh and S.C. Srivastava.
810. Enhancement of Power System Loadability with Optimal Location of TCPAR in Competitive Electricity Markets Using MILP, International Conference on Power Systems in Kathmandu, Nepal, pp. 705-710, Nov 3-5, 2004, Ashwani Kumar, Sanjoy Parida, S.C. Srivastava and S.N. Singh.
811. Power Flow Control using Multi-converter FACTS Controllers, International Conference on Power Systems, Kathmandu, Nepal, pp. 711-71, Nov 3-5, 2004, O. P. Dwivedi, J.G. Singh and S.N. Singh.
812. Analysis of Different Operating Constraints of Generalized Unified Power Flow Controller, International Conference on Power Systems Kathmandu, Nepal, pp. 308-313, Nov 3-5, 2004, S.K. Srivastava, K.G. Upadhyay and S.N. Singh.
813. Electricity Trading in Competitive Power Market: An Overview and Key Issues, International Conference on Power Systems in Kathmandu, Nepal, pp. 571-576, Nov 3-5, 2004, Prabodh Bajpai and S.N. Singh.
814. Coordination of Power System Stabilizer, FACTS and HVDC Controllers for Damping Oscillations in a Multi-Machine System, International Conference on Power Systems Kathmandu, Nepal, pp. 421-426, Nov 3-5, 2004, B. Kalyan Kumar, S.N. Singh and S.C. Srivastava.
815. Power Quality Assessment Using Polynomial Approximation Technique, International Conference on Power Systems Kathmandu, Nepal, pp. 348-353, Nov 3-5, 2004, U.D. Dwivedi and S.N. Singh.
816. Implication of Corban Tax on Generation Expansion Plan & GHG Mitigation: A Case study on Indian Power Sector, International Conference on Power System Kathmandu, Nepal, pp. 530-535, Nov 3-5, 2004, S. Yamagar, G. Nanda, S.C. Srivastava, S.N. Singh, P. Gupta, D. Paul and R.M. Shrestha.
817. Implication of Energy Tax on Generation Expansion Plan & GHG Mitigation: A Case study on Indian Power Sector, International Conference on Power System Technology (POWERCON04), 21-24 November 2004, Singapore, S. Yamagar, G. Nanda, S.C. Srivastava, S.N. Singh, P. Gupta, D. Paul and R.M. Shrestha.

818. On-Line Load Flow Analysis Using Radial Basis Neural Network, 6th International Conference on Cognitive Systems (ICCS-2004) New Delhi, December 14-15, 2004, J. Krishna, L. Srivastava, M. Pandit and S.N. Singh.
819. Identification and Determination of Line Overloading Using Artificial Neural Network, IEE Sponsored International Conference on Energy, Information Technology & Power Sector (PEITSICON-2005), Kolkata, pp. A13-A17, 28-29 January 2005, S. Sharma, L. Srivastava, M. Pandit and S.N. Singh.
820. Power Flow Analysis with Optimally Placed D-STATCOM in Distribution System, 13th National Power System Conference, IIT Madras (Chennai), December 27-30, 2004, pp. 128-133, Praveen Traipathy, S.N. Singh and S.C. Srivastava.
821. Simulation and Analysis of Unified Power Flow Controller Using SIMULINK, 13th National Power System Conference, IIT Madras (Chennai), December 27-30, 2004, pp. 1048-1054, O.P. Dwivedi, J.G. Singh and S.N. Singh.
822. Bidding and Gaming in Competitive Power Market: An Overview and Key Issues, 13th National Power System Conference, IIT Madras (Chennai), December 27-30, 2004, pp. 338-346, P. Bajpai and S.N. Singh.
823. On-line Contingency Analysis Using Counter-propagation Neural Network, 13th National Power System Conference, IIT Madras (Chennai), December 27-30, 2004, pp. 333-337, J. Krishna, L. Srivastava, M. Pandit and S.N. Singh.
824. Analysis of Internal Operating Limits of UPFC for Power Flow Control, 13th National Power System Conference, IIT Madras (Chennai), December 27-30, 2004, pp. 890-895, S.K. Srivastava, L.N. Giri, K.G. Upadhyay and S.N. Singh.
825. A study of Organic semiconductor Materials & Device structures for Application in Optical Detectors, SOOP-2005 NPL, New Delhi 19-21 Jan 2005, R.S. Anand and Sheetal Barai.
826. Remotely Operable Load Break Switch for Distribution Network, IEEE Power Engineering Society General Meeting, San Francisco, California, USA, June 12-16, 2005, R.P. Gupta, R. K. Varma, S. C. Srivastava, and R. Arora.
827. Agent Based Software Integration at Distribution Control Center, Proceedings of IEEE Power Engineering Society General Meeting,

- Denver, Colorado, USA, June 6-10, 2004, pp. 522-527, R.P. Gupta and R. K. Varma.
828. Substation Automation using IEC-61850, Proceedings of 13th National Power System Conference, Indian Institute of Technology Madras, India, December 27-30, 2004, pp. 300-304, R.P. Gupta and Nitish Srivastava.
829. Feasibility Study of Data Communication for Power Distribution Automation, Proceedings of International Conference on Power Systems (ICPS2004), Kathmandu, Nepal, November 3-5, 2004, pp. 450-454, R.P. Gupta and Saurabh Bajpai.
830. A Comparative Study of Substation Automation Communication Protocols: IEC61850, DNP3.0 and UCA2.0, Proceedings of 10th International Conference on Electrical Engineering (ICEE-2004), Organized by the Institution of Electrical Engineers of Japan, Sapporo, Japan, July 4-8, 2004, vol. 2, pp. 856-861, R.P. Gupta and M. Pandey.
831. Data Communication Architecture using IEC61850 Protocol for Substation Automation, Proceedings of the International Conference on Planning and Operation of Reliable Distribution Systems, Council of Power Utilities, New Delhi, India, April 15-16, 2004, pp. 113-121, R.P. Gupta, M. Pandey, and N. Srivastava.
832. Distribution Automation Simulator, Proceedings of the 2nd International Conference on Electric Utility Deregulation, Restructuring and Power Technologies (DRPT-2004), Organized by IEEE Joint Chapter of Power Engineering, Hong Kong, April 5-8, 2004, vol. 1, pp. 161-166, R.P. Gupta and G. Tiwari.
833. Substation Automation Communication Protocol, Proceedings of the International Conference on Systemics, Cybernetics and Informatics (ICSCI-2004), Pentagram Research Center Pvt. Ltd., Hyderabad, India, February 12-15, 2004, pp. 499-503, R.P. Gupta and N. Srivastava.
834. Web Based Energy Audit and Accounting Software for Power Distribution Utilities, Proceedings of the International Conference on Electric Supply Industry in Transition: Issues and Prospects, Asian Institute of Technology, Thailand, January 14-16, 2004, pp. 9/26-37, R.P.Gupta and A. Khastagir.
835. Development and Implementation of Power Distribution Automation System, Workshop on Best Practices of SEBs/Utilities, New Delhi, India, December 2, 2004, pp. 46-47, R.P. Gupta and S.C. Srivastava.
836. A Comparative Study of IEC61850 Communication Protocol with DNP3.0 and UCA2.0, Proceedings of National Workshop on Communication Protocol for Power System Automation, Central Power

- Research Institute, Bangalore, India, January 22-23, 2004, pp. IV / 1-6, R.P. Gupta and Mitali Pandey.
837. Distribution Automation Software and Open Architecture, Proceedings of Workshop on Distribution Automation, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal, May 23-26, 2004, R.P. Gupta.
838. RTU and Data Communication for Distribution Automation, Proceedings of Workshop on Distribution Automation, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal, May 23-26, 2004, R.P. Gupta.
839. Sensors and Instrumentations for Distribution Automation, Proceedings of Workshop on Distribution Automation, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal, May 23-26, 2004, R.P. Gupta.
840. IT Solutions for Power Distribution Utilities, Proceedings of Workshop on Distribution Automation, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal, May 23-26, 2004, R.P. Gupta.
841. Future Substation Automation using IEC-61850 Protocol, Proceedings of Workshop on Distribution Automation, Institute of Engineering, Tribhuvan University, Kathmandu, Nepal, May 23-26, 2004, R.P. Gupta.
842. Distribution Automation Software and Open Architecture, Proceedings of Workshop on Electric Power Distribution: Reforms, Automation and Management, Indian Institute of Technology Kanpur, India, May 10-14, 2004, pp. RPG/1-17, R.P. Gupta.
843. RTU and Data Communication for Power Distribution Automation, Proceedings of Workshop on Electric Power Distribution: Reforms, Automation and Management, Indian Institute of Technology Kanpur, India, May 10-14, 2004, pp. RPG/18-44, R.P. Gupta.
844. Information Solutions for Power Distribution Utilities, Proceedings of Workshop on Electric Power Distribution: Reforms, Automation and Management, Indian Institute of Technology Kanpur, India, May 10-14, 2004, pp. RPG/45-62, R.P. Gupta.
845. Extraction of Parameters of High Permittivity Ultrathin (0.5 – 2.0 nm) Gate Dielectrics, IEEE CAS 2004 Proceedings, 27th Edition, S. Kar.
846. Extraction of Parameters of High-K Gate Dielectrics from Admittance Data, Proceedings of the SEMATECH Workshop on Electrical Characterization and Reliability for High-K Devices, 2004, Samares Kar, Surendra Rawat, Shaloo Rakheja, and Dharmendar Reddy.
847. High Permittivity Ultrathin (0.5- 1.5 nm) Gate Dielectrics for Sub-65-nm Feature Size Integrated Circuits, Indo-US Materials Research Workshop on Collaboration and Networking, Pune, December 2004, Samares Kar.

848. Electrical Parameter Extraction for Sub-60-nm CMOS Transistors with High Permittivity Ultrathin (0.46 – 1.94 nm) Gate Dielectrics, National Conference on Physics of Electronic Materials and Devices, Sambalpur University, Sambalpur, February 2005, Samares Kar and Dharmendar Reddy.
849. On the design of serially concatenated nonsystematic feedback convolutional encoders, IEEE International Symposium on Information Theory and Applications (ISITA), Parma, Italy, Oct. 2004, Francesca Vatta, Bartolo Scavino, Adrish Banerjee, and Daniel J. Costello, Jr.
850. Design Aspects of High-Performance Indoor Optical Wireless Transceivers, International Conference on Personal Wireless Communication -2005, Jan. 23-25, New Delhi (ICPWC-2005), Joseph John, Chaturi Singh, Joseph John, Y.N. Singh and K.K. Tripathi.
851. An improved noise rejection receiver model for indoor optical wireless systems using wavelet de-noising technique, International Conference on Personal Wireless Communication -2005, Jan.23-25, New Delhi (ICPWC-2005), A. Sivabalan and Joseph John.
852. Simulation and Optimisation of Intensity Profile of an Optical Transmitter for High-Speed Wireless Local Area Networks, Seventh International Conference on Optoelectronics, Fiber Optics and Photonics, Dec.9-11, 2004, Cochin University of Science & Technology, Kerala. Paper LTW-P2, Chaturi Singh, Joseph John, Y.N. Singh and K.K. Tripathi.
853. Propagation Measurements of Indoor Infrared Channels, Seventh International Conference on Optoelectronics, Fiber Optics and Photonics, Dec.9-11, 2004, Cochin University of Science & Technology, Kerala. Paper LTW-P19, K. Smitha, Joseph John.
854. Multi-transmitter Indoor Optical Wireless Systems, Seventh International Conference on Optoelectronics, Fiber Optics and Photonics, Dec.9-11, 2004, Cochin University of Science & Technology, Kerala. Paper LTW-P20, A. Sivabalan, Joseph John.
855. Design of ECG-Based Anaesthesia Monitor/Pain Monitor,, Proceedings of the 26th Annual International Conference of the IEEE Engineering in Medicine and Biology, September 1 - 5, San Francisco, California, 2004, G.C. Ray, Gautam Das and Prama Ray.
856. Measurement of Impact of Music on Human Mind Using C-Monitor, International Symposium of Frontiers of Research on Speech and Music, Resource Centre for Indian Language Technology Solutions, Utkal

- University, Bhubaneswar, Orissa , 6 - 7 January, 2005, G.C. Ray and Gautam Das.
857. A Modified Ring Dielectric Resonator with Improved Mode Separation in MIC Environment, 34th European Microwave Conference, Animesh Biswas, K.V. Srivastava, V.V. Mishra and A. Biswas.
 858. A 1.575 GHz BiCMOS GPS low noise amplifier for low power application IEEE Topical Meeting on Silicon Monolithic Integrated Circuits in RF System Digest, pp. 179-182, Georgia Tech, Atlanta, USA, 2004.digest, pp.609-612, Amsterdam, 2004, Anshul Agarwal, Gawrah S. Chandal and A. Biswas,.
 859. Realization of broadband bandpass filter structure in suspended substrate using multiconductor line, Asia Pacific Microwave Conference, pp.136, New Delhi, 2004, S. Awasthi, A. Biswas and K.V.Srivastava.
 860. Analysis and design of on-chip spiral inductors for GaAs RF Ics, Asia Pacific Microwave Conference , pp.612, New Delhi, 2004, Mohan, V. Dykyy, G. Boeck and A. Biswas.
 861. Recurrent quantum Neural Networks – A New Approach to Cognitive Modeling, Int Conf Systemics, Cybernetics and Informatics, ICSCI-04, Feb, Hyderabad, Laxmidhar Behera and Indrani Kar.
 862. Adaptive control of robot manipulators using Quantum neural networks, International Conference on Intelligent Signal Processing and Robotics, ISPR-04, Feb, Allahabad, Indrani Kar and Laxmidhar Behera.
 863. A novel learning algorithm for feedforward networks using Lyapunov function approach, Proceedings Int. Conf. Int. Sensors and Inf. Processing, ICISIP-2004, Chennai, 277-282, Laxmidhar Behera, Swagat Kumar and Awhan Patnaik.
 864. Stochastic filtering and Speech Enhancement using a Recurrent Quantum Neural Network, Proceedings Int. Conf. Int. Sensors and Inf. Processing, ICISIP-2004, Chennai, 165-170, Laxmidhar Behera and Bharat Sundaram.
 865. On Balancing Control Strategies for a Reaction Wheel Pendulum, IEEE INDICON-2004, December 20-24, IIT Kharagpur, pp. 199-204, Bonagiri Bapiraju, K.N. Srinivas, Prem Kumar P, and Laxmidhar Behera.
 866. Quantum Memory and Pattern Retrieval, WCLC 2004, 17-19 Dec 2004, Indrani Kar, Richa Tayal and Laxmidhar Behera.
 867. Learning with single integrate and fire neuron, IEEE international joint conference on Neural Networks, 2005, A. Yadav, D. Mishra , R.N. Yadav, S. Ray, P.K. Kalra.

868. Bifurcation analysis on coupled modified Fitzhugh- Nagumo neuron model, The Second International Symposium on Neural Networks (ISNN 2005), D. Mishra, A. Yadav, S. Ray, P.K. Kalra.
869. Effects of Noise on the Dynamics of Biological Neuron Models, The Fourth IEEE International Workshop on Soft Computing as Transdisciplinary Science and Technology, 2005 D. Mishra, A. Yadav, S. Ray, P.K. Kalra.
870. Bifurcation analysis in modified Fitzhugh Nagumo neuronal model, National Conference on Control and Dynamical Systems, Bombay, 2005, D. Mishra, A. Yadav, S. Ray, P.K. Kalra.
871. Representation of Complex-Valued Neural Networks: A Real Valued Approach, Proceedings of International Conference on Intelligent Sensing and Information Processing, pp.331-335, Jan. 4-7, 2005, A. Yadav, D. Mishra, S. Ray, R.N. Yadav and P. K. Kalra.
872. Multilayer Feedforward neural network using generalised mean neuron, Proceedings of IEEE International Symposium on Communications and Information Society, Oct. 26-29, Sopporo, Japan., 2004, R.N. Yadav, Nimit Kumar, P.K. Kalra and Joseph John.
873. A Cost Optimal Parallel Algorithm for Histogram Image Matching, Proceedings of IEEE TENCON 2004, Chiang Mai-Thailand. 2004, K. V. Arya, P. Gupta and P.K. Kalra.
874. Chaotic Behavior in Neural Networks and FitzHugh- Nagumo Neuronal Model, ICONIP 2004 , pp. 868-873 2004, D. Mishra, A. Yadav, and P.K. Kalra.
875. Nonlinear dynamical analysis of single neuron models and study of chaos in brain, International Conference on Cognitive Science, Allahabad, pp 188 – 193, 2004, D. Mishra, A. Yadav, S. Ray, and P.K. Kalra .
876. The effect of synaptic bombardment in dynamics of biological neuron models, International Conference on Cognitive Science, Allahabad, pp 200 – 205, 2004, D. Mishra, A. Yadav, S. Ray and P.K. Kalra.
877. Chaos in firing rate recurrent neural network models, International Computer Engineering Conference, Egypt, 2004 D. Mishra, A. Yadav, S. Ray, P.K. Kalra.
878. Some aspects of the dynamical analysis of integrate and fire neuron model and synaptic interaction, National Conference on Recent Advances in Power, Signal Processing and Control, Rourkela, pp. 174-179, 2004, D. Mishra, A. Yadav, S. Ray, P. K. Kalra.

879. Propagation of action potential and concept of ephaptic interaction in axon, International Conference on Cognitive Science, Allahabad, pp 182 - 187, 2004, S. Ray, D. Mishra, A. Yadav, P.K. Kalra.
880. Fuzzy differential equation based neuron models and their numerical solutions using genetic algorithm, International Conference on Cognitive Science, Allahabad, pp 44 - 49, 2004, A. Yadav, D. Mishra, S. Ray, P. K. Kalra.
881. Analysis of CWDM grating, Photonics-2004-Seventh International Conference on Optoelectronics, Fiber Optics and Photonics, 9-11 Dec. 2004, Cochin India, R.K. Sonkar and Utpal Das.
882. A Comparative Study of Rotor Flux Estimation of an Induction Machine Employed in a Direct Vector Control Application using Linear and Nonlinear State Observers, Conf. Proceedings of National Conference of Recent Advances in Power, Signal Processing and Control (APSC-2004), NIT Rourkela, pp. 6-12, Nov. 2004, S. Auddy and S.P. Das.
883. Three-level Inverter-fed High Performance Induction Motor Drive System, Conf. Proceedings of National Conference of Recent Advances in Power, Signal Processing and Control (APSC-2004), NIT Rourkela, pp. 37-41, Nov. 2004, R.K. Behera and S.P. Das.
884. Current Controlled Inverter Under Saturation, Analysis and New Algorithms, with Milind Dighrasker, at the IASTED-ASM conference, held at Benalmadena, Spain, June 15-17, 2005, P Sensarma.
885. Behaviour of Surface Plasma based optical biosensors with incoherent light sources, Photonics 2004-Seventh International Conference on Optoelectronics, fiber Optics and Photonics, 9-11 Dec. 2004, cochin, India, A.K. Ghosh, V. Siddarth, M. Bhagat, S. Aggarwal and S. Srivastava.
886. The Role of Information and World view in Self-Assessment by Students. In Proceedings of the First International Conference on Teaching and Learning of Higher Education (TLHE2004, Centre for Development of Teaching and Learning, NUS, Singapore, December 1-3, 2004), pp. 376-381, 2004, Sharma, Narendra K.,.
887. Transmission Electron Microscopy Studies on Internally Oxidized Pd-Cr Alloys XXVIII Annual Meeting of the Electron Microscopy Society of India (EMSI), New Delhi, April 1-3, 2004 Gouthama, R. Balasubramaniam and T.B. Flanagan.
888. Study of Precipitation Characteristics of 6063 Aluminum Alloy using TEM, XXVIII Annual Meeting of the Electron Microscopy Society of

- India (EMSI), New Delhi, April 1-3, 2004, G.K. Mandal, Gouthama and R. Balasubramaniam.
889. Corrosion Issues in Railways, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Bijayani Panda and R. Balasubramaniam.
890. Corrosion Behavior of Phosphoric Irons for Concrete Reinforcement Applications, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Sahoo Gadadhar and R. Balasubramaniam
891. Characterization of Passive Films on Nanocrystalline Ni Coatings, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Naveen Gupta, Deepika Sachdeva, Rajiv Mishra and R. Balasubramaniam.
892. Corrosion Behaviour of SiC-Reinforced Mg Composites, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Shruti Tiwari and R. Balasubramaniam.
893. Corrosion Inhibition of Al Alloys by Rare Earth Chlorides, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Ajit Kumar Mishra and R. Balasubramaniam.
894. Development of Novel Brasses to Resist Dezincification, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, R. Karpagavalli and R. Balasubramaniam.
895. Galvanic Corrosion of Light Metal Couples for Automotive Applications
896. International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004 M. Surender. R. Balasubramaniam, Mridula Bharadwaj and Yar-Ming Wang.
897. Studies on Electrochemical Behaviour of Nanocrystalline Nickel (INVITED), International Conference on Design and Characterization of Advanced Materials (DCAM2004), Institute of Technology, Banaras Hindu University, December 10-11, 2004, R. Balasubramaniam, Rajiv Mishra, Naveen Gupta and Deepika Sachdeva.
898. Hydrogen Effects in Internally Oxidized Palladium-Chromium Alloys, International Conference on Solid State Hydrogen Storage - Materials And Applications, Hotel Taj Krishna, Hyderabad, 31 Jan – 01 Feb, 2005, D. Wang, Ted B. Flanagan and R. Balasubramaniam.

899. A Perspective on the Delhi Iron Pillar, Discussion Meeting on the Delhi Iron Pillar, Indian National Academy of Engineering, New Delhi, 11 March 2005, R. Balasubramaniam.
900. Delhi iron pillar, R. Balasubramaniam and P. Piccardo
901. Studies on Ancient Indian Phosphoric Iron, P. Piccardo, D. Maccio, P. Dillmann and R. Balasubramaniam
902. Delhi Iron Pillar: Ideas for Heat Treatments and Surface Coatings (PLENARY LECTURE), Proceedings of the International Conference on "Advances in Surface Treatment: Research and Applications (ASTRA)", Eds. T.S. Sudarshan, G. Sundararajan, G.E. Totten and S.V. Joshi, ASM International, Metals Park, USA, ASM ISBN 0-87170-814-0, 2004, pp. 24-31, R. Balasubramaniam.
903. Electrodeposited Ni-WC Composite Coatings, Proceedings of the International Conference on "Advances in Surface Treatment: Research and Applications (ASTRA)", Eds. T.S. Sudarshan, G. Sundararajan, G.E. Totten and S.V. Joshi, ASM International, Metals Park, USA, ASM ISBN 0-87170-814-0, 2004, pp. 130-134, M. Surender, B. Basu and R. Balasubramaniam.
904. Effect of Saccherine Addition on the Direct and Pulsed Electrodeposition of Nanocrystalline Nickel, Proceedings of the International Conference on "Advances in Surface Treatment: Research and Applications (ASTRA)", Eds. T.S. Sudarshan, G. Sundararajan, G.E. Totten and S.V. Joshi, ASM International, Metals Park, USA, ASM ISBN 0-87170-814-0, 2004, pp. 135-139, Rajiv Mishra and R. Balasubramaniam.
905. Some Studies on Electrodeposited Nanocrystalline Chromium Surface Coatings, Proceedings of the International Conference on Advances in Surface Treatment: Research and Applications (ASTRA), Eds. T.S. Sudarshan, G. Sundararajan, G.E. Totten and S.V. Joshi, ASM International, Metals Park, USA, ASM ISBN 0-87170-814-0, 2004, pp. 140-143, V. Jaju, S. Pal and R. Balasubramaniam.
906. Corrosion Behaviour of Ti-5%Ta-1.8%Nb Alloy in Nitric Acid Medium, Proceedings of the Conference on Materials and Technologies for Nuclear Fuel Cycle, (eds) Baldev Raj, K. Bhanu Sankara Rao and N. Murali, Dec 15-16, 2003, SERC, Chennai, pp. C7-C13, Ravi Shankar, R. Mythili, V.R. Raju, S. Saroja, R.K. Dayal, M. Vijayalakshmi, V.S. Raghunathan, R. Balasubramaniam and L.K. Singhal.
907. Corrosion Issues in Railways, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Bijayani Panda and R. Balasubramaniam.

908. Corrosion Behavior of Phosphoric Irons for Concrete Reinforcement Applications, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Sahoo Gadadhar and R. Balasubramaniam.
909. Characterization of Passive Films on Nanocrystalline Ni Coatings, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Naveen Gupta, Deepika Sachdeva, Rajiv Mishra and R. Balasubramaniam.
910. Corrosion Behaviour of SiC-Reinforced Mg Composites, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004. Shruti Tiwari and R. Balasubramaniam.
911. Corrosion Inhibition of Al Alloys by Rare Earth Chlorides, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, Ajit Kumar Mishra and R. Balasubramaniam
912. Development of Novel Brasses to Resist Dezincification, Proceedings of the International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004, R. Karpagavalli and R. Balasubramaniam.
913. Cyclic Voltammetry Study of Polysilanes for Determination of Electronic States, Proceedings of the International Symposium on Advanced Materials and Processing (ISAMAP2K4), Indian Institute of Technology, Kharagpur, December 6-8, 2004, S. Srinivas Prasad, A. Sharma, S. Shukla, M. Katiyar, D. Gupta, M. Surender and R. Balasubramaniam.
914. ZrO₂-TiB₂ composites, *Silicates Industriels* (1997), 185 -187 , ed A. Leriche, V. Lardot, D. Libert, I. Urban, Vleugels, S. Stemmer, B. Basu, O. Van Der Biest.
915. On controlling toughness of zirconia ceramics. Proc. 9th Cimtec World Ceramics Congress, Ceramics getting into the 2000's - Part B , 1999 , ed P. Vincenzini , Techna Srl , 827-834, B. Basu, J. Vleugels, D. Dierickx, O. Van Der Biest..
916. Electrodeposited Ni-WC Composite Coatings Proceedings of the International Conference on “Advances in Surface Treatment: Research and Applications (ASTRA)”, Eds. T.S. Sudarshan, G. Sundararajan, G.E. Totten and S.V. Joshi, ASM International, Metals Park, USA, ASM ISBN 0-87170-814-0, 2004, pp. 130-134, M. Surender, B. Basu and R. Balasubramaniam.

917. Boundary collocation estimates of stress intensity factor for edge cracks along the gradient in functionally graded materials, Proceedings of the International Congress on Computational Mechanics, ICCMS -04, 9- 12, December 2004, I.I.T Kanpur, India, 2004, Sharma, S. and Parameswaran, V.
918. Analytical and Numerical Evaluation of Stress fields for cracks along the gradient in functionally graded materials, Proceedings of .the International Conference on Theoretical, Applied, Computational and Experimental Mechanics, ICTACEM 2004, December 28-30, I.I.T Kharagpur, India, 2004, Parameswaran, V.
919. Beam hardening in X-ray CT, Proceedings of the National seminar on Non-destructive evaluation, organized by Indian Society of NDT in Thiruvananthapuram, pp. 183-188, December 2003. A longer version of the article was published in the Proceedings of the National Workshop on Applications of Computer aided Tomography, organized by DRDL, Hyderabad, September, 2004, K.K. Mishra, A.M. Quraishi, S. Mishra, Ashwani Kumar, A. Srivastava, K. Muralidhar and P. Munshi.
920. Structure of flow behind a prism of square cross section at various orientations: PIV experiments, presented at the 31st Fluid Mechanics and Fluid Power conference held at Jadavpur University in December 2004, S. Dutta, P.K. Panigrahi, and K. Muralidhar.
921. Analysis of magnetic abrasive finishing with slotted magnetic pole, Proceedings of the 8th International Conference on Numerical Methods in Industrial Forming Processes, June 2004 (NUMIFORM 2004), Columbus, Ohio, U.S.A pp. 1435- 1440, P.M. Dixit, S.C. Jayswal & V.K. Jain.
922. Finite element analysis of magnetic abrasive finishing process, Proceedings of AIMTDR, Vellore, 2004, pp. 590-595m V.K. Jain, G.B. Madhab and P.M. Dixit.
923. Abhijit Mahato and Sachin Singh Gautam, Study of high velocity impact problems, Proceedings of International Congress on Computational Mechanics and Simulation, Kanpur, 2004, pp, P.M. Dixit.
924. Ravindra Kumar Saxena and T .S. Sudhish Kumar, Dixit Simulation of square cup deep drawing, Proceedings of International Congress on Computational Mechanics and Simulation, Kanpur, 2004, pp, P.M. Dixit.
925. Hydrogen Supplemented Hydrocarbon Fuels: Combustion Characteristics and Performance, 4th International Symposium on Fuels and Lubricants, Oct 27-29, 2004, B.P Pundir and Praveen Pandey.

926. A Preliminary Design and Analysis of Annular Gas Turbine Combustor using Control volume Approach, Proceedings of NCABE, Airbreathing Engines & Aerospace Propulsion, IIT Kanpur, Nov. 5-7, 2004, Ramanand Singh, V. Shankar, Keshav Kant and B. P. Pundir.
927. Heavy Metal And Soot Addition In Lubricating Oil Of EGR Operated Diesel Engine, Presented and Published in the Proceedings of IASTA Meeting and International Conference on AEROSOLS, CLOUDS AND INDIAN MONSOON, November 15-17, 2004, IIT Kanpur, Shrawan Kumar Singh, Avinash Kumar Agarwal, Mukesh Sharma.
928. Diesel Exhaust Particulates Characterization for Heavy Metals, Presented and Published in the Proceedings of IASTA Meeting and International Conference on AEROSOLS, CLOUDS AND INDIAN MONSOON, November 15-17, 2004, IIT Kanpur K V L Bharathi, Dipankar Dwivedi, Avinash Kumar Agarwal, Mukesh Sharma..
929. Experimental Study of Linseed Oil as Alternative Fuel for Diesel Engine, Presented and Published in the Proceedings of National Conference on Biodiesel, held at CIAE, Bhopal, December 2004, Deepak Agarwal, Avinash Kumar Agarwal.
930. Transesterification of vegetable oils and Utilization as a Fuel for Diesel Engine, Presented and Published in the Proceedings of National Conference on Biodiesel, held at CIAE, Bhopal, December 2004, Shailendra Sinha, Avinash Kumar Agarwal.
931. Total 4 papers (including 1 keynote paper and three other technical papers published in conference proceedings) in international Conference, Closed and open loop pulsating Heat Pipes, 13th International Heat Pipe Conference, September 21-25, 2004, Sameer Khandekar.
932. Automatic Generation of Mold Halves for Rapid Prototyping, Conference on Advances in Materials and Manufacturing Technology, April 1 -2, 2004, Indian Institute of Technology Madras, Chennai, Pritam Chakraborty and Reddy, N. V..
933. Part Deposition Orientation Studies in Layered Manufacturing, Proceedings of 3rd International Conference on Advanced Manufacturing Technology, Malaysia, 2004, Pandey, P. M., Reddy, N. V., Dhande, S. G.
934. Build Strategies for Layered Manufacturing, Proceedings of 8th India-Japan Joint seminar on Advanced Manufacturing Systems, February 20-26, 2005, Indian Institute of Technology Kanpur, 139-144, 2005, Reddy, N. V.
935. Synthesis and characterization of nanopolystyrene: Effect of temperature, shear rate and solvents, Annual Technical Conference (ANTEC 2004),

- May 16-20, 2004 - Chicago, Illinois, USA Page # ANTEC/2500-2504, Kamal K. Kar, R. Kumar, P. Paik and J.U. Otaigbe.
936. Synthesis and characterization of nanopolymer: High density polyethylene, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2490-2494, Kamal K. Kar, P. Paik, J.U. Otaigbe.
937. Scanning electron microscopy, spectroscopy and viscoelastic studies of nano low density polyethylene, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2505-2509, Kamal K. Kar, P. Paik, A.S. Suresrao and J.U. Otaigbe.
938. Characterization of structure and viscoelastic properties of polypropylene nanopolymer, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2495-2499, Kamal K. Kar, P. Paik and J.U. Otaigbe.
939. Finite element analysis of hyperelastic materials: Elastomeric seal, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2277-2281, M. Rawat, Kamal K. Kar and J.U. Otaigbe.
940. Hysteresis loss of polymeric materials: Finding of new dimensionless parameters, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1994-1998, Kamal K. Kar, A.K. Bhowmick and J.U. Otaigb.
941. A Rheological model for quantitative prediction of die swell: effect of shear rate and temperature, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1059-1063, Kamal K. Kar, S.Gupta and J.U. Otaigbe.
942. Rheological Characterization of liquid crystal polymers (Xydar-300, Xydar-400 and Xydar-900) measured in ARES spectrometer, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/991-995, Kamal K. Kar and J.U. Otaigbe.
943. Development of rubber pressure moulding technique using polyester resin and natural rubber, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1430-1434, Kamal K. Kar, S.D. Sharma, P.Kumar, and J.U. Otaigbe.
944. Proposal of universal dimensionless parameters describing the heat generation of polymeric materials, The XIV international congress on Rheology 2004, August, 22-27,2004, Seoul, Korea, Page # AR08-1-AR08-3, Kamal K. Kar and A.K. Bhowmick.

945. The die swell of commercial polyethylene, polypropylene and polystyrene: Comparison of experimental behavior with Tanner, Macoscow and Proposed models, The XIV international congress on Rheology 2004, August 22-27,2004, Seoul, Korea Page # PM12-1-PM12-3, Kamal K. Kar and S. Gupta.
946. Nonlinear viscoelastic behavior/Rheology of xydar in the melt, The XIV international congress on Rheology 2004, August 22-27,2004, Seoul, Korea Page # NF42-1-NF42-3, Kamal K. Kar.
947. Microfabrication using Electrochemical Spark, Proc. of the 8th India-Japan Joint Seminar on Advanced Manufacturing System, Feb. 21-26, 2005, pp.21-30, Anjali V. Kulkarni and V. K. Jain.
948. Finite element analysis of magnetic abrasive finishing process, Proc. of 21st AIMTDR conference, Ed. P.Vivekananda Shanmugunathan, K.Raja, P.Kuppan, published by Narosa Publishing House Pvt. Ltd., New Delhi, India, pp. 590-595, G.B. Madhab, V.K. Jain, P.M. Dixit.
949. On the performance of Abrasive Flow Finishing Process, Proc. Precision Engineering, Ed: M.V.Suryaprakash et al, published by Narosa Publishing House, New Delhi, India, pp. 216-223, Sunil Jha, V.K.Jain, S.K.Choudhary.
950. Cutting forces and surface roughness during abrasive flow machining, Proceedings of Precision Engineering, Editor M. V.Suryaprakash et al, published by Narosa Publishing House, New Delhi, India, pp.298-305, V.K.Gorana, V.K.Jain, G.K.Lal.
951. Analysis of Magnetic Abrasive Finishing with slotted magnetic pole Processing of the 8th International Conference on Numerical Methods in Industrial Forming Processes held at Columbus, Ohio, 13-17 June 2004, S.C.Jayswal, V.K.Jain, P.M.Dixit.
952. Frequency Response of the Mechanochemically Synthesized AgI-Ag₂O-B₂O₃ Superionic glasses, Presented at the 6th Nat. Conf. on Solid State Ionics, 5-7 Oct. 2004, JadHAVpur University, Kolkata, Ankur Verma and K. Shahi.
953. Thermal Investigations on mechanically-milled and melt-quenched Superionic glasses using Diff. scanning calorimetry (Invited talk by A. Dalvi), , 6th Nat. Conf. on Solid State Ionics, 5-7 Oct. 2004, JadHAVpur University, Kolkata, A. Dalvi and K. Shahi.
954. Designing super-lenses with negative refractive index materials, in the Proceedings of the EPFL Latsis-2005 symposium, p. 27. (2005), S.A. Ramakrishna.

955. A miniature Hall sensor based ac-susceptometer for measurements of vortex and superfluid dynamics in superconducting films, *Rev. Sci. Instr.* 75, 141 (2004), K. Senapati, S. Chakrivarti, Lenna K. Sahoo and R.C. Budhani.
956. Simultaneous extraction of optical properties and intrinsic fluorescence from turbid media, *Proceedings of National Laser Symposium*, Jan. 2005, S. Gupta, V.L.N. Sridhar Raja and A. Pradhan.
957. Physics of intense microwave plasma ion sources for RI applications, *Proc. DAE-BRNS, Indian particle Accelerator Conference 2005*, p. 322-323, Variable Energy Cyclotron Center, Kolkata, March 1-5, 2005, S. Bhattacharjee.
958. Local spectroscopy of a ferromagnetic metal in contact with a superconductor at very low temperature, *Physica C* 404, 110 (2004) , L. Cretinon, Anjan K. Gupta, B. Pannetier, H. Courtois, H. Sellier and F. Lefloch.
959. STM spectroscopy of the local density of states in hybrid normal metal-superconductor bilayers, *Physica C* 404, 103 (2004) , L. Cretinon, Anjan K. Gupta, B. Pannetier and H. Courtois.
960. Shallow deep transitions of neutral and charged donor states in semiconductor quantum dots, *Phys. Rev. B* 70, 193308 (2004) , R.K. Pandey, M.K. Harbola and V.A. Singh.
961. Sample dependence of structural, vibrational and electronic properties of a-Si:H: A density functional based tight-binding study, *Phys. Rev. B* 70, 115213 (2004) , R. Singh, S. Prakash, N.N. Shukla, R. Prasad.
962. Energy functional dependence of exchange coupling and magnetic properties of Fe/Nb multilayers, *Phys. Rev. B* 70, 014420 (2004), N.N. Shukla and R. Prasad.
963. Symmetry breaking and structural distortion in charged XH_4 ($X = C, Si, Ge, Pb$) molecules, *Phys. Rev. A* 69, 033201 (2004), D. Balamurugan, M.K. Harbola and R. Prasad.
964. Unified micro- and macro- evolution of eco-systems: Self-organization of a dynamic network (Invited paper), *Physica A*, 336, 102 (2004), D. Stauffer and D. Chowdhury.
965. Computer simulations of history of life: speciation, emergence of complex species from simpler organisms, and extinctions, (Invited paper in the Per Bak memorial volume), *Physica A*, 340, 685 (2004), D. Chowdhury and D. Stauffer.
966. Self-organized patterns and traffic flow in colonies of organisms: from bacteria and social insects to vertebrates (Invited paper in a special issue

- on pattern formation), *Phase Transitions*, 77, 601 (2004), D. Chowdhury, K. Nishinari and A. Schadschneider.
967. Collective effects in traffic on bi-directional ant trails, *Journal of Theoretical Biology*, 231, 279 (2004), A. John, A. Schadschneider, D. Chowdhury and K. Nishinari.
968. Optically-modified channels of easy vortex motion in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ film;. Submitted to *Applied Physics Letters*, 2005, A. Jukna, I. Barboy, G. Jung, X. Li, D. Wang, Roman Sobolewski, S. S. Banerjee, Y. Myasoedov, E. Zeldov, A. Bartasyte and A. Abrutis.
969. Vortex nanoliquid in high temperature superconductors;, *Phys. Rev. Lett.* 93, 097002 (2004), S. S. Banerjee, S. Goldberg, A. Soibel, Y. Myasoedov, M. Rappaport, E. Zeldov, F. de la Cruz, C. J van der beek, M. Konczykowski, T. Tamegai, V. Vinokur.
970. Partial bi-directional coupling of chaotic diode lasers for secure optical communication, to appear in the *Proceedings of Semiconductor and Optoelectronics Conference (SIOE)* to be held at Cardiff, United Kingdom between March 21-23, 2005, S. Sivaprakasam, Min Won Lee, Jon Paul, P. S. Spencer and K. A. Shore.
971. Characterization of laser-produced aluminum plasma in ambient atmosphere of nitrogen using fast photography, *Appl. Phys. Lett.* 84, 4490 (2004) , A.K. Sharma and R.K. Thareja.
972. Synthesis and characterization of nanocrystalline functional films using pulsed laser deposition, *Workshop on Thin Film Deposition*, March 11-12, IRDE Dehradun, 2005, R.K. Thareja.
973. Deposition of nano-crystalline silicon and zinc oxide thin films by pulsed laser ablation, *Workshop on Thin Film Coatings*, March 11-12, IRDE Dehradun, 2005, V. Narayanan and R.K. Thareja .
974. Thin film deposition of nitrides and oxides during reactive pulsed laser ablation, *Workshop on Thin Film Coatings*, March 11-12, IRDE Dehradun, 2005, A.K. Sharma and R.K. Thareja .
975. Pulsed laser deposition of nanocrystalline Si thin films, *Workshop on Thin Film Coatings*, March 11-12, IRDE Dehradun, 2005, S.K. Tiwari and R.K. Thareja.
976. Reactive pulsed laser ablation: plasma studies, 2nd Int Conf on Frontiers of Plasma Physics and Technology, Feb. 21-25, Goa, 2005, R.K. Thareja and A.K. Sharma.
977. Optical diagnostics for functional thin film deposition, *XXX Optical Soc of India (OSI) Symp on Optics and Opto-Electronics (SOOP-05)*, Jan. 19-21, NPL New Delhi, 2005, R.K. Thareja .

978. Dynamics of formation of C₂ and CN bands in nitrogen ambient, NLO-04, Jan. 10-13, BARC, Mumbai, 2005, A.K. Sharma, D.S. Murthy, V. Narayanan and R.K. Thareja.
979. Formation of Si nano particles in Plasma: A signature, NLS-04, Jan. 101-3, BARC, Mumbai, 2005, S.K. Tiwari and R.K. Thareja.
980. Laser induced breakdown spectroscopic investigations of carious tissues, NLS-04, Jan. 10-13, BARC, Mumbai, 2005, A.K. Sharma, Shobha Shukla, V. Narayanan and R.K. Thareja.
981. LIBS as diagnostics of carious tooth, 7th Conf of the International Academy of Physical Sciences, Dec 21-23, Allahabad University, 2004, Shobha Shukla, A.K. Sharma and R. K. Thareja .
982. Plasma plume investigations for synthesis of nanocrystalline films and particles, 19th Nat. Symp on Plasma Sc and Tech, Dec 7-10 (PSSI-04), Bundelkhand University, Jhansi, 2004, R.K. Thareja .
983. Formation of AlN in laser ablated plasma of Al in nitrogen ambient, International Workshop on Nitride Semiconductors, Pittsburgh (USA) July 19-23, R.K. Thareja and A.K. Sharma (2004).
984. Characterization of laser ablated Al-plasma in ambient atmosphere of nitrogen (4B9), 31st IEEE ICOPS, Baltimore (Maryland), USA, June 28-July 1, 2004, R.K. Thareja and A.K. Sharma.
985. Mirrorless lasers, National Symposium on Engineering Optics, Meerut University, April 7-9, 2004, R.K. Thareja.
986. Ellipsometric investigations on the light induced effects on tris(hydroxyquinoline) aluminum (Alq₃), 2005, Satyendra Kumar, Vivek K. Shukla, Ashutosh Tripathi, Thin Solid Films, 477 240.
987. Correlation of hydrogen content with the microstructure of a-C:H films, 2005, T. Som, M. Malhotra, V.N. Kulkarni and Satyendra Kumar Physica B: Condensed Matter, 355, 72.
988. Transparent MgO films deposited on glass substrates by e-beam evaporation for AC plasma display panels, Proceedings Asia Display IMID-04, S.Kumar, S. Prem Kumar, K.R. Sarma and Satyendra Kumar.
989. Anodization time dependent photoluminescence intensity of porous silicon, Mat. Res. Soc. Symp. Proc. 797 (2004) w5.20.1, Md. N. Islam and Satyendra Kumar.
990. Stress on Porous Silicon Layers attached to Silicon Substrates, in Physics of Semiconductor Devices (IWPSD-2003) Eds K.N. Bhat and A. DasGupta, Narosa New Delhi, p 289-291 (2004), M.N. Islam and Satyendra Kumar.

991. Effect of Porosity on Photoluminescence Intensity from Porous Silicon Layers, in Physics of Semiconductor Devices (IWPSD-2003) Eds K.N. Bhat and A. DasGupta, Narosa New Delhi, p 950-952 (2004), M.N. Islam and Satyendra Kumar.
992. Symmetries of Discontinuous Flows and the Dual Rankine-Hugoniot Conditions in Fluid Dynamics, *Annals of Physics*, 316(1), 30-43, (2005) , O. Jahn, V. V. Sreedhar, Amitabh Virmani.
993. Anomalous change in electron density at nuclear sites in nanosize zinc ferrite, *Appl. Phys. Lett.* 85, 2074 (2004), C. Upadhyay and H.C. Verma.
994. Entanglement dynamics and quantum state transport in spin chains, *Phys. Rev. A* 69, 034304 (2004) , V. Subrahmanyam.
995. Quantum entanglement in Heisenberg antiferromagnet, *Phys. Rev. A* 69, 022311 (2004), V. Subrahmanyam.
996. Low temperature magnetization and magnetoresistance studies on the layered manganite system $\text{La}_{1.2}\text{Sr}_{1.8}\text{Mn}_{2-x}\text{Ru}_x\text{O}_7$ ($x=0,0.1,0.5,1.0$), *Solid State Commun.* 132, 635 (2004), Nori Sudhakar, K.P. Rajeev and A.K. Nigam.
997. Statistical Theory of Magnetohydrodynamics Turbulence: Recent Results, *Phys. Rep.*, 41, 229-380, 2004, M. K. Verma.
998. Large Eddy Simulations of Fluid and Magnetohydrodynamic Turbulence Using Renormalized Parameters, 63, 553, 2004, M. K. Verma and S. Kumar, *Pramana*.
999. Self-energy corrections in an antiferromagnet: interplay of classical and quantum effects on quasiparticle dispersion *Phys. Rev. B* 70, 115103 (2004), Pooja Srivastava and Avinash Singh.
1000. Summary of the Activities of the Working Group I on High Energy and Collider Physics, Proceedings of the 8th Workshop on High Energy Physics Phenomenology (WHEPP-8), Bombay 2004, *Pramana* 63, 1331 (2004), S. Raychaudhuri et al.
1001. Depolarization characteristics of sol-gel $\text{Pb}_{1.05}(\text{Zr}_{0.53}\text{Ti}_{0.47})\text{O}_3$ thin films V. Ramesh, Y. N.Mohapatra and D. C. Agrawal, *Ferroelectrics* 306 (2004) 71
1002. Depolarization Characteristics of Sol-Gel $\text{Pb}_{1.05}(\text{Zr}_{0.53}\text{Ti}_{0.47})\text{O}_3$ Thin Film. *Ferroelectrics*: 306:71-77 (2004), V.Ramesh, Y.N.Mohapatra, and D.C.Agarwal.
1003. Low Temperature Dielectric Properties of BST/ZrO₂ Multilayer Films, Proceedings of Materials Research Society, 784, C3.7.1 (2004),S.K. Sahoo, D.C. Agrawal, S.B. Majumder, R.S. Katiyar, and Y.N. Mohapatra.

1004. Synthesis and characterization of nanopolystyrene: Effect of temperature, shear rate and solvents Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA Page # ANTEC/2500-2504, Kamal K. Kar, R. Kumar, P.Paik and J.U. Otaigbe.
1005. Synthesis and characterization of nanopolymer:High density polyethylene, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2490-2494, Kamal K. Kar, P.Paik, J.U. Otaigbe.
1006. Scanning electron microscopy, spectroscopy and viscoelastic studies of nano low density polyethylene, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2505-2509, Kamal K. Kar, P.Paik, A.S. Suresrao and J.U. Otaigbe.
1007. Characterization of structure and viscoelastic properties of polypropylene nanopolymer, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2495-2499, Kamal K. Kar, P.Paik and J.U. Otaigbe.
1008. Finite element analysis of hyperelastic materials: Elastomeric seal, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/2277-2281, M. Rawat, Kamal K. Kar and J.U. Otaigbe.
1009. Hysteresis loss of polymeric materials: Finding of new dimensionless parameters, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1994-1998, Kamal K. Kar, A.K. Bhowmick and J.U. Otaigbe.
1010. A Rheological model for quantitative prediction of die swell: effect of shear rate and temperature, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1059-1063, Kamal K. Kar, S.Gupta and J.U. Otaigbe.
1011. Rheological Characterization of liquid crystal polymers (Xydar-300, Xydar-400 and Xydar-900) measured in ARES spectrometer, Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/991-995, Kamal K. Kar and J.U. Otaigbe.
1012. Development of rubber pressure moulding technique using polyester resin and natural rubber, Name of Conference: Annual Technical Conference (ANTEC 2004), May 16-20, 2004 - Chicago, Illinois, USA, Page # ANTEC 2004/1430-1434, Kamal K. Kar, S.D. Sharma, P.Kumar, and J.U. Otaigbe.

1014. Proposal of universal dimensionless parameters describing the heat generation of polymeric materials, The XIV international congress on Rheology 2004, August 22-27, 2004, Seoul, Korea, Page # AR08-1-AR08-3, Kamal K. Kar and A.K. Bhowmick
1015. The die swell of commercial polyethylene, polypropylene and polystyrene: Comparison of experimental behavior with Tanner, Macoscow and Proposed Models, The XIV international congress on Rheology 2004, August 22-27, 2004, Seoul, Korea, Page # PM12-1-PM12-3, Kamal K. Kar and S. Gupta
1016. Nonlinear viscoelastic behavior/Rheology of xydar in the melt, The XIV international congress on Rheology 2004, August, 22-27, 2004, Seoul, Korea, Page # NF42-1-NF42-3, Kamal K. Kar.

SEMINAR PRESENTED

1. Introduction to Virtual Instrumentation, Sanjay Gupta, Keynote Address: Workshop on Virtual Instrumentation, Anand Engineering College, Agra, 2005.
2. Virtual Instrumentation And LabVIEW: An Introduction. S Gupta. Keynote Address: Short Course on Virtual Instrumentation, MNNIT, Allahabad, 2005 (Organised by National Institute of Technical Teachers' Training and Research, Chandigarh).
3. Electrooptical Materials and Their Applications, K.V.Rao, Military College of Telecommunications Engineering, Mhow, March 2005
4. Mini-helicopter Design and Development, Invited talk, National Institute of Technology, Srinagar, India, June 2004. Venkatesan, C.
5. Helicopter Vibration and Its Control, Invited talk, Military College of Electrical and Mechanical Engineers, Secundrabad, India, July 2004. Venkatesan, C.
6. Invited paper: International Conference on Advances in Structural Integrity, IISc Bangalore, July 2004. Venkatesan, C.
7. Helicopter Dynamics and Stability, Annual Meeting of the Indian National Academy of Engineering, New Delhi, Dec. 2004. Venkatesan, C.
8. Organized a National Seminar on Combustion at IIT, Kanpur, D. P. Mishra.
9. Stability of Composite laminates Using a Simple Higher order Shear, Deformation Theory, Seminar, Aeronautics Design and Research center, HAL Bangalore, June 30,2004, N,G.R.Iyengar.
10. Stability of Composite laminates Using a Simple Higher order Shear Deformation Theory, Seminar, CEMILAC, Bangalore, July 6, 2004, N,G.R.Iyengar.
11. Re-entry Trajectory Modelling and Simulation, ISRO Satellite Centre, Bangalore, December 21, 2004, Ashish Tewari.
12. Re-entry Trajectory Modelling and Simulation, VSSC, Trivandrum, April 15, 2004, Ashish Tewari.
13. Honeywell, Bangalore Sullerey R.K.
14. High Performance Computing in Fluid Mechanics, Academic Summit, Microsoft Research, Bangalore, India, 2004, S. Mittal.
15. Instabilities in Bluff Body Flows in Tenth Asian Congress on Fluid Mechanics, University of Peradeniya, Srilanka, 2004, S. Mittal.
16. Instabilities in Bluff Body flows in International Workshops on Advances in Computational Mechanics, Tama Campus, Hosei University, Tokyo, Japan, 2004, S. Mittal.

17. Effect of elastic supports on the critical value of Reynolds Number past a cylinder, National Conference on Recent Advances in Mechanical Engineering – NCRAME-2004, Jabalpur Engineering College, 2004, S.Mittal.
18. Instabilities in Bluff Body Flows IUTAM Symposium for Laminar Turbulent Transition, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India, 2004, S.Mittal.
19. Application of a Mesh Moving Scheme to Ram-Air Parachute, International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, Prashant S Hadagali and S. Mittal.
20. Effect of blockage on vortex induced vibrations, International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, Suresh Behara, Prasanth T.K. and S. Mittal.
21. Vortex Induced Vibrations of a Spinning and Translating Cylinder, International Seminar on Technologies & Trends in Development of Para Recovery System (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, T.K. Prasanth and S. Mittal.
22. An Efficient Airfoil Configuration for Ram-Air Parachute Applications, International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, S. Mittal, R. Balaji and A.K. Rai.
23. Title –The Fat tumor suppressor represses Wnt signaling to regulate cell proliferation and cell adhesion. Medical Research Council, Cambridge, UK. 29th March 2005.
24. Delivered a talk titled “ATCUN-like metal-binding motifs in proteins: Crystal structure and sequence analysis” in Molecular Biophysics Unit, Indian Institute of Science, Bangalore in Feb. 2005, Prof. Pradip Sinha.
25. Contributing talk in the International Symposium on Aerosols, Clouds and Indian monsoon, IIT Kanpur, November, 2004, R. Bandyopadhyaya.
26. A series of 4 lectures in the short term course on Smart Materials: Opportunities and Future Challenges, NIT Allahabad, December 2004, R. Bandyopadhyaya.
27. A lecture in the Indo-US winter school on Futuristic Manufacturing, IIT Kanpur, December 2004, R. Bandyopadhyaya.
28. Contributing talk in the Indo-US joint Chemical Engineering Congress, Chemcon 2004, Bombay, December 2004, R. Bandyopadhyaya.

29. Invited talk in the Nanotechnology Symposium, IIT Bombay, March 2005, R. Bandyopadhyaya.
30. Designing supported metal oxide catalysts by understanding the effect of the kinetic-parameters: Propane ODH over unmodified and modified V_2O_5/TiO_2 catalysts, ACS meeting, Philadelphia, Aug-2004, Goutam Deo.
31. The effect of oxide support on the kinetic-parameters for ODH of propane over well-characterized MoO_3/TiO_2 and MoO_3/Al_2O_3 catalysts, Chemcon-2004, IIChe Annual Meeting, Mumbai, December 2004, T.V. Malleswara Rao and Goutam Deo.
32. The effect of vanadium oxide loading on the kinetic parameters for the ODH of propane over well-characterized V_2O_5/TiO_2 catalysts, Chemcon-2004, IIChe Annual Meeting, Mumbai, December 2004, Debaprasad Shee, Rudra Pratap Singh and Goutam Deo.
33. The effect of modifiers on supported V_2O_5/Al_2O_3 catalysts: ODH of Propane, Chemcon-2004, IIChe Annual Meeting, Mumbai, December 2004. Girish Joshi, Brishti Mitra, Israel E. Wachs and Goutam Deo.
34. Molecular drug design and array informatics using mathematical programming, Department of Chemical and Biomolecular Engineering, National University of Singapore, Singapore. June 4, 2004, S. Garg.
35. Peeling from a Smooth and a Patterned Layer of Elastic, Adhesive, NCL, Pune, 1st January, 2005, A. Ghatak.
36. Stability of Single Layer and Two Layer viscoelastic shear flows past a deformable solid layer, Complex Fluids Symposium, National Chemical Laboratory, Pune, January 1, 2005, V. Shankar.
37. National Chemical Laboratory (Pune), A. Sharma.
38. Lehigh University, USA, A. Sharma.
39. University of Vigo, Spain, A. Sharma.
40. DMSRDE (Kanpur), A. Sharma.
41. 3rd Singapore-India Collaborative and Cooperative Research Symposium, IIT Kanpur, December, 2004, Parimal K. Bharadwaj.
42. Transition Metal Based Smart Materials, Parimal K. Bharadwaj, MNIT, Allahabad, October, 2004.
43. Transition Metal Induced Signal Transduction in Cyclic as well as Acyclic Systems, Parimal K. Bharadwaj, Recent Advances in Chemistry at the Organic-Inorganic Interface, IIT Guwahati, December, 2004.
44. Highly Porous Metal-Organic Framework Structures, Parimal K. Bharadwaj, NCL, Pune, February, 2005.

45. Chemistry of Smart Materials, Parimal K. Bharadwaj, University of Goa, March, 2005.
46. Venue: Institute of Inorganic Chemistry, University of Wuerzburg, Wuerzburg, Germany, 2004, Rings, Cages and Polymers: Building Bridges Between Main-Group and Transition Metal Chemistry, V. Chandrasekhar.
47. Venue: Institute of Chemistry, Freie University, Berlin, Germany, 2004, Stannoxanes and phosphonates: New approaches in organometallic and transition metal assemblies, V. Chandrasekhar.
48. Venue: Department of Chemistry, University of Dortmund, Dortmund, Germany, 2004, Title of Seminar: Rings, Cages and Polymers: Building Bridges Between Main-Group and Transition Metal Chemistry, V. Chandrasekhar.
49. Venue: Institute of Inorganic Chemistry, University of Gottingen, Gottingen, Germany, 2004, Title of Seminar: Stannoxanes and Phosphonates, V. Chandrasekhar.
50. Venue: Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore, 2004, Title of Seminar: Stannoxanes and phosphonates: New approaches in organometallic and transition metal assemblies, V. Chandrasekhar.
51. Title: Hydrogen Bond Mediated Vibronic Mode Mixing and Electronic Energy Transfer in Carboxylic Acid Dimers. Organization: The University of Akron, Ohio, USA. Date: June 24, 2004, T. Chakraborty
52. Title: Photophysics of Aromatic Carboxylic Acid Dimers: Hydrogen Bond Mediated Vibronic Mode Mixing and Electronic Energy Transfer. Organization: Technical University of Munich. Date: July 7, 2004, T. Chakraborty
53. Title: Size Dependent Properties of Atomic and Molecular Clusters. Organization: National Institute of Technology, Allahabad. Date: November 29, 2004, T. Chakraborty
54. 3rd Singapore India Collaborative and Cooperative Chemistry symposium, 2004, IIT-Kanpur, Ghorai M.K.
55. Title: Stereoselective C-C Bond Formation Via Enolate: Memory of Chirality Concept for Chiral Induction, Ghorai M.K.
56. Ultrafast Pulse Shaping Approaches to Quantum Computing, Debabrata Goswami, INAE Conference on Nanotechnology (ICON-2003), Chandigarh, India, Dec. 22 – 23 (2003).
57. Laser Polarization Induced Control of Highly Nonlinear Process, Debabrata Goswami, International Workshop on Optimal Control of Quantum

- Dynamics: Theory & Experiment, Ringberg Castle, Max-Planck-Institut fuer Quantenoptik, Garching, Germany, Dec. 7 – 10 (2003).
58. Computing with Dancing Molecules, Debabrata Goswami, Singapore-India Symposium, IIT, Kanpur, December 16-17, 2004.
 59. Polarization Induced Control of Nonlinear Processes, D. Goswami, Condensed Matter Workshop (CMP 2005), Department of Physics, IIT, Kanpur, Feb. 5-6, 2005.
 60. Optical Approaches to Quantum Computing, Debabrata Goswami, Workshop on Quantum Information, Computation and Communication (QICC-2005), Centre for Theoretical Studies, IIT, Kharagpur, Feb. 15-18, 2005.
 61. High Tech Research: Applications to Low Cost, Debabrata Goswami, International Workshop ICT as a development enabler:-S&T Interventions, Department of Science and Technology, Govt. of India, TIFAC, New Delhi, February 21-22, 2005.
 62. Shaping an Ultrafast Laser Laboratory, Department of Nuclear and Atomic Physics Seminar, Tata Institute of Fundamental Research, Mumbai, India, Jan. 13, 2003. Debabrata Goswami.
 63. Quantum Computing with Ultrafast Pulse Shaping Approaches, Indian Institute of Technology, Kanpur, India, Feb. 21, 2003. Debabrata Goswami.
 64. Ultrafast Pulse for Quantum Logic, SERC School on Quantum Information and Quantum Optics, Physical Research Laboratories, Ahmedabad, India, Feb. 9, 2004. Debabrata Goswami.
 65. Seminar delivered, Ohio University, Organobridged dicobaloximes: Low temperature NMR study, May 21, 2004 Gupta B.D.
 66. Biodegradation of nitro toluenes- Center for fire, explosive and environmental safety, a DRDO lab in Delhi April 2004, Gurunath R.
 67. Bioremediation of toxic environmental contaminants- IITK-Nussymposium in Chemistry, IIT Kanpur- 18 December, 2004, Gurunath R.
 68. Advances in Biotechnology, Engineering College Raipur, Chhatisgarh. March 2004, Gurunath R.
 69. SInCCCS-3: Third Singapor-India Collaborative and Cooperative Chemistry Symposium at IIT Kanpur (December 16-17, 2004), F. A. Khan.
 70. Invited Lecture: A concise Synthesis of Novel Oxabridged Compounds, Lecture series on: π Facial selectivity and stereoelectronic effects (4 lectures) at NCL Pune on 28, 29 January 2005, F. A. Khan.
 71. Nano Structures and Display devices, Department of Physics and Chemistry, Lucknow University, Feb 2004, S Sundar Manoharan.

72. Microwave Approaches to Material Synthesis, at CEM Corporation North Carolina, USA Oct 2004, S Sundar Manoharan.
73. Chemical approaches to Nanomaterial synthesis at Karunya Deemed University, Tamil Nadu, Feb 2004, S Sundar Manoharan.
74. Devising molecules for Display devices, Christ College, Bangalore, January 2005, S Sundar Manoharan.
75. While light emission using organic semiconductors, Indo-Singapore conference at IIT Kanpur, December 2004, S Sundar Manoharan.
76. Nanotechnology: at Royal Institute of Technology at Bhutan, April 2004, S Sundar Manoharan.
77. Photochromism, Photocyclization and Tandem PhotoenolizationHetero DielsAlder Cycloaddition Reactions of o-Tolualdehydes in the Solid State, University of Hyderabad, Hyderabad, 23 September, 2004, Moorthy, J. N.
78. Photochemistry of o-tolualdehydes, University of Bangalore, Bangalore, 25 September, 2004, Moorthy, J. N.
79. Control of Organic Molecular Reactivity and Ordering in the Solid State, University of Siegen, Siegen, Germany, 22nd February, 2005, Moorthy, J. N.
80. Instrumental and Analytical Techniques in Chemistry, Department of Chemistry, University of Allahabad, Allahabad (December 17, 2004), Mukherjee R. N.
 - A. V. Rama Rao Foundation Prize Lecture in Chemistry (2005), Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore (proposed to be delivered on March 23, 2005), Mukherjee R. N.
81. Transition state, Department of Chemistry, Gorakhpur University, Gorakhpur, December 30, 2004, N. Sathyamurthy.
82. Medal lecture at CRSI meeting on February 6, 2004 at IIT Kanpur, Vinod K. Singh.
83. Invited talk in India-French Organic Seminar during October 6-7, 2004 at Gif-Sur-Yvette, France, Vinod K. Singh.
84. Invited lecture at a symposium CBISNF-2004 during November 21-26, 2004 in New Delhi, Vinod K. Singh.
85. Invited lecture at a symposium during March 6-7, 2005 at BHU, Varanasi, Vinod K. Singh.
86. Invites talk - Highly excited eigenstates and dynamics in CDBrCIF and CF₃CHFI - Discussion meeting on High resolution molecular spectroscopy, Mumbai, April 2004. Srihari K.

87. Invited talk - Energy flow in highly excited molecules: is statisticality only 'skin-deep'? - Department of Inorganic and Physical Chemistry, IISc, Bangalore, July 2004. Srihari K.
88. Invited talk - Resonance and chaos assisted tunneling in molecules: 'non-classical' routes to energy flow - Windberg workshop, Germany, September 2004. Srihari K.
89. Invited talk - Dynamical tunneling in molecules: spectral consequences of classical phase space structures - Max-Planck-Institut für Selbstorganisation und Stromungsforschung, Goettingen, December 2004, Srihari K.
90. Group talks at the Max-Planck-Institut für Physik komplexer Systeme, Dresden, Germany. Finite systems (Nov. 2004), Andreas Buchleitner's group (Nov. 2004), and Sergej Flach's group (Jan. 2005), Srihari K.
91. Aggregational studies with bioinspired synthetic peptide palindromes. Chemistry Biology Interface-Synergistic New Frontiers. November 22-27, 2004, New Delhi. Verma, S. *, Madhavaiah, C., Prasad, K.K., Purohit, C.S.
92. Protein assemblies and aggregates: Biological relevance and modeling studies. First National Frontiers of Science Symposium, December 10-11, 2004, New Delhi, Verma, S.
93. Synthetic peptide assemblies: Enforcing aggregation in bioinspired peptide scaffolds. First Indo-US Frontiers of Science Symposium, January 9-11, 2005, Bangalore, Verma, S.
94. Ordered peptide aggregation in synthetic conjugates derived from biologically relevant proteins. National Symposium on Organic Synthesis: New Dimensions, March 6-7, 2005, BHU, Varanasi, Verma, S.
95. 3rd Singapore-India Collaborative & Cooperative Chemistry Symposium, IIT, Kanpur, India, 2004, Invited Speaker, Veejendra K. Yadav.
96. Fakultät für Chemie, Universität Konstanz, Konstanz, Germany (September 2004), ETH, Zurich, Switzerland (September 2004), Yashwant D. Vankar.
97. Department of Organic Chemistry, I.I.Sc. Bangalore, 24th January 2005, Yashwant D. Vankar.
98. Department of Chemistry, University of Delhi, 3rd February, 2005, Prof. T.R. Seshadri Memorial Lecture, Yashwant D. Vankar.
99. The Tale of Rainwater Harvesting from Alwar, Rajasthan, Seminar on Water Conservation and Rainwater Harvesting, UP Chamber of Commerce, June 2004, Kanpur, Jain, A..
100. Wavelet-Based Stochastic Seismic Response of Structural Systems, Rice University, Houston, USA: July 30, 2004, Gupta, V.K.

101. Gupta, V.K., Design Spectrum-Based Scaling of Strength Reduction Factors
University of Toronto, Toronto, Canada: July 22, 2004
Ecole Polytechnique, Montreal, Canada: July 23, 2004
University of Southern California, Los Angeles, USA: July 26, 2004
University of California at San Diego, La Jolla, USA: July 27, 2004
Birla Institute of Technology and Science, Pilani: December 13, 2004
102. Influence of Fibre-Wrap Retrofitting on Gravity Designed RC Beam-Column Joints under Cyclic Loading, Proceedings of International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, Agra, India, 18-19 October 2004, pp Parallel Sessions 27-36, Bajpai, K.K., Murty, C.V.R., and Rai, D.C.,.
103. Title Earthquake Engineering at IIT Kanpur: Present and Future Directions Organzn. Indo-US Joint Network of Earthquake Engineering Simulation (NEES) Workshop Place IIT Bombay Dates Feb 3-5, 2005, Rai, D.C.
104. Title Battened built-up beam-columns under cyclic loads Organzn. EERI Chapter of University of Michigan Place Ann Arbor, MI, USA Dates July 23, 2004, Rai, D.C.
105. Digital Gang tic Plains (DGP): 802.11-based Low-Cost Networking for Rural India, Presentation at Wireless4Development, Djursland, Denmark, Sep 2004, Bhaskar Raman.
106. Universality for Nondeterministic Logs Space Indo-German Workshop On Algorithms, IISC Bangalore, October 2004, Somenath Biswas.
107. Mobile Computing Cutting Edge-2004 IIT Kanpur April 2004, R.K Ghosh.
108. Routing in Mobile Ad Hoc Networks, Workshop on Wireless Networks and Mobile Computing August 2004, R. K Ghosh.
109. The 2nd Annual IIT Kanpur Hackers' Workshop 2005 March, 2005, Deepak Gupta.
110. Machine Translation: Problems and techniques. ISI Calcutta, Jan 04, 2005.
111. Scaling Machine Learning Algorithms to Large Data Sets IBM India Research Lab. New Delhi, April 10, 2004, Pabitra Mitra.
112. Embedded Systems Technologies. Excitement of Research IIIT Hyderabad, March 5-6, 2005, Rajat Moona.
113. Software Performance Assessment Profiling and Performance, Improvements, Infosys. September 13-14, 2004, Rajat Moona.
114. Smart Cards Technology for Secure Management of Information Cutting Edge April, 2004, Rajat Moona.
115. The Landscape of Software Architecture, Wipro, Hyderabad, March 2005, T V Prabhakar.

116. Growth of Internet in India TRAI, New Delhi, October, 2004, Dheeraj Sanghi.
117. Rural Connectivity Using WiFi Networks Development Professionals Meet Pant Institute of Social Sciences Allahabad March, 2005, Dheeraj Sanghi.
118. A type system for polynomial time computation, Calcutta University Oct, 2004, Anil Seth.
119. Biometrics, Workshop on Computer Technology Trends Present and Future Centre for Development of Advanced Computing, Nodia, August, 2004, R.M.K Sinha.
120. Food, Family, Culture and Power Structure in Anita Desai's Fasting Feasting, The National Seminar on Familial Relations and Society in Contemporary Indian Writing in English, organized by the Department of English, DAV College, Kanpur, 17-18 March, T. Ravichandran.
121. Delivered a lecture on The Problems of Communication to the participants of Staff Development Coordination Workshop on Supervision and Managerial Effectiveness, IIT Kanpur, 12 March 2005, T. Ravichandran.
122. Delivered an invited lecture on 'Effects of Divorce on Children' in an awareness programme organized by the Police Department, Kanpur at Christ Church College Auditorium, Kanpur, on 28.11.04, Shikha Dixit.
123. Delivered an invited lecture on 'Managing Relationships and Communicating Effectively in Groups and Teams' in a Training Programme on General Management and Communication Skills conducted by The Institute of Chartered Accountants of India, Civil Lines, Kanpur, Jan. 24-9, 2005, Shikha Dixit.
124. Two Lectures on Policy of Disinvestment in India and Application of I-O Technique delivered to the participants of UGC workshop for college and university teachers, Organised by Narosa Public Administration Institute, Bhopal, December 17-18, 2004, K. K. Saxena.
125. Presentation of the Project Report on Rapid Evaluation of ISRHHD and SAY Schemes, Ministry of Rural Development, Department of Rural Development, Krishi Bhavan, New Delhi, 13 May 2004, A.K. Sharma.
126. Communication Skills: Communication Competence and Group Communication, Communicator Styles, and Listening Skills, M.P. Academy of Administration, Bhopal, Dec. 9, 2004, L. Krishnan.
127. Memory: Aspects of Short-term Memory, Department of Psychology, Government Nutan Girls' College, Indore, Dec. 21, 2004, L. Krishnan.
128. Prosocial Behaviour and Social Identity Theory, Advanced Social Psychology Refresher Course, Organized by Academic Staff College,

- Department of Psychology, Allahabad University, and University of Dundee, Scotland, U.K., March 8, 2005, L. Krishnan.
129. Distributive Justice: Trends in Research, Advanced Social Psychology Refresher Course, Academic Staff College, Department of Psychology, Allahabad University, and University of Dundee, Scotland, U.K., March 9, 2005, L. Krishnan.
 130. Environmental Impact Analysis of the Linking of Indian Rivers with reference to Orissa, Kalinga Institute of Technology, Bhubaneswar, Orissa, May 8, 2004, B. Rath.
 131. Chairman, Technical Session on Planning and Culture, 11th International Planning History Society (IPHS), Barcelona, Spain, July 14-17, 2004, B. Rath.
 132. Mainstreaming Environment and Development: The Indian Experiences, Copernicus Institute for Sustainable Development and Innovation, University of Utrecht, The Netherlands, July 24, 2004, B. Rath.
 133. Sustainability in the Development of Minor Irrigation Projects in India, Copernicus Institute for Sustainable Development and Innovation, University of Utrecht, The Netherlands, July 24, 2004, B. Rath.
 134. EIA of Indo-Dutch Collaboration Project at Kanpur under the Ganga Action Plan, Copernicus Institute for Sustainable Development and Innovation, University of Utrecht, The Netherlands, July 24, 2004, B. Rath.
 135. Chairman, Second Technical Session of the National Seminar on Issues in Human Development, GB Pant Social Science Institute, Allahabad, October 29-30, 2004, B. Rath.
 136. Chairman, Technical Session on Watershed Development Projects in India, 37th Annual Conference of Orissa Economic Association, Christ Church College, Cuttack, Orissa, February 20, 2005, B. Rath.
 137. Chairman, Technical Session on Rehabilitation & Resettlementt, National Workshop on Dams and Development, Institute of Development Studies Jaipur, March 2, 2005, B. Rath..
 138. Phototacti bioconvection in two dimensions, Math bio lunch meeting, University of Glasgow, UK, 1st June, 2004, Ghorai S.
 139. Ghorai, S, Simulations of bioconvection in three dimensions, Research Meeting on Motile Cells, Micro-Organisms & Fish Larvae, Universities of Glasgow and Strath-clyde's Centre for Mathematics Applied to the Life Sciences. 28th and 29th June, 2004, Ghorai S.
 140. Approximations by K-finite functions,at Harish-Chandra Research Institute, Allahabad during 21.03.05 to 24.03.05, Rawat R.

141. An Introduction to Wavelets University of Ranchi, Feb.6, 2005, Tewari, U.B.
142. Nonsmooth Optimization: A finite dimensional tour, June 2003, Halle, Germany, Dutta, J.
143. Regularity and Optimality in Vector Optimization, June 2003, Halle, Germany, Dutta, J.
144. Monotonic Analysis over Codes, July 2003, Alicante, Spain, Dutta, J.
145. Generalized derivatives in nonsmooth optimization, July 2003, Alicante Spain, Dutta, J.
146. Maximization of Convex and Lipschitz functions, June 2004, Frieberg, Germany, Dutta, J.
147. Harmonic analysis on noncompact rank one symmetric spaces, ISI Bangalore, NBHM Instructional School, 21st June – 9th July, 2004, Ray S.K.
148. Harmonic analysis on noncompact rank one symmetric spaces, ISI Bangalore, NBHM Instructional school, 21st June – 9th July, 2004, Ray S.K.
149. Role of linear and non-linear estimators in the consistent estimation of regression coefficient in ultrastructural model with replicated observations University of Dortmund, Dortmund, Germany in May, 2004, Shalabh.
150. Non-linear and linear estimators in ultrastructural model with replicated observations, Institute of Statistical Science, Academia Sinica, Taipei, Taiwan in June, 2004, Shalabh.
151. Risk and Pitman closeness properties of feasible generalized double k-class estimators in linear regression models with non-spherical disturbances under balanced loss function, Department of Statistics, National Cheng-chi University, Taipei, Taiwan in June 2004, Shalabh.
152. On the usefulness of knowledge of error variances in the consistent estimation of an unreplicated ultrastructural model, Department of Mathematics, National Kaohsiung Normal University, Kaohsiung, Taiwan in June, 2004, Shalabh.
153. Consistent Estimation of coefficients in measurement error models with replicated observations, Department of Applied Mathematics, National Sun Yat-sen University, Kaohsiung, Taiwan in 2004, Shalabh.
154. Wavelet Taylor Galerkin Method for Partial Differential Equations, Indo-French Workshop on Partial Differential Equations and Applications, at IISc(IMI) & TIFR Bangalore, Feb. 7-12, 2005, Rathish, B.V.K.

155. High Performance Computing & Cardio-Vascular Modelling, Symposium on Scientific Computing, Dec. 23-24, 2004, at SSIHL, Prasanthinilayam, Rathish, B.V.K.
156. Flow in Blood Vessels, Chandna Award Talk at SSIHL, Aug. 11, 2004, Prasanthinilayam, Rathish, B.V.K.
157. Heat Transfer and Fluid Mechanics Related to Turbulent Flows, Indian National Academy of Engineering (INAE) Annual General Meeting, December 11, 2004, Gautam Biswas.
158. Mechanical Characterization of Functionally Gradient Materials, Advanced Systems Laboratory, DRDO, Hyderabad, August 06, 2004, P.Venkitnarayanan.
159. M.N. Saha Memorial Lecture at Indian Association for Cultivation of Science, Dec. 13, 2004. From Natural Numbers to Numbers in Nature, A.K. Mallik.
160. Importance of Convection in the Growth of Optical Crystals, presented at the symposium entitled Topical meeting on Frontiers in Materials Science and Technology, on 30th December 2004 at Center of Advanced Technology, Indore, K. Muralidhar.
161. Heat Transfer enhancement and fluid flow transport phenomena behind surface mounted solid and permeable ribs, German Aerospace center, Goettingen, Germany, July 16th, 2004, P.K. Panigrahi.
162. Turbulent structures, flow control and optical techniques, Technical University of Braunschweig, 9th September, 2005, P.K. Panigrahi.
163. Applications of Various Optical Techniques for engines, 17th June, 2004, Photonics institute, Technical University of Vienna, Austria, Avinash Kumar Agarwal.
164. Engine Diagnostics, 22nd, June, 2004, Chemical Engineering Department, Technical University of Vienna, Austria, Avinash Kumar Agarwal.
165. Biodiesel Program in India, April 07th, 2005, Argonne National laboratory, Chicago, USA, Avinash .Kumar Agarwal.
166. At ISRO Bangalore on Thermal Management of Satellite, Sameer Khandekar.
167. Generative Manufacturing, Winter Programme on Micro-fabrication, IIT Kanpur, December 17-24, 2004, N. Venkata Reddy.
168. Build Strategies for Layered Manufacturing, CMERI, Durgapur, March 23, 2005, N. Venkata Reddy.
169. Thermophysical properties of polymers and nanomaterials, Defence Materials and Stores Research and Development Establishment (DMSRDE) India, 12th October, 2004, Kamal K. Kar..

170. High performance surface engineered carbon-carbon composite for high temperature application, Bhabha Atomic Research Centre, Mumbai, India, 27th October, 2004, Kamal K. Kar.
171. Synthesis and characterization of carbon nanotubes on the surface of pitch based continuous carbon fiber and their composites in polyester matrix for structural application, ISRO Satellite Centre (ISAC), Bangalore, India, 22nd December, 2004, Kamal K. Kar.
172. Role of Hysteresis Loss on Heat Generation of Thermoplastic Elastomers and its Modeling for Pneumatic Tyres of High Performance Vehicles, Sardar Vallabhbhai National Institute of Technology, Gujrat, India, 1st February, 2005, Kamal K. Kar.
173. Resistivity minima in bulk disordered alloys, Low-temperature Physics Laboratory of Helsinki University of Technology, Helsinki, Finland, May 24, 2004, A.K. Majumdar.
174. Magnetic scattering, Hall effect, and magnetization in Fe-Cr GMR multilayers, Forschungszentrum Karlsruhe, Institut fur Nanotechnologies, Karlsruhe, Germany, June 8, 2004, A.K. Majumdar.
175. Perfect lenses with negative refraction: a celebration of evanescence, Raman Research Institute, Bangalore, May 2004, S.A. Ramakrishna.
176. Super-lenses with sub-wavelength resolution using optical anti-matter, Colloquium at the Physics Deptt, IIT Kanpur, Jan 14, 2005, S.A. Ramakrishna.
177. Vortex dynamics in two-dimensional superconductors, Brookhaven National Laboratory, USA, May 2004, R.C. Budhani.
178. Interlayer exchange coupling in ferromagnet-superconductor-ferromagnet heterostructures, Institut d'Electronique Fundamentale, Orsay, France, R.C. Budhani.
179. Discovery of Aymptotic Freedom: Nobel prize in 2004, IIT Kanpur, Nov. 11, 2004, S.D. Joglekar.
180. High density plasma generation using microwave: new frontiers and applications, EE Dept, IIT Kanpur, Oct. 30-31, 2004, S. Bhattacharjee.
181. Physics of intense microwave plasma ion sources for RI applications, DAE-BRNS, Indian Particle Accelerator Conference, Variable Energy Cyclotron Center, Kolkata, March 1-5, 2005, S. Bhattacharjee.
182. Physics of intense electromagnetic wave plasma ion sources for multicharged ions: from high frequency to high power sources, Nuclear Science Center, New Delhi, March 28, 2005, S. Bhattacharjee.
183. STM/S Imaging Studies in the Vortex State, tutorial given at IVW10 School in TIFR, Mumbai, January 2005, Anjan K. Gupta.

184. Tunneling into Superconducting (proximity) Structures, Talk at SERC School in Strongly Correlated Electrons at HRI, Allahabad, Nov. 2004, Anjan K. Gupta.
185. Supersymmetry and the Lorentz Fine Tuning Problem, IIT Kanpur, 16 Feb. 2005, Pankaj Jain.
186. Is there a preferred direction in the universe, IUCAA, Pune, 22 Dec 2004, Pankaj Jain.
187. Is there a preferred direction in the universe, IISc, Bangalore, 15 October 2004, Pankaj Jain.
188. Pseudoscalar-Photon Mixing, IMSC, Chennai, 12 Oct. 2004, Pankaj Jain.
189. Is there a preferred direction in the universe, IIT Chennai, 11 Oct. 2004, Pankaj Jain.
190. Is there a preferred direction in the universe, HRI, May 2004, Pankaj Jain.
191. Jahn-Teller effect in clusters and lithiated manganese oxides, IIT Roorkee, April 2, 2004, R. Prasad.
192. Jahn-Teller effect in clusters and manganese oxides, Northeastern University, Boston, Nov. 10, 2004, R. Prasad.
193. Patterns and traffic of life, University of Cologne, Germany, June 2004, D. Chowdhury.
194. Time domain spectroscopic study of PL decay in Zinc Benzothiazole suitable for White light emitting OLEDs, Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore on 6 January, 2005 in In Optical Probes 2005, Y.N. Mohapatra.
195. Yb-based Heavy Fermion Systems Close to Quantum Critical Point, CMP Workshop 2005, IIT Kanpur, February 6, 2005, Z. Hossain.
196. Recent Developments in Organic Semiconductors for Displays and Lighting Applications, Invited talk at 49th DAE Solid State Physics Symposium, Amritsar, Dec 26-30, 2004, Satyendra Kumar.
197. Organic Solar Cells, Solar Cells Group, ETH Zurich, Feb 21, 2005, Satyendra Kumar.
198. Seminar cum workshop on Materials Characterization and Surface Modification in Research and Industry using Ion Accelerators. , CCCM, BARC, Hyderabad, Feb 9-11, 2005. Title: Ion beams in nano science and engineering (Invited Talk), V.N. Kulkarni.
199. Quantum entanglement in spin system, CMP-2005, IIT Kanpur, February 2005, V. Subrahmanyam.
200. Colloquium entitled String Theory and Time Machines at Inst. of Mathematical Sciences, Chennai June 2004, G. Sengupta.

201. Seminar Review of the Holographic Principle at Inst. of Mathematical Sciences, Chennai, June 2004, G. Sengupta.

CONFERENCES ATTENDED OUTSIDE IIT KANPUR

1. International Conference on Advances in Structural Integrity, July 2004, IISc Bangalore, Venkatesan, C.
2. 12-th AIAA/ASME/AHS Adaptive Structures Conference, Palm Springs, California, USA, April 2004, Venkatesan, C.
3. 2004 ASME Heat Transfer/Fluids Engineering Conference, July 11-15, Charlotte, North Carolina, USA, 2004, D. P. Mishra.
4. International Symposium on Recent Advances in Aeroacoustics and Active Flow-Combustion Control. In Honour of Professor John E. Ffowes Williams. Jan 4-6, 2005, Goa India, Debopam Das.
5. 18th National Convention of Aerospace Engineers, Nov. 17-19, 2004, IIT Kharagpur, Invited speaker, Chairing a session, N.G.R.Iyengar.
6. International Conf. Theoretical, Applied, Computational and Experimental mechanics, Dec. 28-30, 2004 IIT Kharagpur, Keynote Speaker, Chairman of session, N.G.R.Iyengar.
7. High Performance Computing, Jan. 28-29, 2004, Cornell Theory Center, Cornell, USA, S. Mittal.
8. High Performance Computing in Fluid Mechanics, Academic Summit, Microsoft Research, Bangalore, India, 2004, S. Mittal.
9. Tenth Asian Congress on Fluid Mechanics, University of Peradeniya, Sri Lanka, 2004, S. Mittal.
10. International Workshops on Advances in Computational Mechanics, Tama Campus, Hosei University, Tokyo, Japan 2004, S. Mittal.
11. National Conference on Recent Advances in Mechanical Engineering- NCRAME-2004, Jabalpur Engineering College, 2004, S. Mittal.
12. National Frontiers of Science Workshop, held at INSA, Delhi, December 2004, S. Mittal.
13. First Indo-US Frontiers of Science Workshop (FOS), IISc Bangalore, January 2005, S. Mittal.
14. IUTAM Symposium for Laminar-Turbulent Transition, Jawharalal Nehru Center for Advanced Scientific Research, Bangalore, India, 2004, S. Mittal.
15. International Seminar on Technologies & Trends in Development of Para Recovery Systems (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, S. Mittal.
16. National Conference on Control and Dynamics, IIT, Bombay, Jan'2005, presented an invited paper, A.K. Ghosh
17. Conference on Technologies and Trends in Development of Para Recovery Systems, ADRDE Agra, 15-17 March, 2005, A.K. Ghosh.

18. International Conference on, Development of knowledge infrastructure role of consultants, India habitat center, New Delhi, Oct-2004, A.K. Ghosh.
19. Regulation of organ growth by the tumor suppressor genes of *Drosophila*: negative regulation of Wnt signaling by the Fat tumor suppressor, EMBO International workshop on Cell Interactions in Development and Disease at Centre for Cellular and Molecular Biology, Hyderabad. 16-18 December 2004, Pradip Sinha.
20. Organ size regulation in *Drosophila*: The Fat tumor suppressor represses Wnt signaling to regulate cell proliferation and cell adhesion, 46th Annual *Drosophila* Research Conference, Town & Country Resort & Convention Centre, San Diego, California, USA. 30th March to 3rd April'2005, Pradip Sinha.
21. A genetic screen to identify the targets of puf-8, a Puf family gene involved in the meiotic progression of *C. elegans* spermatocytes. 64th annual meeting of the Society for the Developmental Biologists, 2005, K. Subramaniam and Mohd Ariz.
22. Maternal RNA-binding proteins direct the primordial germ cell-specific translation of the germ cell regulator nos-2 in *Caenorhabditis elegans*. Invited presentation at the Cold Spring Harbor Laboratory meeting on Germ Cells, 2004, Nishi Maithil, Shreyas Jadhav, Adrian Cuenca, Geraldine Seydoux and K. Subramaniam.
23. Maternal RNA-binding proteins control the translation of the *C. elegans* germ cell regulator, nos-2, Invited presentation, Indo-EMBO Symposium on Cell interactions in disease and development, Centre for Cellular and Molecular Biology, Hyderabad, 2004, Shreyas Jadhav, Mainpal Rana and K. Subramaniam.
24. Implications of *C. elegans* genomics for plant parasitic nematodes, Invited presentation, Indo-Israel Symposium on Nematology,, Indian Agricultural Research Institute, New Delhi, 2004, K. Subramaniam.
25. Title of talk: Development of Nano-Biomaterials for Tissue Engineering Applications, Indo-Australian Conference on Biomaterials, Implantable Devices and Tissue Engineering (BITE 2005) at Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram, India. Dates: January 19th to 21st 2005, Dharendra Katti.
26. Invited lecture: New Polymeric Materials for Protein and Cell Separations, 2005, Ashok Kumar.
27. BIOHORIZON2005- The 7th National Symposium on Biochemical Engineering and Biotechnology, March 11 – 12, 2005, IIT Delhi

- Chairperson: Technical Review Session -Downstream Processing, Ashok Kumar.
28. Session chair in Nanotechnology session of Indo-US joint Chemical Engg. Congress, Chemcon 2004, Bombay, December 2004, R. Bandyopadhyaya.
 29. Membrane Processes based Effluent Treatment - Some Case Studies, P. K. Bhattacharya, IChE-AIChE meeting during CHEMCON-2004 on Chemical Engineering in a global Environment, December 27-30, 2004 in Mumbai (in absentia), P.K. Bhattacharya.
 30. Overview of Membrane Technology for Effluent Treatment, Indo - French Seminar on Emerging Technologies for water and waste water management, 9 -12 February, 2004 at India Habitat Centre, New Delhi, P. K. Bhattacharya.
 31. Attended Gordon Research Conference on Catalysis, New London, New Hampshire, USA, G. Deo.
 32. Conference on Complex Fluids, National Chemical Laboratory, Pune, January, 1, 2005, A. Ghatak.
 33. Bhopal and the Global Movement on Process Safety', Keynote paper, Hazard XVIII, Institution of Chemical Engineers (U.K.), Manchester, November 23 – 25, 2004. Proceedings page 15 – 27, J.P. Gupta.
 34. Site Security of Process Industry including a Case Study', International Conference 'Bhopal Gas Tragedy and its Effects on Process Safety', Kanpur, December 1 – 3, 2004, Abstract Volume page 57. Full paper on CD, S. Bajpai and J.P. Gupta.
 35. Mitigating consequences of Hazardous Gaseous Releases by Air Dilution – A Concept', International Conference 'Bhopal Gas Tragedy and its Effects on Process Safety', Kanpur, December 1 – 3, 2004, Abstract Volume pages 143-144. Full Paper on CD, J.P. Gupta.
 36. Securing Oil and Gas Infrastructure', Kuwait Oil and Gas Conference and Exhibition, Kuwait City, March 7 – 9, 2005, S. Bajpai and J.P. Gupta.
 37. Hazard XVIII, Institution of Chemical engineers (U.K.), Manchester, UK, November 23 –25, 2004, Keynote paper, J.P. Gupta.
 38. Annual Conference of the Indian Institute of Chemical Engineers, Mumbai, December 27-30, 2004, J.P. Gupta.
 39. Kuwait Oil and Gas Conference and Exhibition, Kuwait City, Kuwait, March 7 – 9, 2005, presenting a contributed paper, J.P. Gupta.
 40. Nonlinear dynamics of confined polymer melt with attractive walls, Complex fluids Symposium, National Chemical Laboratory, Pune, January 1, 2005, Joshi Y. M.

41. Control structure synthesis using steady state analysis, 2004 Annual AIChE Conference in Austin, TX, N. Kaistha, M.V. Pavan Kumar, Ram Singh and B.P. Singh.
42. Steady state simulation of reactive distillation columns using the Naphtali-sand hole method, CHEMCON 2004, Mumbai, (Won best session paper award), N. Kaistha, M.V. Pavan Kumar, Ram Singh and B.P. Singh.
43. Steady state sensitivity analysis for reactive distillation column control structure synthesis, CHEMCON 2004, Mumbai, N. Kaistha and M.V. Pavan Kumar.
44. An SPC framework for the characterization of batch profile, 2004 Annual Meeting of the American Statistical Association, Boulder Co. (Invited Lecture), N. Kaistha, CF Moore and M.G. Leitnaker.
45. 18th Canadian Symposium on Catalysis, Montreal, May 2004, D. Kunzru.
46. National Symposium on Engineering Education, Bangalore, Feb.2005-invited paper, D. Kunzru.
47. Innovations for Intensifications in the process Industry International Conference on the 20th Anniversay of the Bhopal Tragedy, IIT Kanpur, India Decemember 1-3, 2004, S. V. Sivakumar, N. Kaistha, D. P. Rao.
48. A simple method for multicomponent distillation design calculations, Paper NO. 403 o. AIChE Annual metting, Austin, Dec. 2004, D.P.Rao, Amit Kumar, Ashok Kumar, Devendra Agarwal, Abhishek Sinha.
49. Process Intensification in a 'simulated Moving-bed' Heat regenerator', Paper #: HT-FED2004-5629, Proc. 2004 ASME Heat Transfer Engineering Summer Conference: July 11-15, 2004 North Carolina, USA, D. S. Murthy, S. V. Sivakumar, Keshav Kant, D. P. Rao.
50. Invited to be a Panelist for Panel Discussion on Process Intensification at AIChE Spring meeting 2004, 25-29 April, New Orleans, LA, USA, D. P. Rao.
51. A novel simulated movong-bed adsorber for the fractionation of gas mixtures, 17th International symposium, Exhibit & Workshops on Preparative. Chromotohraphy, Baltimore, 23-26 May, 2004, Baltimore, Maryland, USA, D. P. Rao, S. V. Sivakumar and Susmita Mandal & B. S. G. Ramaprasad.
52. Process Intensification in Fixed beds using Moving-Port Systems, AIChE Spring meeting 2004, 25-29 April, New Orleans, LA, USA, D. P. Rao, S. V. Sivakumar and J Chakravarti, & B. S. G. Ramaprasad.
53. A novel rotor design for intensification of gas-phase mass transfer in a Hige, AIChE Spring meeting 2004, 25-29 April, New Orleans, LA, USA, D. P. Rao, P. Goswami, A. Bhowal.

54. Duplex PSA cycles for the enrichment of and fractionation of gas mixtures in fixed beds, CHECON 2004, S.V. Sivakumar, K. Sridevi, D. P. Rao.
55. A novel rotor design for intensification of gas-pagse mass transfer in a HIGEE, CHECON 2004, A.P.S. Chandra. P.S. Goswami and D.P. Rao.
56. Duplex PSA cycles for the enrichment of and fractionation of gas mixtures in fixed beds, CHECON 2004, C.P. Mittal, S.V. Sivakumar D.P. Rao.
57. In-Flight liquid oxygen collection systems for air-breathing hypersonic vehicle, 7th National Conference on Airbreathing Engines and Aerospace Propulsion, NCABE-2004, to be held at IIT Kanpur, November 5-7, 2004. Proceedings of NCABE 2004, ed. Raghunandan BN, Oommen Ch. Sullery RK. Page 289-301, D. P. Rao, A. Bhowl, S. Pandey, R. Gopalswami, Satish Kumar, P. Manna, and S.S. Panwar.
58. Complex Fluids Symposium, National Chemical Laboratory, Pune. January 1, 2005, V. Shankar.
59. Self-organization in soft nanosystems, 91st Indian Science Congress, Chandigarh, 2004, A. Sharma.
60. Patterns, forces and metastable pathways in debonding of elastic films, 27th Adhesion Society meeting, Wilmington, North Carolina from February 15-18, 2004, A. Sharma.
61. Self-organized Meso-Scale Patterning of Soft Materials, Indo-US Workshop on Futuristic Manufacturing, IIT Kanpur, 2004; also a co-coordinator of the workshop, A. Sharma.
62. Self-organized patterns in thin soft films, Indo-US Workshop on Nanoscale Materials, Puri, April 2004, A. Sharma.
63. Adhesion and debonding of elastic films: patterns, forces and metastability, STATPHYS-22 Satellite: Pattern Formation in Nonequilibrium Systems, Kolkata, July 11-13, 2004, A. Sharma.
64. Adhesion failure induced by interfacial instabilities in ultra-thin soft films, Gordon Research Conference on Science of Adhesion, Tilton, NH, August 8-13, 2004, A. Sharma.
65. Adhesion, dewetting and debonding of soft elastic films: Patterns, forces and metastability, Workshop on Pattern formation through instabilities in thin liquid films: from fundamental aspects to applications, Max-Planck Institute for the Physics of Complex Systems, Dresden (Germany), September 21-28, 2004. Also chairman of a session in this symposium, A. Sharma.
66. Catalytic oxidation of toluene by metal impregnated activated carbon fibers (ACF), Chemcon proceedings-2004, Mumbai, India, Dec 27-30, 2004, V. Gaur, A. Sharma, and N. Verma.

67. Control of NO_x emissions by activated carbon fibers, Indo-US conference proceedings-2004, Mumbai, India, Dec. 29-30, 2004, S. Adapa, V. Gaur and N. Verma.
68. Computation Fluid Dynamics Study of flow past a circular cylinder confined in a plane channel: vortex shedding phenomena, Indo-US conference proceedings-2004, Mumbai, India, Dec. 29-30, 2004, S. Mettu, R.P. Chhabra and N. Verma.
69. Catalytic oxidation of toluene by metal impregnated activated carbon fibers (ACF), Chemcon proceedings-2004, Mumbai, India, Dec 27-30, 2004, V. Gaur, A. Sharma, and N. Verma.
70. Control of NO_x emissions by activated carbon fibers, Indo-US conference proceedings-2004, Mumbai, India, Dec. 29-30, 2004, S. Adapa, V. Gaur and N. Verma.
71. Computation Fluid Dynamics Study of flow past a circular cylinder confined in a plane channel: vortex shedding phenomena, Indo-US conference proceedings-2004, Mumbai, India, Dec. 29-30, 2004, Srinivas Mettu, R.P. Chhabra and N. Verma.
72. Transition Metal Based Smart Materials, MNIT, Allahabad, October, 2004, Parimal K. Bharadwaj.
73. Transition Metal Induced Signal Transduction in Cyclic as well as Acyclic Systems, Parimal K. Bharadwaj, Recent Advances in Chemistry at the Organic-Inorganic Interface, IIT Guwahati, December, 2004.
74. Highly Porous Metal-Organic Framework Structures, Parimal K. Bharadwaj, NCL, Pune, February, 2005.
75. Chemistry of Smart Materials, Parimal K. Bharadwaj, University of Goa, March, 2005.
Invited lecture at the 11th International Conference on the Coordination and Organometallic Chemistry of Germanium, Tin and lead (ICCOG-GTL-11), Santa Fe, New Mexico, USA, 27th June-2 July 2004, Date of talk: 28th June 2004, Title of talk: Organostannoxane based cages and supramolecules, V. Chandrasekhar.
76. Invited Session Lecture in 36th International Conference on Coordination Compounds, Merida-Yucatan, Mexico, July 18-23, 2004, Date of talk: July 22nd 2004, Title of Talk: Organostannoxane based cages and supramolecules, V. Chandrasekhar.
77. Bhatnagar Laureates (2003) Symposium, NPL, New Delhi September 13 2004, Title of talk: Stannoxanes and phosphonates: New approaches in organometallic and transition metal assemblies, V. Chandrasekhar.

78. 59th International Symposium on Molecular Spectroscopy, Ohio State University at Columbus, Ohio, USA. Date: June 23, 2004. Title of the paper presented: Hydrogen-bond mediate vibronic mode mixing and electronic energy transfer. T. Chakraborty
79. National Conference on Laser Applications in Basic and Applied Sciences, Shantiniketan, Viswabharati University, Date: January 10, 2005. Title of the invited talk delivered: Structural mutation and energy redistribution in model DNA base-pairs: Probing by laser-induced fluorescence spectroscopy. T. Chakraborty.
80. First Asia-Pacific Conference on Theoretical and Computational Chemistry, Okazaki, Japan, May 12-15, 2004, Invited speaker, Amalendu Chandra.
81. NANO-2004: 7th International Conference on Nanostructured Materials, Wiessbaden, Germany, June 21-24 2004. Oral and Poster Presentations. N. S. Gajbhiye
82. SCM-2004: Second Seeheim Conference on Magnetism, Seeheim, Germany, June 27- July 01, 2004. Session Chairman, Invited Talk, and Poster presentations N. S. Gajbhiye
83. SSP-2004: 8-th International Conference on SOLID STATE PHYSICS, Almaty, Kasakhstan, August 23 – 26, 2004, Session Chairman & Plenary Lecture on Magnetic Properties of Co and Ni Doped ϵ -Fe₃N Nanoparticles. N. S. Gajbhiye
84. National Seminar on Applied Research on Solid State Chemistry and Nanotechnology (NSASN – 2005), Department of Chemistry, Annamalai University, India, February 25 – 26, 2005, Keynote address on The Fascinating World of Materials and the Role of Solid State Chemistry. N. S. Gajbhiye
85. National Symposium on Advances in Material Science, Department of Physics, D. D. U. Gorakhpur, March 17 – 19, 2005, Poster Presentations. N. S. Gajbhiye
86. ACS meeting, Indianopolis, Indiana, USA June 2-4, 2004, Gave a talk titled Organobridged dicobaloximes: Synthesis and NMR study Gupta B.D.
87. New Synthetic Strategies for Tetrahydroisoquinoline, Indolo-fused and other Biologically Important Small Molecule Heterocycles, ICOB-4 & ISCNP-24: IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications, University of Delhi, New Delhi, January 26–31, 2004, H. Ila.

88. 2nd International Symposium on Current Trends in Drug Discovery Research, CTDDR-2004, February 17-20, 2004, Central Drug Research Institute, Lucknow, Chairperson of a session, H. Ila.
89. 6th Chemical Research Society of India National Symposium (CRSI), February 6-8, 2004, IIT Kanpur, Kanpur, H. Ila.
90. Polarized Ketene S,S-, N,S- and N,N-Acetals: Versatile Building Blocks for Heterocycle Synthesis, Institute fur Organische Chemie Technical University, Dresden, Germany, 24th/ 25th June 2004, H. Ila.
91. Polarized Ketene Dithioacetals: Versatile Synthons for Regioselective Synthesis of Substituted Benzimidazoles and Pyrazoles, 21st International Symposium on the Organic Chemistry of Sulfur (ISOCS-XXI), Madrid, Spain, July 4-9, 2004, H. Ila.
92. Delivered a Invited Lecture during International Symposium held at Central Drug Research Institute, Lucknow, August, 2004, H. Ila.
93. From Synthons to Bioactive Molecules: Efficient Strategies for Heterocycle synthesis, National Chemical Laboratories, Pune, 26th September, 2004, H. Ila.
94. Polarized Ketene S,S-, N,S- and N,N-Acetals: Versatile Building Blocks for Heterocycle Synthesis, Chemistry Biology Interface: Synergistic New Frontiers, November 21-26, 2004, Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, New Delhi, November, 2004, H. Ila.
95. Polarized Ketene S,S-, N,S- and N,N-Acetals: Versatile Building Blocks for Heterocycle Synthesis, National Symposium on Chemistry at the Inorganic and Organic Interphase, Indian Institute of Technology, Guwahati, 6-7th December, 2004, H. Ila.
96. Polarized Ketene S,S-, N,S- and N,N-Acetals: Versatile Building Blocks for Heterocycle Synthesis, University of Pondichery, December, 2004, H. Ila.
97. From Synthons to Bioactive Molecules: Efficient Strategies for Heterocycle Synthesis, XVIII National Symposium, Punjab University, Chandigarh, February, 2005, H. Ila.
98. CBISNF-04 (International Conference on 'Chemistry Biology Interface: Synergistic New Frontiers' held at Vigyan Bhawan, New Delhi from 21 - 26 November 2004), Invited Lecture: Towards the Synthesis of Antibiotics, Pentenomycins and Streptazolins, F. A. Khan.
99. 227th American Chemical Society National Meeting in Anaheim, CA, as part of the Symposium on 'Non-heme Iron Chemistry in Biology (March 28 - April 1, 2004) R. N. Mukherjee

100. (2) International Conference on Coordination Chemistry (ICCC36), Merida, Mexico (July 18-23, 2004) R. N. Mukherjee
101. (3) Crystal Engineering Discussion 2004: New Trends in Crystal Engineering, University of Nottingham, UK; Invited to prepare a paper for publication in CrystEngComm (September 8-10, 2004) R. N. Mukherjee
102. (4) Indo-French Seminar on Structure and Function of Metalloenzymes, Goa; organized by Indo French Centre for the Promotion of Advances Research, New Delhi (IFCPAR), Centre Franco-Indien Pour La Promotion de La Recherche Avanchee (CEFIPRA) and Tata Institute of Fundamental Research, Mumbai (December 3-5, 2004), R. N. Mukherjee
103. Third Symposium on Advances in Bioinorganic Chemistry (SABIC-2004) in conjunction with Second Asian Biological Inorganic Chemistry Conference (AsBIC-II), Goa; organized by Tata Institute of Fundamental Research, Mumbai (December 5-10, 2004), R. N. Mukherjee
104. 23rd Conference of Indian Council of Chemists, K. C. College, Mumbai, 29th-31st October, 2004, Rao M.L.N.
105. Acted as a judge for Young Scientist Award for poster presentation in organic chemistry section, Rao M.L.N.
106. National Conference on Recent Advances in Chemical Sciences, December 18-19, 2004; DAV (PG) college, Dehradun- 248 001, Rao M.L.N.
107. Invited Lecture on Recent Developments in carbon-carbon formation reactions involving organometallic reagents Rao M.L.N.
108. Participated 7th CRSI National Symposium in Chemistry held on February 4-6, 2005 at IACS Calcutta, Sankar Prasad Rath.
109. Elementary chemical reactions: not so elementary! III Annual convention of Indian Association of chemistry Teachers, Science city, Ahmedabad, November 2004, N. Sathyamurthy.
110. Atoms and Molecules in confined environments, Indo-Japan workshop, Indian Association for Cultivation of Science, Jadavpur, Kolkata, Dec. 3-4, 2004, N. Sathyamurthy.
111. Dynamics of (H-,H₂) collisions Theoretical Chemistry Symposium, BARC, Mumbai, Dec. 9-12,2004, N. Sathyamurthy.
112. Dynamics of certain ion-molecule processes, XV National conference on atomic and molecular physics, Physical Research Laboratory, Ahmedabad, Dec. 20-23, 2004, N. Sathyamurthy
113. CECAM workshop on Energy Localization, Lyon, France, September 2004, Presented a poster, Srihari K.
114. International Conference on Chemistry Biology Interface: Synergistic New Frontiers, New Delhi, 2004, Veejendra K. Yadav.

115. First International symposium on design and construction of long lasting asphalt pavements, Auburn, 7-9th June, 2004, presented a contributed paper, Das, A.
116. International Conference on Structural and Road Transportation Engineering, IIT Kharagpur, 3rd to 5th January, 2005, presented a contributed paper and co-chaired a session, Das A.
117. Intl. Conf. on Hydrological Perspectives for Sustainable Development (HYPESD2005), February 23-25, 2005, IIT Roorkee, Roorkee, India, presented contributed paper, Das A.
118. 13th World Conference on Earthquake Engineering, Vancouver, Canada; August 1-6, 2004, Presented a Contributed Paper, Gupta V.K.
119. IGCP End of the Project Meeting, 12-18 December, 2004, Malaga, Spain, Gupta V.K.
120. Thirteenth World Conference on Earthquake Engineering, Vancouver, Canada, 1-6 August 2004, Murty, C.V.R.
121. Importance of maintenance technologies in the field of concrete, The First International Conference of Asian Concrete Federation, Chiang Mai, October 28-29, 2004 [Invited lecture], GTaketo Uomoto and Sudhir Misra.
122. QC in concrete construction on the basis of acceptance criteria for compressive strength, The First International Conference of Asian Concrete Federation, Chiang Mai, October 28-29, 2004, Arun Kumar, R. and Sudhir Misra,.
123. Participated in Indian Geotechnical Conference 2004 at Warangal, dated Dec. 18- 20, 2004 for presenting paper, Patra, N.R.
124. Title 13th World Conf. on Earthquake Engineering Place Vancouver, B.C., Canada Dates August 1-6, 2004 Participation. Oral and poster presentation of two research papers, and meetings on Network of Earthquake Engineering Simulation and World Housing Encyclopedia, Rai, D.C.
125. Title Indo-US Joint NEES (Network of Earthquake Engineering Simulation) Workshop Place IIT Bombay Dates Jan 3-5, 2005 Participation. Oral presentation, Rai, D.C.
126. Title National Workshop on Experimental Methods in Earthquake Engineering Research Place IISc Bangalore Dates Feb 10-11, 2005 Participation. Oral presentation, Rai, D.C.
127. Parameterization of Ion Induced Nucleation of Sulphuric Acid and Water, AGU Fall Meeting, San Francisco, December 2004, Tripathi, S.N, Sanjeev Kumar, M.S. Modgil and E.R. Lovejoy.

128. Black Carbon Absorption Over Kanpur (an Industrial City in the Indo-Gangetic Basin) Retrieved From AERONET Data, AGU Fall Meeting, San Francisco, December 2004, Tripathi, S. N., Sagnik Dey, R.P. Singh.
129. Electrical charging of the clouds of Titan, presented in AGU Fall meeting in San Fransisco, Tripathi, S.N., W. J., Whitten, Borucki, W. J., R. C., Bakes, E. L. O. and Tripathi, S.
130. Model studies on atmospheric ion-induced nucleation of sulfuric acid and water: Interpretation of in-situ measurements, presentation in European First Space Weather Week, Noordwijk (The Netherlands), 29th- 3rd Dec. 2004, Vijay Kanawade and Tripathi, S. N.
131. Session chair for Tropospheric Aerosol Processes Session, American Geophysical Fall Meeting, San Francisco, December 2004, Tripathi, S.N.
132. Five invited lectures in the 4th PG Course on Space and Atmospheric Science of CSSTEAP (Center for Space and Technology Education in Asia and Pacific) conducted at Physical Research laboratory, Ahemdabad, August 2004, Tripathi, S.N.
133. Sun HPC Consortium, Heidelberg, Germany, June 2004, Conference Attended, S.K Aggarwal
134. Supercomputing 2004, Heidelberg, Germany, June 2004, Conference Attended, S.K Aggarwal
135. Advances in Computer Science and Technology 2004, St Thomas Island USA, Nov2004, Contributed Paper, S.K Aggarwal
136. FSTTCS 2004, Chennai, Dec 2004, Conference Attended, Manindra Agarwal
137. STACS 2005, Stuttgart, Feb2005, Invited Talk, Manindra Agarwal
138. Wireless Development, Djursland Denmark, Sep 2004, Invited Talk, Bhaskar Raman, Third workshop on Hot Topics in Networks, San Diego CA USA, Nov 2004, Contributed Paper, Bhaskar Raman
139. International Conference on Very Large Databases, Toronto Canada, Aug 2004, Contributed Paper, Sumit Ganguly.
140. International Conference On Distributed Computing and Internet Technology, Bhubaneswar, Dec 2004, Contributed Paper and Programme Chair, RK Ghosh
141. International Workshop on Distributed Computing, Kolkata, Dec 2004, Contributed Paper, RK Ghosh
142. 13th Use nix Security Symposium, San Diego, Aug 2004, Contributed Paper, Deepak Gupta
143. Fourth Indian Conference on Computer Vision, Kolkata, Dec 2004, Chairing a Session, Phalguni Gupta

144. International Conference on VLSI Design, Calcutta, Jan 2005, Conference Attended, Ajai Jain
145. International Conference on VLSI Design, Calcutta, Jan 2005, Conference Attended, S K Mehta
146. Indian Conference on Vision Graphics and Image Processing, Calcutta, Dec 2004, Conference Attended, Pabitra Mitra.
147. Embedded Systems Conference, Munich, Nov 2004, Contributed Paper, Rajat Moona.
148. International Conference on Field Programmable Technologies, Brisbane
149. Australia, Dec 2004, Contributed Paper, Rajat Moona
150. High Performance Computing, Bangalore, Dec 2004, Contributed Paper, Rajat Moona.
151. Sun Network Conference, Shanghai China, June 2004, Conference Attended, Dheeraj Sanghi
152. Microsoft Faculty Summit, Seattle, USA, Aug 2004, Conference Attended, Dheeraj Sanghi.
153. 11th Int'l Conf. on High Performance Computing, Bangalore, Dec 2004, Conference Attended, Dheeraj Sanghi.
154. FSTTCS 2004, Chennai, Dec 2004, Conference Attended, Anil Seth.
155. ISTRANS- 2004, New Delhi, Nov 2004, Conference Co- Chair, R.M.K Sinha.
156. SPLASH- 2004, New Delhi, Nov 2004, Conference Co-Chair, R.M.K Sinha.
157. 26 THAICL, Shillong, Dec 2004, Contributed Paper, R.M.K Sinha.
158. National Seminar on Contemporary, Delhi, March 2005, Contributed paper, R.M.K Sinha.
159. Landmarks on the American Scene: Then and Now, MELUS-India Conference, Panjab University, 28-29 March, 2005, G. Neelakantan.
160. De-Scribing the Indian Woman: New Autobiographical Ventures by Indian English Women Writers, National Seminar on 'Fact and Fiction: Autobiography After the Death of the Author', Department of Germanic and Romance Studies, University of Delhi, 10-12 March, 2005, Suchitra Mathur.
161. Language, Nation, Community: The Politics of Ethnicity in the Indian-English Novel, The Thirteenth International Triennial Conference of ACLALS, Hyderabad, 4-9 August 2004, Suchitra Mathur.
162. Caught Between the Goodness and the Cyborg: The Politics of Science and Gender in Indian English Science Fiction, The National Women's

- Studies Association Conference, Milwaukee, USA, 17-19 June, 2004, Suchitra Mathur.
163. Complex Predicates and Semantic Underspecification, ICOSAL-6, Osmania University, Hyderabad, 2005, Achala M Raina.
 164. Contrastive Polysemy Resolution in the Bilingual Mind, ICOSAL-6, Osmania University, Hyderabad, 2005, Somshukla Banerjee, Achla M Raina.
 165. Focus Particles in Complex Predicate Structures: Crosslinguistic Asymmetries, The 26th All India Conference of Linguists (AICL-26), Shillong, 2004, Achla M. Raina, K. Choudhary, A. Thakur,
 166. Imagination in Amitav Ghosh's Shadowlines, International Conference on Commonwealth Language & Literature, Hyderabad, Aug. 4-9, 2004, Mini Chandran.
 167. Locating the White Writer in Post-apartheid South Africa, National Conference of Indian Association of Commonwealth Language & Literature Studies, Chennai, Feb. 9-12, 2005, Mini Chandran
 168. From Resistance to Acceptance: A Wriggling Journey Between Despair and Hope in Rohinton Mistry's Such a Long Journey, International Conference on Protest and Aftermath in Post-War Literature in English, Department of Post-Graduate Studies & Research in English, Rani Durgavati Vishwavidyalaya, Jabalpur in Association with Indira Gandhi National Open University, Aug. 20-21, 2004, T. Ravichandran
 169. Grecian Urn in Garbage Can: The Postmodern Disabling of Ethics, Aesthetics and Axiology, The Second International Conference on Postmodernism, Globalisation and the Media, The Mudra Institute of Communication (MICA), Ahmedabad, India, the University of Limerick, Ireland and Tokyo Urban Tech, Japan, 5-7 March, T Ravichandran.
 170. Pain in the Neck of a Theory of Meaning, National Seminar on Mind and Language, University of Hyderabad, Nov. 15-17, 2004, B.H. Boruah.
 171. Autonomy and the Virtue of Self-legislation, National Seminar on 200 Years of Kant: An Examinatin of the Notions of Enlightenment, Autonomy and Terror, Goethe-Institute, Max Muller Bhavan, New Delhi, Neemrana for Palace, Rajasthan , Oct.7-9, B.H.Boruah.
 172. Environmental Protection: The Role of Regulatory System in India, The Annual Conference of the Indian Econometric Society, Jadavpur University, Kolkata, Jan. 20-22, 2005, P.M. Prasad.
 173. Return to Scale in Urban Bus Transport, 41st Annual Conference of The Indian Econometric Society (TIES), the Department of Economics, Jadavpur University, Kolkata, Jan. 20-22, 2005, S.K. Singh.

174. Productivity, Prices and Profitability: A Case Study of Urban Bus Companies in India, 46th Annual Conference of the Indian Society of Labour Economics, Institute of Development Studies, Jaipur, Dec. 16-18, 2004, S.K. Singh
175. Urban Bus Policy to Reduce Air Pollution and Congestion, Better Air Quality (BAQ) Workshop, Ministry of Environment and Forests (MoEF), India and the Clean Air Initiative for Asian Cities (CAI-Asia), Agra, Dec. 6-8 2004, S.K. Singh
176. National Workshop on Liberalism, Indian Liberal Group, Mumbai, 15-18 October 2004, M. Jha
177. North Zone Regional Workshop on Curriculum on Human Development, Institute for Social Development, New Delhi in Association with Giri Institute for Development Studies, Lucknow, Sept. 13, 2004, M. Jha.
178. Tribal Health Issues and Challenges: A Study of Raigarh and Surguja Districts of Chhattisgarh, National Seminar on Tribal Demography, Health and Development in India, Hotel Piccadily, Raipur, Chhattisgarh, February, 25-26, 2005, A. K. Sharma, A. K. Mishra, and Rita Singh.
179. Steering Development: Some Lessons from the Indian Villages, National Seminar on Rethinking Villages: An Interdisciplinary Discourse on Development, Modernity and Change, Govind Ballabh Pant Social Science Instituasdte, Jhusi, Allahabad, 24-25 May 2004, A.K. Sharma.
180. Routes to General Population: Redefining Vulnerability, International Conference on People's Sexual and Reproductive Health Needs in Asia: Progress, Achievements and Ways Forward, Organized by Centre for Operations Research and Training (CORT), Baroda, in collaboration with WHO, Population Council, Pathfinder International, Family Planning Association of India, CST-UNFPA Nepal, and CRDC Baroda, at The Claridges Hotel, New Delhi, 2-4 Dec. 2004, Ashish Kumar Mishra, S. K. Singh and A. K. Sharma.
181. Issues in Implementing Rural Development Programmes in India, National Seminar on Changing Perspectives of Rural Development: Emerging Challenges in the Context of Globalization, Department of Sociology, Osmania University, Hyderabad, Feb. 17-18, 2005, A.K. Sharma and Rita Singh.
182. Sexual Behaviour among MSM: Problems and Prospects of Risk Reduction for STD/HIV, Ist National Conference of AIDS Society of India, April 2-4, 2005, Hotel Ashok, New Delhi Ashish Kumar Mishra, S. K. Singh, and A. K. Sharma.

183. Religiosity and Spirituality in the Domain of Health: Some Observations, 8th International and 39th National Conference of the Indian Academy of Applied Psychology on Positive Health and Well Being, The Department of Psychology, Maharishi Dayanand Univertisty, Rohtak, July, 15-17, 2004, R. Singh, A. Mehrotra and Shikha Dixit.
184. Facilitating Learning: A Framework for Effective Instruction, National Seminar on Enhancing Human Potential: Psychology Perspectives, Department of Psychology, Dayalbagh Educational Institute, Agra, Oct. 1-2, 2004, Shikha Dixit.
185. The Concept of Quality of Life in Health and Illness: Some Relevant Issues, International Conference on Applied and Community Psychology: Trends and Directions, Department of Psychology, Gurukul Kangri University, Haridwar, Feb. 26-28, 2005. R. Singh, Shikha Dixit.
186. A Study of Objective and Perceived Disease Severity Among Cancer Patients, International Conference on Applied and Community Psychology: Trends and Directions, Department of Psychology, Gurukul Kangri University, Haridwar, Feb.26-28, 2005, A. Mehrotra and Shikha Dixit.
187. Human Development in a Rights Framework, National Seminar on Issue in Human Development, GB Pant Institute of Social Science, Allahabad, Oct.28-30, 2004, M. Jha.
188. Notion of Human Rights in India, National Seminar on Reconstructing Democratic Concerns in Modern India, Lokniti, Centre for the Study of developing Societies (CSDS), New Delhi, Oct. 8-10, 2004, M. Jha.
189. (31) The Competitiveness Index and Factors Affecting the Index, presented as Key Note Speaker in the International Conference on Creating Global Competitive Advantages, Laxpra Foundation, Udaipur, August 07-08, 2004, K. K. Saxena, Ruchi Sharma.
190. Intellectual Property Rights and Foreign Direct Investment – A Review, accepted in the IIDS 6th International Seminar on WTO and An Asian Union, La Salean Institute, Colombo, November 27-28, 2004, K. K. Saxena, Ruchi Sharma.
191. Are Mental Kind Terms Rigid Designators, National Seminar on Mind and Language, University of Hyderabad, 2004, C. A. Tomy.
192. Projective Techniques: Can They be Standardized, Workshop on Standardization of Measures of Psychological Constructs, G.B. Pant Social Science Institute, Jhusi, Allahabad, July 11-12, 2004, L. Krishnan.
193. Concepts of Social Behaviour in India, International Congress of Psychology, Beijing, China, Aug. 8-13, 2004, L. Krishnan.

194. Reward-Cost Orientation and Reactions to Performance Feedback, 15th Annual Convention of the NAOP, K.S. Saket P.G. College, Ayodhya, March 4-6, 2005, L. Krishnan.
195. Enhancing the Role of Environmental Information for Improved 'Decision Making', Workshop programme organized by MOEF, Government of India at New Delhi, June 28, 2004, B. Rath.
196. Scope of Linking of Indian Rivers for Human Development of a Backward Region like Orissa, National Seminar on Issues in Human Development, GB Pant Social Science Institute, Allahabad, October 29-30, 2004, B. Rath.
197. Performance Evaluation of Watershed Development Schemes in the KBK Districts of Orissa, 64th Annual Conference of Indian Society of Agricultural Economics, Coimbatore, Tamilnadu, December, 15-17, 2004, B. Rath.
198. Scope of Water Harvesting System in Hilly Terrains: A case Study of Purunagarh Area of Angul District, 37th Annual Conference of Orissa Economic Association, Christ College Cuttack, February 19-20, 2005 B. Rath and N. C. Sahu.
199. Organized a Symposium on Current Contributions to Indian OB Research and Practice, the 15th Annual conference of the National Academy of Psychology, KS Saket College Faizabad, March, 4 – 6, A. K. Sinha.
200. Not by Trust Alone: Explorations in Hospitality Industry Annual conference of the National Academy of Psychology, KS Saket College Faizabad, March, 4 – 6, N. S. Bhullar and A. K. Sinha.
201. Keeping Security Service Personnel Functional: The Role of Some Organizational Level Variables, Annual conference of the National Academy of Psychology, KS Saket College Faizabad, March, 4 – 6, N. S. Bhullar and A. K. Sinha.
202. Firm Size, Venture Status and Organizational Performance: An Experience from Indian Two-Wheeler Manufacturing Organizations, Annual conference of the National Academy of Psychology, KS Saket College Faizabad, March, 4 – 6, A. K. Jain, and A. K. Sinha.
203. Urban Land use in India: A case Study of Urban Development Authorities, Conference on Law, Economics and Development, during March 31- April 1, 2005 at Centre for the Study of Law and Governance, Jawaharlal Nehru University, New Delhi, P. M. Prasad.
204. Environmental protection: The Role of Regulatory System in India International Conference on Environment and Development: Developing Countries Perspectives, during 7-8 April 2005 at School of International Studies, Jawaharlal Nehru University, New Delhi, P. M. Prasad.

205. International Conference on Environmental Fluid Mechanics (ICFEM'05), IIT Guwahati, March 3-5, 2005, Ghorai, S.
206. WCNA 2004, Orlando, USA: June 30 – July 07'04, Kadalbajoo, M.K.
207. Attended first Indo German conference on PDE, Scientific
208. Computing and Optimization in Applications at University of Trier as a member of INSA delegation and delivered an invited talk on Spectral element methods for parabolic problems on parallel computers in September 2004. (This has been submitted to Journal of Computational and Applied Mathematics which is bringing out a special issue on this conference), Dutt P.
209. Feb. 2005 and delivered a talk on Pulsating spectral element methods for Hyperbolic Problems (Currently under review in Mathematics of Computation) , Dutt P.
210. 6th International Conference of the Asia Pacific Operational Research Society, December 7th-11th 2003, New Delhi, Dutta J.
211. Dutta, J., 4th Internal Conference on Operations Research, 7th to 9th January 2004, ISI, Calcutta, Dutta J.
212. Dutta, J., World Congress of Nonlinear Analysis, June 30th – July 7th, Orlando, U.S.A. 2004, Dutta J.
213. Dutta, P., 6th International Conference on Optimization Techniques and Applications, University of Ballarat, 9th-11th December 2004, Dutta P.
214. 37th Annual ORSI Convention, IIM Ahmedabad, 8-11th Jan. 2005, Sharma P.
215. International Conference on Recent Advances in Statistics held at I.I.T. Kanpur, from January 6, 2005, Misra N.
216. Conference on Mathematics, 2004 organized by Bharat Ganita Parishad and Department of Mathematics & Astronomy, Lucknow University, Lucknow in December, 2004, Manjul G.
217. National Conference on Fluid Mechanics and its applications at Osmania University, Hyderabad, Feb. 9-10, 2005, Chandra P.
218. Wavelet Taylor Galerkin Method for Partial Differential Equations, World Congress of Nonlinear Analysis, June 29-July 7, 2004, Orlando, USA, Rathish, B.V.K.
219. Wavelet Based Methods for NS Equations, Conference on Recent Trends in Nonlinear Analysis and its Applications (CNAA-04, 11-13 Dec. 2004 at IIT, Mumbai, Rathish B.V.K.
220. WEB-Spline based Stabilized Mesh Free Methods for Viscous Fluids, National Conference on Mathematical Modelling and Scientific Computing, Oct. 7-8, 2004, BITS, Pilani, Rathish B.V.K.

221. Hemodynamics in Arteries under pathological conditions, National Conference on Computational Fluid Dynamics, NAL, Aug. 7-9, 2004, Bangalore, Rathish B.V.K.
222. International Conference on Recent Advances in Statistics at IIT Kanpur, during January 4th to 6th, 2005, Kundu D.
223. Analysis of a new step stress model, International Conference on Recent Developments in Statistics, held at the McMaster University, Canada, during July 15-16, 2004, Kundu D., Balakrishnan N.
224. Chairing a session on reliability, at the International Conference on future of Statistical Theory, Practice and Education, held at the Indian School of Business Hyderabad during 27th to 31st of December, 2004, Kundu D.
225. Prediction and Analysis of the Bubble Formation in Film Boiling, IMECE-2004, Vol. 1 (ISBN: 0-7918-4178-2, November 13-19, 2004, Anaheim, California, USA. Agrawal, G. Biswas, S.W.J. Welch and F. Durst.
226. National Conference on Nonlinear Systems and Dynamics held at AMU, Aligarh, Feb. 2005, Presented an invited talk, Chaired a session, A.K. Mallik.
227. 31st Fluid Mechanics and Fluid Power conference at Jadavpur University in December 2004. Chaired a session on Inverse techniques, K. Muralidhar.
228. 4th International Symposium on Fuels and Lubricants, Oct 27-29, 2004. Chairman, Technical Session on 'Gaseous Fuels', Attended & Invited Talk, B.P.Pundir.
229. Homogeneous Charge Compression Ignition Engine Concepts, National Seminar on Combustion under the aegis of The Combustion Institute (Indian Section), IIT Kanpur, Nov 8, 2004, B.P.Pundir.
230. Biodiesel - Its Potential as an Alternative Fuel, National Conference on Energy from Bio-Mass, LNCT, Bhopal, March 11-13, 2005, B.P.Pundir
231. 4th WSEAS International Conference on Wavelet analysis and multivariate systems, Athens, Greece, 28-12-04 to 01-05-05, Paper presentation, P.K. Panigrahi.
232. IASTA Meeting and International Conference on AEROSOLS, CLOUDS AND INDIAN MONSOON, November 15-17, 2004, IIT Kanpur. (Presented two contributed papers), Avinash Kumar Agarwal.
233. National Conference on Biodiesel, held at CIAE, Bhopal, 3-4 December 2004. (Presented two invited and two contributed papers), Avinash Kumar Agarwal.
234. ICES2005 ASME Internal Combustion Engine Division 2005 Spring Technical Conference, April 5-7, 2005, Chicago, IL, USA. (Chaired three sessions and presented two contributed papers), Avinash Kumar Agarwal.

235. SAE World Congress 2005, April 11-14, 2005, Detroit, Chicago. (Chaired a session and presented three contributed papers), Avinash Kumar Agarwal.
236. 13th International Heat Pipe Conference, September 21-25, 2004, Key Note Lecture, Closed and open loop pulsating Heat Pipes, Sameer Khandekar.
237. 8th India-Japan Joint seminar on Advanced Manufacturing Systems, February 20-26, 2005, Indian Institute of Technology Kanpur, N. Venkata Reddy.
238. Annual Technical Conference (ANTEC 2004), May 16-20, 2004, Chicago, Illinois, USA, Kamal K.Kar.
239. The XIV international congress on Rheology 2004, August 22-27, 2004, Seoul, Korea (Contributed Paper), Kamal K.Kar.
240. Numiform at Ohio State University, Columbus, Ohio (USA), V.K.Jain.
241. ISEM held at Univ. of Edinburgh, Edinburgh (UK), V. K. Jain.
242. AIMTDR Conf. Held at V.I.T. Vellore, V.K.Jain.
243. Chaired a session on Micro-machining in 21st AIMTDR held at VIT Vellore, (TN), India, Dec. 2004, V.K.Jain.
244. Session chaired in National Conference on Advancement in Engineering and Technology held at Jabalpur during Feb. 20-21, 2004 at Jabalpur and organised by Hitkarni College of Engineering and Technology, Jabapur, V.K.Jain.
245. The EPFL Latsis symposium – 2005 on Negative refraction: revisiting electromagnetics from microwaves to optics at the Ecole Polytechnique Federale de Lausanne, Switzerland on 28 Feb to 02 Mar 2005, presenting an invited talk entitled Designing super-lenses with negative refractive index materials S.A. Ramakrishna.
246. International Workshop on Vortex Physics, TIFR, Mumbai, January 2005, R.C. Budhani.
247. RRNS-DAE Spintronics core group meeting at BARC, Feb. 16, 2005, R.C. Budhani.
248. Some general results for non-covariant gauges in Yang-Mills theory, Invited Plenary Talk in THEP-1 Conference at IIT Roorkee, March 16-20, 2005, S.D. Joglekar.
249. Violation in Non-local Quantum Field Theory, Invited Talk in THEP-1 Conference at IIT Roorkee, March 16-20, 2005, S.D. Joglekar.
250. DAE-BRNS, Indian Particle Accelerator Conference, Variable Energy Cyclotron Center, Kolkata, March 1-5, 2005, Invited Oral Presentation, S. Bhattacharjee.

251. Invited talk at International Conference on Complex Networks: Statphys Kolkata V, a satellite meeting of STATPHYS 22, Kolkata, June 2004, D. Chowdhury
252. Invited talk at International Conference on Pattern Formation in Nonequilibrium Systems, a satellite meeting of STATPHYS 22, Kolkata, July 2004, D. Chowdhury.
253. Contributed talk at STATPHYS 22: International Conference of International Union of Pure and Applied Physics on Statistical Physics, Bangalore, July 2004, D. Chowdhury.
254. Invited talk at Life Science Interface Workshop, Engineering and Physical Sciences Research Council, U.K., coordinated by the British High Commission in India, January 2005, D. Chowdhury.
255. Presented an invited talk titled Melting of heterogenous vortex matter: the vortex nanoliquid at the xth international vortex state studies workshop (IVW-X) at the Tata Institute of Fundamental Research, Mumbai, 9th – 14th Jan, 2005, S.S. Banerjee.
256. Presented an invited tutorial talk titled Magneto-optical imaging of superconductors at a satellite tutorial session arranged prior to the the xth international vortex state studies workshop (IVW-X) at the Tata Institute of Fundamental Research, Mumbai, 7th – 9th Jan, 2005, S.S. Banerjee.
257. International Conference on Optical Probe 2005, held at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore on 04-08 January, 2005, Y.N. Mohapatra.
258. To attend International Conference on Materials Research Society 2005 (MRS), Sanfransico, CA, USA, on March 28 to April 1, 2005, Y.N. Mohapatra.
259. 20th General Conference of Condensed Matter Division European Physical Society, 19-23 July, 2004, Prague, Czech Republic; Presented a poster. Z. Hossain
260. 49th DAE Solid State Physics Symposium, Amritsar, Dec 26-30, 2004. (Invited Talk), S. Kumar.
261. Attended International String Theory Workshop ISM04 at Khajuraho, Dec 2004. Organization, G. Sengupta.
262. Living on the Edge: The search for a Multi-dimensional world – TIFR Institute Colloquium, TIFR Bombay, March 2004, Invited talk by S. Raychaudhuri.
263. A Critique of New Physics Expectations at a TeV – DAE High Energy Physics Symposium, Saha Institute of Nuclear Physics, Kolkata, November 2004, Invited talk by S. Raychaudhuri.

OTHER ACTIVITIES

TECHNOLOGY DEVELOPED

1. Design and development of a novel vortex combustor, D.P. Mishra.
2. Estimation algorithm for parameter estimation of a projectile using radar tracked data, A K Ghosh.
3. S. Garg. A cheap method for Methyl-ester estimation in biodiesel production. Further refinement of the methodology underway.
4. J.P. Gupta, 'Study of runaway reactions'.
5. Funded by Dr Arindam Bose, an alumnus, this project is to study runaway reactions in chemical industry so appropriate procedures can be put in place to minimize this event and also to contain the consequences if it should occur. A greatly improved version of an equipment, costing in import over Rs. 20 lacs (over \$40,000), has been designed and fabricated for approx. Rs. 3 lacs (\$6,000). It incorporates Labview software for operations purposes. Its design will be released so more companies can afford to conduct tests. Thorough testing of the equipment will soon start. (Jointly with Dr. Sanjay Gupta, ACMS)
6. Methodology to generate suitably substituted cyclopentenes for meaningful drug-design and drug-development, Veejendra K. Yadav.
7. Methodology to generate 2,4-6-trisubstituted tetrahydropyrans for meaningful drug-design and drug-development, Veejendra K. Yadav.
8. Methodology for the transformation of nitriles into industrially useful imidates, Veejendra K. Yadav.
9. Sanjeev K Aggarwal, Tools for Programme Quality Testing, Technology commercialized by STQC, DIT.
10. Bhaskar Raman, The 2P MAC protocol (modification for performance improvement, Implementation in open source HostAP driver), further development needed.
11. Rajat Moona, Smart Card OS for Id Applications., Ready for transfer and Deployment.
12. B M Shukla, Indian Railway Information System. It is a superset database for Indian Railway.
13. Till now it is developed as Open Domain. It needs more money for further development & data collection.
14. B M Shukla, Web based Horoscope Casting & Match Making Package (Open Domain)

15. B M Shukla, Hindi Film Information Software (Under Continuous Data updation), (Open Domain).
16. B M Shukla, On Line Web based Hindi Film Information System (Open Domain).
17. B M Shukla, Plants of India" V 2 web based Software. Software transferred to NBRI in May 2004.

(B) SOFTWARE DEVELOPED

1. Numerical simulation of droplet combustion, D P Mishra.
2. Software for parameter estimation of a projectile using radar tracked data, Handed over to ARDE Pune, A. K. Ghosh.
3. Software for stability analysis of ribbon stabilized non-spinning bomblet/ammunition, Handed over to ARDE, Pune, A. K. Ghosh.
4. S. Garg, "JACA: Java implementation of Adaptive Centroid Algorithm for gene expression Profiling". Further development to add gene pathway analysis underway.
5. Chakroborty, Partha, "A GIS based software for transit trip planning," the software needs some slight modifications on the GUI.
6. Dr. P.M. Dixit, Wrinkling Prediction in Deep Drawn Cup. Further development needed.
7. Dr. Anupam Saxena, Software on reconstruction of 3D solids using multiple orthographic views with Amitesh Mishra
8. Dr. Anupam Saxena, Software on Automated Modular Fixture planning with Prince Malik, Srikant Bansal and N V Reddy

(C) INDUSTRIES VISITED

1. Peer Review Meeting At ARDE, Pune for "Trajectory Correction system for PINAKA" with IMI, Israel 10th April, 2004, A K Ghosh.
2. Peer Review Meeting at ARDE, Pune for "Project Enhanced of range rocket 122mm, 11th Jan, 2005, A K Ghosh.
3. G. Deo, Visit to Lehigh University, Bethlehem USA for Research on Heterogeneous Catalysis from May, 2004 to December, 2004. Patents
4. Delivered two lectures at a UGC-Refresher Course in Osmania University, Hyderabad 18-10-2004, V. Chandrasekhar, Ruhr-Universitaet Bochum, Germany, Collaborative Research, June 10-July 9, 2004, Chandra A.

5. Das, A., visited Worcester Polytechnic Institute, USA from 10th May to 2nd July, 2004 and did collaborative research works.
6. Das, A., visited Transportation Infrastructure Division, L&T Chennai, on 5th November, 2004, gave a talk on “Chances that a bituminous mix design will meet specifications” and had a detailed discussion on possible collaborative research with IIT Kanpur, IIT Madras and L&T Chennai.
7. Lohani, B., LEOS, ISRO, Bangalore, to discuss development of a Chandrayan instrument, 25-26 February 2005
8. Rajat Moona, Mentor Graphics Hyderabad, ECIL Hyderabad, Infosys Bangalore, Free scale.
9. IIIT Hyderabad, Dheeraj Sanghi.
10. IIIT Allahabad, Dheeraj Sanghi.
11. Pant Institute of Social Sciences Allahabad, Dheeraj Sanghi.
12. AK College of Engineering Srivilliputtur, TN, Dheeraj Sanghi.
13. Univ. of Texas Austin, USA, Dheeraj Sanghi.
14. CDAC Hyderabad, Dheeraj Sanghi.
15. Shoghi Communications Ltd. New Delhi, Dheeraj Sanghi.
16. Cisco Inc., San Francisco USA, Dheeraj Sanghi.
17. Microsoft Corpn. Seattle USA, Dheeraj Sanghi.
18. Hughes Software Systems Gurgaon, Dheeraj Sanghi.
19. SIFY New Delhi, Dheeraj Sanghi.
20. MCTE Mhow, Dheeraj Sanghi.
21. TRAI, New Delhi, Dheeraj Sanghi.
22. ERNET New Delhi, Dheeraj Sanghi.
23. EDCI Noida, Dheeraj Sanghi.
24. Larsen & Toubro- Management Development Center, Dr. J Chatterjee.
25. TIFAC, DST, Dr. J Chatterjee.
26. Siemens Public Communication Networks Ltd, Dr. J Chatterjee.
27. Pulsar Knowledge Center, Dr. J Chatterjee.
28. Wataniya Telecom, Kuwait, Dr. J Chatterjee.
29. Showtime, Dubai, Dr. J Chatterjee.
30. Burgen Bank, Kuwait, Dr. J Chatterjee.
31. APAC study group for Product Life Cycle Management Institute, Singapore for Product Development Management Association, New Jersey, Dr. J Chatterjee.
32. The expert group on 'IT based Applied project management' at MHRD, Dr. J Chatterjee.
33. ITC e-Choupal and Karnataka Bhoomi Project Development Centers, Dr. J Chatterjee.

34. Research Centre Imarat, Defence Research & Development Laboratories, Hyderabad, Dr. J Chatterjee.
35. Ghorai, S., University of Glasgow, BOYSCAST fellowship on Design of Efficient Numerical/Qualitative methods for solving differential equations, 30/01/2004-23/07/2004.
36. Rawat, R., In International workshop on Harmonic Analysis on Symmetric Spaces”, held from June 21, 04 to July 9, 04 in ISI, Bangalore and jointly organised by IIT Kanpur & ISI Calcutta.
37. Bahuguna. D., Delivering series of lectures on “Ordinary Differential Equations” and Laplace Transforms”, for Chattisgarh Universities.
38. Bahuguna, D., Participated and Chaired a session in the International Congress of Nonlinear Analysis – WCNA-2005 at Orlando, Florida, USA, June 1-8, 2004.
39. Sharma, P., “Minimising Makespan of Deteriorating Jobs: An Efficient Heuristic”, The 18th International Symposium on Mathematical Programming”, Technical University of Denmark Copenhagen, Denmark, Aug. 2003.
40. Sharma, P., Gupta, A., “An Efficient Local Search Scheme for Mean Absolute Deviation Problem”, 37th Annual ORSI Convention, IIM Ahmedabad, January 2005.
41. Ray, S.K., Harmonic analysis on noncompact rank one symmetric spaces”, ISI, Bangalore.
42. Rathish, B.V.K., ICMB 2004, Feb. 19-22, 2004.
43. Chandra, P. delivered two lectures on Biofluid Mechanics at Department of Mathematics, Osmania University, Hyderabad, Feb. 11, 12, 2005.
44. Chandra, P., Will be delivering lectures at National Workshop on “Biomechanics” March 18-19, 2005 at Kamala Inst. Tech. and Science, Huzurabad.
45. Shalabh, Institute of Statistics, Ludwig Maximillian University, Munich., Germany in 2004.
46. Shalabh, Department of Statistics, University of Dortmund, Dortmund, Germany in 2004.
47. Shalabh, Institute of Statistical Science, Academia Sinica, Taiwan in 2004.
48. Kundu, D., Editorial Board Member of the Journal of Modern Applied Statistical Methods.
49. Kundu, D., Editorial Board Member of the Journal Statistics and Its Applications.
50. Kundu, D., Editorial Board Member of the Journal Communications in Statistics – Theory and Methods.

51. Kundu, D., Editorial Board Member of the Journal Communications in Statistics – Simulation and Computation.
52. Sharma, P., Co-Editor of the Special Edition of Journal of Applied Mathematics & Decision Sciences.
53. Dr. A.K. Mallik, Bose Corporation- Boston- June, 2004. Possible collaboration between Bose Corp. & IIT Kanpur.
54. Dr. P.K. Panigrahi, AIR BUS, Bremen, 15th March, 2005.
55. Dr. Avinash Kumar Agarwal, Argonne National Laboratory, Chicago, 7th April, 2005.
56. Dr. Avinash Kumar Agarwal, Photonics Institute, Technical University of Vienna, Austria, June 2004.
57. Dr. Avinash Kumar Agarwal, AVL Research and Development Center, Gurgaon, July 2004.
58. Dr. N.Venkata Reddy Central Mechanical Engineering Research Institute, Durgapur, March 21-23, 2005.
59. Dr. Kamal K. Kar Avadh Rubber Limited, Lucknow and DMSRDE, Kanpur Purpose: Utilization of Instrumental facilities.
60. A.K. Majumdar – Forschungszentrum Karlsruhe, Institut für Nanotechnologie, Karlsruhe, Germany, Alexander von Humboldt Fellow, May-June 2004.
61. A.K. Majumdar – Low-temperature Physics Laboratory of Helsinki University of Technology, Helsinki, Finland. To interact with scientists and specially the Director and to give invited talk, May 20-24, 2004.
62. S.A. Ramakrishna – Raman Research Institute, Bangalore, Collaborative research and to give a course entitled “Quantum Optics” to the struduate students, 10 May – 05 June 2004.
63. S.A. Ramakrishna – Imperial College London, Collaborative Research, 10 June – 25 July 2004.
64. R.C. Budhani – visited Superconductivity Research Centre, University of Maryland, May-June 2004.
65. R.C. Budhani – visited CRISMAT Laboratory, Caen, France, June-July 2004.
66. S. Bhattacharjee – visited Nuclear Science Center, New Delhi for Scientific Interaction, 15-17 December, 2004.
67. S. Bhattacharjee – visited Nuclear Science Center, New Delhi for Invited Presentation, 28-29 March, 2005.
68. Z. Hossain - Max-Planck Institute for Chemical Physics of Solids, Dresden, for collaborative research, June 1- July 23, 2004.
69. Z. Hossain - NPL, New Delhi, to visit low temperature facility, September 2004 (one day).

70. Z. Hossain - Max-Planck Institute for Chemical Physics of Solids, Dresden, for collaborative research, December 1- 24, 2004.
71. S. Kumar - Samtel Technology Lab, Ghaziabad.
72. V.V. Sreedhar – Institute of Theoretical Physics, Uppsala University, Uppsala, Sweden, June-August, 2004.

(D) PATENTS

1. A Wind Turbine System which uses a Flexible Cable for Transmission of Torque & Mechanical Power”. Kunal Ghosh.
2. A Patent filed in collaboration with NIO Goa, NCCS Pune, AIIMS and ICGEB New Delhi. The patent has been filed to India and U.S.A. also “Novel Molecules to develop drug for the treatment of Osteoporosis” Rao, K.V.S.; Wani, M.R.; Manivel, V.; Parameswaran, P.S.; Singh, V.K.; Anand, R.V.; Mishra, G.C.; Chatterji, A. 0412NF2003, WO, 31/12/2003, PCT/IN03/00431.
3. Amitabh Mikerjee, Prakash, Manu, Gaurav Sharma, “Invention Disclosure form”, Title of Invention: Programmable Blocks. (Formal Provisional Patent Filed through Anand and Anand with Indian patent office August 04.
4. Amitabha Mukerjee and Sarala Verma, “Programmable Interface without Computer”, Initial Disclosure Filed through Media Lab Asia March 2004.
5. S. Sundar Manoharan, *Magneto-resistive CrO₂ – Polymer Composite Blends*,) Granted US Patent 6,793,841 B2 Sept 21, 2004.
6. Dr G. C. Ray, Patent on "Anaesthesia Monitor": Provisional Patent (No. 167/DEL/2004) February, 2004.
7. Dr S. P Das, Dr. K. S. Venkatesh, Pankaj Agarwal, and Rajendu Choubisa “Design and Development of a Power Supply for Personal Computer (Built-in UPS or BUPS) in Place of a Conventional SMPS and UPS Combination” submitted on 26th July 2004.
8. Dr Animesh Biswas, “Dielectric Resonator”, Application No: 1972/DEL/2004, Co-Investigators:K.V.Srivastava and V.V.Mishra.
9. Dr. Kamal K. Kar, "A process for preparation of micron sized high molecular weight polymer", Reference # 2503/DEL/2004 (INDIA), Dated 16th December 2004.
10. Dr. Kamal K. Kar, "A method of preparing fiber reinforced plastic articles using rubber pressure moulding technique, Reference # 2078/DEL/2004 (INDIA) Dated 25th October 2004.

11. White Light Emitting Zinc based OLED, Inventors: Y. N. Mohapatra, Samarendra P. Singh, S. S. Manoharan, and Q. Mohammad (Patent No.: 1776/DEL/2004).
12. S. Kumar - Patent granted: A process for depositing a polycrystalline carbon film resembling a diamond film on stainless steel substrate, No. 191198.

(E) AWARDS AND HONOURS

1. C. Venkatesan elected as a Fellow of Indian National Academy of Engineering.
2. Member, Advisory Board, International Journal for Numerical Methods in Fluids, John Wiley & Sons, Sanjay Mittal.
3. Member of the Organizing Committee of the Indo-US Frontiers of Science Symposium conducted in January 2005 by the Indo-US Forum, DST, Sanjay Mittal.
4. Member of the Organizing Committee IUTAM Symposium for Laminar Turbulent Transition, Jawaharlal Center for Advanced Scientific Research, Bangalore, India, 2004, Sanjay Mittal.
5. Member of the Organizing Committee International Seminar on Technologies & Trends in Development of Para Recovery System (PARA INTERNATIONAL 05), Agra, India, March 15-17, 2005, Sanjay Mittal.
6. Member of the Organizing Committee Seventh National Conference on Air-breathing Engines (NCABE 2004), IIT Kanpur, November 5-7, 2004, Sanjay Mittal.
7. Certificate of Merit for 2003-2004 from Institution of Engineers (India) for paper titled, "Trajectory Modeling of an Artillery Shell Using Feed Forward Neural Networks, A K Ghosh.
8. Two of the faculty members have received the prestigious "**Wellcome Trust International Senior Research Fellowship award**" from United Kingdom: **Balaji Prakash**: "Structural Studies on GTPases and EDG Family G Protein-Coupled Receptor", July 2004 – June 2009, Approx. Rs 266 lakhs. GTPases are Guanosine Tri-Phosphate (GTP) binding proteins that control multiple biochemical pathways in the cell. Hydrolysis of GTP by GTPases requires the crucial role of a highly conserved amino acid Glutamine. Mutation of this Glutamine in one such GTPase, called Ras, leads to cancers and search for drugs is a difficult task. Since three-dimensional structure of a protein dictates its function, drugs can be designed based on this knowledge. Although a lot is now understood about Ras and its structure, little success

has come by way of drugs. The project proposed here aims to provide an alternative methodology to facilitate this goal. We wish to understand how certain atypical GTPases carry out GTP hydrolysis, despite carrying oncogenic (cancerous) mutations. These GTPases (HAS-GTPases) are atypical because the essential glutamine is substituted by a hydrophobic residue, which cannot perform the same role. Using Bioinformatics, Biochemistry and Structural biology as major methodologies, we wish to understand the novel catalytic mechanisms underlying the function of these proteins. This knowledge will provide the structural framework for anti-Ras drug design.

9. V. Shankar, INSA Medal for Young Scientist (2004) awarded by the Indian National Science Academy, New Delhi for scientists under the age of 32. Award received at INSA Annual meeting held at Chennai, December 27 2004.
10. V. Shankar, Selected as an Associate of the Indian Academy of Sciences, Bangalore for the years 2004 - 2007.
 - A. Sharma, Professor Gopal Tripathi Memorial University Lecture, Banaras Hindu University (2005).
11. N. Verma, Humboldt Research Fellowship (2004-05).
12. Fellow of Indian Academy Sciences, Bangalore, V Chandra.
13. Member, International Advisory Committee for the SCM-2004: Second Seeheim Conference on Magnetism, Seeheim, Germany, June 27- July 01, 2004, N. S. Gajbhiye.
14. SSP-2004: 8-th International Conference on SOLID STATE PHYSICS, Almaty, Kasakhstan, August 23 – 26, 2004, N. S. Gajbhiye.
15. Member, National Advisory Committee for the NSASN – 2005: National Seminar on Applied Research on Solid State Chemistry and Nanotechnology, Annamalai University, February 25 – 26, 2005.
16. NSAMS – 2005: National Symposium on Advances in Material Science, D.D.U.Gorakhpur, March 17 – 19, 2005, N. S. Gajbhiye.
17. Chairperson, Project Advisory Committee (PAC, Organic); DST New Delhi, H. Ila.
18. Chairperson, WOS-I (Women Scientist Scheme, Chemical science), DST, New Delhi, H. Ila.
19. Member, Science and Engineering Research Cell (SERC), DST, New Delhi, H. Ila.
20. Member, Chemical Sciences and Technology Committee CSIR, New Delhi (for selection of SRF and RA), Awarded B. M. Birla Science Prize in Chemical Sciences for the year 2003 (2004), F. A. Khan.

21. Member, Editorial Board, Indian Journal of Chemistry, Section A, 2005, R N Mukherjee.
22. Member, Sectional Committee in Chemistry, Indian Academy of Sciences, Bangalore (2004 –), R N Mukherjee.
23. Shanti Swarup Bhatnagar Award, V K Singh.
24. Fellow, The National Academy of Sciences (FNASc), V K Singh.
25. Fellow, Indian Academy of Sciences (FASc), V K Singh.
26. Das, A., INAE Young Engineer Award –2004 by Indian National Academy of Engineers.
27. Gupta, V.K., became Fellow of “Indian National Academy of Engineering” effective from January, 2005.
28. Gupta, V.K., became Foreign Member of “Russian Academy of Natural Sciences” effective from April, 2004.
29. Gupta, V.K., got Kapitsa Medal from “Russian Academy of Natural Sciences” in 2004.
30. Gupta, V.K., gave Keynote Address in the inaugural ceremony of the 3-week long training programme under the “National Programme for Capacity Building of Engineers in Earthquake Risk Management” at Birla Institute of Technology and Science, Pilani on December 13, 2004.
31. Rai, D.C., Awards and Honours Title Technical Textbook Award Awarded by All India Council of Technical Education for to Hindi translation of IAEE Guidelines for Earthquake Resistant Non-Engineered Construction.
32. Singh, R.P., Vice President GeoRisk Commission of the International Union of Geodesy and Geophysics.
33. Singh, R.P., Member, Editorial Board, International J. Remote Sensing, Taylor and Francis, UK.
34. Sinha, Rajiv, National Mineral Award, Ministry of mines, Government of India.
35. Mainak Choudhory, Best paper award, 11th IEEE International Symposium on High- Performance Computer Architecture, February 2005.
36. R.M.K. Sinha, Member National Technical Advisory Committee of Centre for Development of Advanced Computing (CDAC).
37. Inclusion in Marquis Who’s Who in the World, 2004. G. Neelakantan.
38. Dr. Sanjeev Swami, 2004 AICTE (All India Council of Technical Education) Career Award for Young Teachers.
39. Dr. Sanjeev Swami, 2004 DST (Department of Science and Technology), Govt. of India, Fast Track Proposal for Young Scientist Awardee.
40. Jacob Wolfowitz Award 2003 for theoretical advances in Mathematical and Management Sciences for the research paper “Simultaneous Multiple

- Comparisons with the Worst and Best”, Awarded by American Journal of Mathematical and Management Sciences.
41. Rathish, B.V.K. C.L. Chandna Award by Canadian World Education Foundation for excellent teaching and research in Statistics, in the year 2004.
 42. Chandra, P., Member of PAC (Mathematical Sciences), DST, New Delhi.
 43. Kundu, D., C.L. Chandna Award by Canadian World Education Foundation for excellent teaching and research in Statistics, in the year 2004.
 44. R. Balasubramaniam: Member of Advisory Board, Materials Science Research India Journal.
 45. R. Balasubramaniam: Co-Chairman, International Conference on Corrosion CORCON2004, NACE International India Section, New Delhi, December 2-4, 2004.
 46. R. Balasubramaniam: Chairman, Infinity Meeting on History of Science and Technology in India, Kanpur, January 14-17, 2005.
 47. Bikramjit Basu: Indian National Science Academy medal for ‘Young Scientist’ in Engineering Sciences, 2005.
 48. Bikramjit Basu: ‘Young Engineer Award’ of Indian National Academy of Engineering (INAE), 2004.
 49. Bikramjit Basu: ‘Young Metallurgist Award’ of IIM by Ministry of Steels and Mines, Govt. of India, 2004.
 50. Dr. Gautam Biswas appointed as the Associate Editor to the Journal of Heat Transfer Transactions of the American Society of Mechanical Engineers (ASME) with effect from January 2006.
 51. Dr. A.K. Mallik elected Fellow of the National Academy of Sciences, India (Allahabad) - 2004.
 52. Dr. A.K. Mallik Distinguished Teacher Award- IIT Kanpur (2004).
 53. Dr. Avinash Kumar Agarwal, Career Award for Young Teachers, awarded by AICTE 2004.
 54. S.A. Ramakrishna – Young Associate of the Indian Academy of Sciences, Bangalore, 2004-2007.
 55. R.C. Budhani – Materials Research Society of India - Medal 2005.
 56. R.C. Budhani – Elected Fellow of the Indian Academy of Science.
 57. R.C. Budhani – Elected Fellow of the American Physical Society.
 58. Anjan K. Gupta – awarded Young Associate, Indian Academy of Sciences, Bangalore, India.

(F) CONTINUING EDUCATION ACTIVITIES

1. Organized a QIP short term course “**Applied Combustion**”, 14-18th February 2005, IIT, Kanpur, D. P. Mishra.
2. CEP Course On “Ballistics in Armaments” from 30th Aug, 2004 – 3rd Sep, 2004 at ARDE, Pune, A K Ghosh.
3. CEP Course on “Flight Dynamics, Stability and Control” from 16th – 20th Aug, 2004 at DRDL, Hyderabad, A K Ghosh.
4. J.P. Gupta organised a conference on the 20th Anniversary of the Bhopal Gas Tragedy: ‘International Conference on the Bhopal Gas Tragedy and its Effects on Process Safety’, December 1- 3, 2004, I.I.T., Kanpur. It was attended by delegates from 26 countries. An exhibition of photos of the tragedy by the famous photographer Mr. Raghu Rai was held. Videos on the Bhopal tragedy and the current situation there were screened. A group of 35 participants travelled to Bhopal to see the Union Carbide plant that caused the tragedy. They visited the hospital where most autopsies were done and viscera are kept. An international group was formed to work to alleviate the current situation in Bhopal. There was a lot of coverage in the press and visual media. Further details are available at the web page www.iitk.ac.in/che/jpg/bhopal2.htm
5. S. K. Gupta, Co-Coordinator, SERC School on Modeling of Industrial Reactors, IIT Kanpur, July 12 – 17, 2004 (42 participants, including 9 from industry /R&D labs).
6. D. Kunzru, co-Coordinator, SERC School on Modelling of Industrial Reactors, July 7-12, 2005, IIT Kanpur.
 - A. Sharma, Coordinator, SERC School on Colloids and Interfaces: Fundamentals and Research Challenges, IIT Kanpur, February 7-11, 2005.
 - A. Sharma, Coordinator, Advanced Workshop on Microfabrication, Self-assembly, MEMS and NEMS, IIT Kanpur, December 17-24, 2004.
7. Das, A., Short course at IIT Kanpur: (a) *proportioning of concrete mixes, and, (b) development and utilization of special concretes* Invited lectures (March, 2004).
8. Das, A., Concrete day celebrations, Indian Concrete Institute, Allahabad Chapter, *Variations in concrete compressive strength – A serious concern in QC* Invited lecture on Sept 26, 2004.
9. Conducted at IIT Kanpur on 28-29 November 2004, a National Workshop on Introducing Earthquake Resistant Design in Architecture Curriculum to develop a model curriculum and debate issues related to earthquake

- engineering education. About 60 persons from all over the country participated.
10. Conducted at Bhuj on 3-5 November 2004 along with Alpa R. Sheth, VMS Consulting Engineers, Bombay, a workshop in association with Babbie India Limited, Ahmedabad, on Workshop on Earthquake Engineering Issues and Scrutiny of Drawing for municipal engineers to train them on how to scrutinize the designs submitted to municipal offices for scrutiny.
 11. Conducted at New Delhi on 23-25 June 2004, a workshop in association with Government of NCT of Delhi on Capacity Building in Earthquake Engineering for engineers to train them on basic concepts in earthquake resistant design of RC structures.
 12. Conducted at Visakhapatnam on 7-8 June 2004, a workshop in association with the Association of Consulting Civil Engineers (India), Hyderabad Chapter, Hyderabad, on Indian Seismic Code IS: 1893(Part1)-2002 to provide train practicing professionals on the new Indian seismic code.
 13. Murty, C.V.R. Murty, Short Course on *Architecture for Earthquake Resistance of Buildings* for architecture college teachers at:
 - A. I.I.T.Kanpur in 17-21 January 2005 (24 participants under NPEEE)
 - B. SCET, Surat in March 2005 (38 participants under NPEEE)
 - C. Sensitisation of Architects of *Indian Institute of Architects*, 14 April 2004 at Jammu, 04 September 2004 at Chandigarh
 - D. Sensitisation of Polcity Makers of *Government of NCT Delhi* 13 December 2004 at New Delhi.
 14. Rai, D.C., Introduction to Earthquake Engineering Type Sponsored by IRDT, Kanpur, IIT Kanpur Dates June 14-18, 2004 Number attended 22.
 15. Sinha, Rajiv, Tectonic Geomorphology, Sponsored by Department of Science and Technology, New Delhi, 3-7 May, 2004, 25 participants from Academia.
 16. Conducted a self-sponsored workshop on "Recycling and other Pavement Rehabilitation Methods", during February 8-10, 2005 at IIT Kanpur. A total of 38 persons from various parts of the country (from both Industry and academia) attended the workshop.
 17. Lohani, B. PWD Assam Engineers Course: Delivered lectures on Geoinformatics. Completed half of the video lecture series under NPTEL on Basic Surveying.
 18. R.K Ghosh, Workshop on wireless Networks and Mobile Computing, Kanpur August 14, 2004.
 19. Deepak Gupta organized a workshop titled 2nd Annual IIT Kanpur Hackers Workshop (IIT Hack 2005), March 2005.

20. T V Prabhakar, Software Architecture: Do and Describe, Bangalore, May 2005.
21. T V Prabhakar, Topics in Software Architecture, New Delhi, November 2005.
22. T V Prabhakar, Software Architecture, Infosys, Bangalore, June 2005.
23. Nandini Gupta, Theoretical and Experimental Investigation into an Artificial Tree Channel in High Voltage Polymeric Insulation, sponsored by DST under DST-SERC Fast Track program for Young Scientists.
24. Nandini Gupta, Experimental Investigation into the Mechanisms of Electrical Treeing in High Voltage Cable Insulation, sponsored by MHRD under R&D scheme.
25. Nandini Gupta, Modeling of the Gaseous Discharge in Stationary Plasma Thruster, sponsored by DIT, Ministry of Communication and Information Technology, New Delhi.
26. P.K. Kalra, Development of Independent Component Analysis Based Blind Source Separation Algorithms for Audio / Image Separation, sponsored by BESCOM, Bangalore.
27. P.K. Kalra, Development of Cost to Serve (CoS) MODEL for BESCOM, Bangalore, sponsored by CRISIL Limited Mumbai.
28. P.K. Kalra, Development of IT-enabled Trading system for NVVN and setting up of Power Exchange at National Level sponsored by CHIPS Raipur.
29. P.K. Kalra, Development of Application for Printing of MAPS, sponsored by MHRD.
30. P.K. Kalra, Modeling of Human Perception through Eye-Movement Matrices and Visual-Motor Control, sponsored by NBRC, Gurgaon.
31. P.K. Kalra, Development of Methodologies for Extracting Information from the Neuro-Informatics Data, sponsored by IISU, ISRO.
32. P.K. Kalra, Modeling, Classification and Fault Detection of Sensors using Intelligent Methods.
33. S. P. Das, A Utility Friendly Four Quadrant Induction Motor Drive System for Traction and Industrial Applications, sponsored by Department of Science and Technology, NewDelhi, 2002.
34. P. Sensarma, Custom Power and Improvement of Power Quality at Critical Load Centers in the Distribution Network, sponsored by Ministry of HRD, Govt. of India.
35. P. Sensarma, National Mission Project on Power Electronics Technology (a Nationwide effort of premier institutes to design, develop and deploy Power Electronics Technology), sponsored by Ministry of Communications and IT, Govt. of India.

36. S.C. Srivastava, Strategies for Promotion of Energy Efficient and Cleaner Technologies in the Power Sector, sponsored by AIT, Thailand.
37. S.C. Srivastava, Enhancement of Power Systems' performance using FACTS in competitive power market, sponsored by CPRI Bangalore, (MoP).
38. S.C. Srivastava, Assessment and Analysis of Electric Power Quality Problems using Artificial Intelligence and Advanced Digital Signal Processing Techniques, sponsored by DST, New Delhi.
39. G. C. Ray, A Multipurpose Talking Aid for the Blinds, sponsored by Ministry of Human Resource Development.
40. Animesh Biswas, Development of anisotropic ceramic dielectric resonator for miniature microwave circuit application, sponsored by DST, New Delhi.
41. P. Sensarma, Custom Power and Improvement of Power Quality at Critical Load Centers in the Distribution Network, sponsored by Ministry of HRD, Govt. of India.
42. P. Sensarma, National Mission Project on Power Electronics Technology (a nationwide effort of premier institutes to design, develop and deploy Power Electronics Technology), sponsored by, Ministry of Communications and IT, Govt. of India.
43. R.S. Anand, Evaluation of organo-fullerene Based material for photo sensing photovoltaic & electro luminescence properties, sponsored by DMSRDE (DRDO).
44. R.S. Anand, Integration of Silicon and Organic Semi conductors For Light Emission, sponsored by MHRD.
45. Joseph John, Design and Development of Indoor and Outdoor wireless links for high speed data communications, sponsored by MHRD project R&D project.
46. A Short-term QIP course on "Communication Skills for Engineers", sponsored by the AICTE, was conducted between 18th and 23rd of October 2004 at IIT Kanpur. The Course Coordinators were Prof. Lilavati Krishnan and Dr. T. Ravichandran (Department of HSS). Twenty-five teachers of various engineering colleges and institutes of technology all over the country participated in the course.
47. IME Faculty, Course on Materials Management for Indian Railway Officers at IIT Kanpur, November 2004.
48. Anoop Singh, five day short-course on "Challenges and Implementation Issues *post* Electricity Act 2003: Regulatory, Policy & Technical Solutions", April 10-14, 2004.

49. Anoop Singh, "Investment Opportunities for Power Sector in the North East - Mining the Electricity Act 2003" Energy Summit IV, 23rd –24th September 2004, Guwahati.
50. Anoop Singh, "An Assessment of Power Sector Regulation in India", SARI/Energy Regional Regulation Partnership Executive Meeting, July 19-21, 2004, Colombo, Sri Lanka.
51. Anoop Singh, "Economics of Energy Markets", Workshop on PDOE Module, Bangkok, June 9 – 12, 2004.
52. Anoop Singh, "Institutional Aspects of Electricity Trade in South Asian Region", Workshop on Energy Statistics and Analysis Requirements in Support of Regional Energy Trade Evaluation, Kathmandu, Nepal, May 31 – June 4 2004.
53. Anoop Singh, Workshop presentation at "Energy Statistics and Analysis" Workshop, January 6-7, 2005, New Delhi.
54. Veena Bansal, Evaluation, Rating and certification of Web pages, IIITM, Tiruvananthapuram, Kerala in May 2004.
55. Dr. A.K. Mallik, Conducted a course for Engineers of Lohia Starlinger Limited, Kanpur.
56. Dr. Avinash Kumar Agarwal, A one-week short course sponsored by Chattisgarh Government for engineering college teachers entitled "Alternative Fuels and advances in Engines" at Government Engineering College, Raipur from 16-20th October 2004.
57. Dr. Avinash Kumar Agarwal, A one-week short course sponsored by Quality Improvement Program for engineering college teachers and industry entitled "Alternative Fuels and Emission Control" to be held at IIT Kanpur from 24th-28th November 2004.
58. Dr.V.K. Jain, QIP Sponsored short term course on "Advanced Machining Processes", 18th to 23rd Oct. 2005, Kanpur. (No. of Participant: 26 from Engineering Institutes & 14 from Industries).
59. Dr.V.K.Jain, Institute of Reserch & Development and training (I.R.D.T.) sponsored short term course on "Advanced Machining processes ", 11th to 15th April'2005, Kanpur, (No. of participants : 11 from different polytechnic institutes).
60. D. Mazumdar: "Modelling in metals processing: concepys, theory and application"; offered to Industrial and R & D engineers (20) (February, 2005).
61. Bikramjit Basu: *Materials for High Temperature Applications (HIMAT-2005)*, 12-15th March, 2005.

62. B.K. Misra: *Modern Trends in Milling Practice* KIOCL, Kudremukh December 13-15, 2004 *Discrete Element Method for Particulate Systems*, I.I.T. Kanpur 22-24 April, 2005.
63. V. Ravishankar – NPTEL, CHIPS, KV.

**(G) PARTICIPATION IN HIGH LEVEL INDUSTRY ACADEMIA
INDUSTRY INTERACTION PROGRAMME DURING SUMMER**

1. Signed a MOU between IIT K- DST and Life care Innovation (Industry Partner) on Development of PLG Polymer for sustained drug delivery in nanoencapsulated Tuberculosis drug, Sanctioned amount 49 Lakhs.
2. Indo-German Nano-technology initiatives program: member of the committee appointed by DST, New Delhi to visit various German universities and international reputed institutes during April 19th to 30th, 2004, N. S. Gajbhiye.
3. Member, International Research & Training Graduate Program (IRTG) in nanoscience and nanotechnology in collaboration with Germany and some European countries, 2004, N. S. Gajbhiye.
4. Participated in International Conference on Bhopal Gas Tragedy and its Effects on Process Safety held at IIT Kanpur, Dec. 1-3, 2004, P.M. Prasad.
5. Attended the appreciation course on Parliamentary Processes and Procedures held at Bureau of Parliamentary Studies and Training, Lok Sabha Secretariat, New Delhi, Jan. 31-4 Feb. 2005, P.M. Prasad.
6. Participated as a resource person in the short-term course on Environmental Economics & Environmental Impact Assessment is being organized at IITK from May 18-24, 2004, P.M. Prasad.
7. Two day workshop on Methodology of Writing Reports, for secretaries of grassroots organizations working under Mahatma Gandhi Mission Scheme, August, 21 – 22, 2004, IIT Kanpur. The workshop was sponsored by Banwasi Seva Ashram, Sonabhadra, A. K. Sharma.
8. Short Term Course on “Environmental Economics & EIA”, 18-24 May, 2004, sponsored by CDTE/QIP, IIT Kanpur, Course Coordinator: B. Rath.
9. Convener, 12th International Planning History Society (IPHS- 2006) Conference to be held at New Delhi, India, December 11-14, 2006, B. Rath.
10. Consultancy support for The Ganges Radio/Educational Project: Independent Broadcasting Associates, Inc.USA, B. Rath.
11. Among the major ongoing projects Prof. B. Rath is conducting two studies: (a) SES Study for Ash Dyke Stage III of FGUTPP, NTPC Ltd., Unchahar, Raibareli, U.P., and (b) EIA of Proposed Mahanadi-Godavari River Link.

12. The department introduced five-year integrated programme in M.Sc. (Economics) in which admissions will be done through JEE. This will satisfy a long felt need of industry and financial institutions to have Economists with background in science and mathematics.
13. The department encouraged all Ph.D. students to attend at least one national level conference in their discipline and also provided travel support for this from its annual budget. As a result of this almost all Ph.D. students presented papers in national level conferences.

(H) ANY OTHER IMPORTANT ACTIVITY NOT SPECIFIED IN ABOVE COLUMNS

1. A project on the Development of Sensors for Detecting Hot-boxes and Hot-wheels has been received under the *Technology Mission on Railway Safety*. Hot-boxes and Hot-wheels are responsible for about 90% of derailments. Fast sensing systems for detecting and raising alarms on trains traveling at speeds in excess of 200kph are being developed. Principal Investigator: Dr. Sanjay Gupta.
2. Preparation and characterization of LiNbO₃ single crystal fibers by LHPG, Bansilal and K.V.Rao, CSIR, Rs.4.5 lakhs, 2003-05.
3. Development of Photonic Devices based on single crystal fibers, Bansilal and K.V.Rao, DIT, Rs.20.04 lakhs, 2004-07.
4. Development of a green laser based on single crystal fibers, Bansilal and K.V, Rao, DRDO, Rs.12.4 lakhs, 2005-07.
5. Organised one semester Certificate Program on Helicopter Technology for sponsored candidates from Industry and defence services, Venkatesan, C.
6. N.G.R.Iyengar, Coordinator, HAL Management Training Program, Aug 4, 2004-Nov. 29, 2004 at IIT Kanpur.
7. N.G.R.Iyengar, Convener, First International Congress on Computational Mechanics and Simulation, Dec. 9-12, 2004 at IIT Kanpur.
8. N.G.R.Iyengar, delivered Lectures in Helicopter Technology course for HAL and Defence Scientists and engineers, at IIT Kanpur, Jan 4- April, 2005.
9. R. Bandyopadhyaya, Joint Course Coordinator and Lecturer in the short term course on Colloids and Interfaces: Fundamentals and Research Challenges, IIT Kanpur, February 2005.
10. R. Bandyopadhyaya, Technical committee member of 3-rd Asian Aerosol Conference, Bombay December 2005.
11. R. Bandyopadhyaya, Refereed papers for following journals, J. Nanoscience and Nanotechnology, Surface Science, Nanotechnology.

12. G. Deo, Review of manuscripts of Chemical Engineering Journal, Catalysis Today, Journal of Catalysis, Catalysis Communication, etc.
13. G. Deo, One project-proposal submitted (DST).
14. G. Deo, M.Tech Thesis – (i) P. Singh, Structure-Reactivity Relationships for Titania Supported Chromium-Phosphorous-Oxide Catalysts: ODH of Propane, 2004. (ii) R.P. Singh, Structure-Reactivity Relationships for Titania Supported Vanadium-Phosphorous-Oxide Catalysts: ODH of Propane, 2004.
15. S. Garg, Recipient of DST awarded project under SERC scheme, "Decolourization and degradation of 4-ABS containing azo-dyes under microaerophilic conditions" as co-PI (with Mrs. Leela Iyengar, Department of Chemistry, IIT Kanpur). (SR/S3/CE/C38/2004-SERC Engg).
16. A. Ghatak, Gave lecture in SERC school on Colloids and interfaces held at IIT Kanpur (Sponsored by Department of Science and Technology), February 7 to 11, 2005.
17. S. K. Gupta, Member, Editorial Board, *Intl. J. Chem. Reaction Engineering* (e-journal), 2005- S. K. Gupta, Member, Editorial Board, *Journal of Polymer Engineering* (UK), 1995- .
18. A. Sharma, Council Member, Materials Research Society of India (MRSI), 2004-2007.
19. A. Sharma, Member, Research Councils of CGCRI, Kolkata and IICT, Hyderabad (2004-2006); both CSIR labs.
20. A. Sharma, Member, Scientific Advisory Committee (SAC) of the Ministry of Petroleum and Natural gas, Government of India, and Centre for High Technology, New Delhi (2003-2006).
21. Synthesis, Characterization of Monodisperse Self-assembly of Magnetic Nanostructures (Ni, Co, Fe, Ag, Pd, FePt, FeCrPt, CoPt, CoPd, CoCrPt, Ni-Ag and Fe-Ag). (CSIR-New Delhi), 2004 – 2006, N. S. Gajbhiye.
22. Novel Materials for Nanotechnology. (MHRD – New Delhi), Thrust Area Research Project, 2004-2006 (Rs. 30 - Lacs), N. S. Gajbhiye.
23. The 6th Chemical research society of India conference in Chemistry- Feb 6-8 2004, R Gurunath.
24. Emerging trends in organic Chemistry- October 2004, R Gurunath.
25. R Gurunath, Delivered Lectures in Chhatisgarh outreach program in the e-class room on biology.
26. Moorthy, J. N, coordinated a DST-PAC meeting on Organic Chemistry at IIT, Kanpur, 29th July, 2004 to 31st July, 2004.
27. Visiting Professor, Departament de Química, Universitat de Girona, Spain (September – October, 2004) (Host: Prof. A. Llobet), Mukherjee R. N.

28. Singapore-India Collaborative and Co-operative Chemistry Symposium – III, Department of Chemistry, Indian Institute of Technology Kanpur, Kanpur (December 16-17, 2004) (Chaired a Scientific Session), Mukherjee R. N.
29. Department representative on institute library committee 2003-2004, Veejendra K. Yadav.
30. As Convenor of NMR Facility (2003-2004 and 2004-2005), I look after the day-to-day functioning of the facility that encompasses three machines, 400 MHz, 80 MHz, and 60 MHz, Veejendra K. Yadav.
31. Das, A., Third International Symposium on New Technologies for Urban Safety of Mega Cities in Asia at Agra on October 18-19, 2004 (Organizing Secretary).
32. Das, A., One week QIP – Short course on Advances in Testing of Cement and Concrete, IIT Kanpur, February 2005 (Course coordinator).
33. Jain, A., Member, Technical Committee-Environmental Systems (2004-2007), International Association of Science and Technology for Development, IASTAD.
34. Jain, A., Member, Program Committee, Second Indian International Conference on Artificial Intelligence: IICAI2005, December 20-22, 2005, Pune, India.
35. Gupta, V.K., worked as Vice-President, Indian Society of Earthquake Technology (ISET) in the second year of this term.
36. Gupta, V.K., worked as Editor, ISET Journal of Earthquake Technology for the seventh consecutive year.
37. Gupta, V.K., continued to work as Associate Editor, ASCE Journal of Structural Engineering.
38. Mohapatra, P.K., organized summer camp 2004 (June 8 to July 2).
39. Rai, D.C., Workshop organized, Workshop on Capacity Building in Earthquake Engineering Type Sponsored by Govt. of NCT Delhi Dates June 23-26, 2004 Number attended ~150 engineers and professionals.
40. Rai, D.C. Workshop on Earthquake Engineering Issues and Scrutiny of Drawings Type Sponsored by Babbie India Limited, Ahmedabad Dates 13-14 Sept., 2004 Number attended ~30 engineers.
41. Tripathi, S.N., convener (Technical) (IASTA Meeting and International Conference on Aerosols, Clouds, and Indian Monsoon, IITK 15-17 November, 2004).
42. Tripathi, S.N., Member, Technical Committee, Asian Aerosol Conference, Mumbai, December, 2005
43. Tripathi, S.N., Edited IASTA Conference Proceedings held in IITK (November 2004).

44. Lohani, B., Consultant: KESCO, Kanpur, Reviewer: JISRS and IJG.
45. Pankaj Jalote, "Performance analysis of software architectures", Microsoft Corporation, \$30K.
46. Pankaj Jalote, "Software checking through static and dynamic analysis", Microsoft, \$30K.
47. Dheeraj Sanghi, Development of Intrusion Detection System (Co-PI) Sponsored by Army Technology Board, Rs.20 lakhs. October, 2004.
48. Dheeraj Sanghi, Recommendations for Increasing Internet Penetration in India Consultancy Project from TRAI, New Delhi, Rs. 2 lakhs December, 2004.
49. Harish Karnick, MLA, DIT has funded the project 'A Portable Model of Primary Healthcare Delivery' for an amount of Rs.102.924 Lakhs.
50. Sanjeev K Aggarwal, Tools for Computational Grid, Sun Microsystems, US \$ 40000, Dec 2004.
51. Sanjeev K Aggarwal, Equipment grant for setting up a Grid, of Sun Workstations, US \$ 90000, Sun Microsystems, 2005.
52. R.K Ghosh, Program Chair for ICDCIT 2004.
53. Phalguni Gupta, ACM International Collegiate Programming Contest (Asia Region- Kanpur Site) held at Kanpur in December 2004.
54. Ajai Jain, V Honorary, IETE Member, Editorial Board of the Journal on Science and Technology, ICFAI University.
55. Sharma, R.R.K., Referee for OPSEARCH, INDIA, 2004-2005.
56. Sanjeev Swami, Reviewer for Marketing Science, Management Science, Annals of Operations Research.
57. Veena Bansal, Reviewer for IEEE Transactions on Engineering Management
58. Jayanta Chatterjee, Reviewer of IIMB Management Review, India.
59. Jayanta Chatterjee, Journal of Information and Knowledge management (JIKM), USA.
60. Jayanta Chatterjee, People, knowledge and Technology, Ed.B.Trezzini & P.Lambe, Straits Knowledge Society, Singapore.
61. Sharma, R.R.K., Chairman of various technical sessions at the 37 th annual convention of "Operational Research Society of India: Vision 2020: The Strategic Role of Operational Research", held at IIM Ahmedabad, INDIA, Jan 8-11, 2005.
62. Mittal, A.K., Chairman of various technical sessions at the 37 the annual convention of "Operational Research Society of India: Vision 2020: The Strategic Role of Operational Research", held at IIM Ahmedabad, INDIA, Jan 8-11, 2005.

63. Mittal, AK, 37th Annual Convention of ORSI Jan 8-11, 2005 Ahemdabad (Invited Paper).
64. Mittal, AK, ICIL 2005 14-18 February 2005 Montevideo Uruguay (Contributed Paper).
65. Mittal, AK, QCFI Kanpur chapter Convention October1, 2004 Kanpur (Chief Judge).
66. Mittal, AK, National convention of Quality Circle Dec27-28 2004 Mumbai India (Judge).
67. Veena Bansal, Reviewed book on MIS for Tata McGraw Hill Ltd.
68. Veena Bansal, Reviewed book for Oxford University Press on Pattern Recognition.
69. Rahul Varman, Book Review, Examining the origins and nature of corporations. Organizing America: Wealth, power, and the origins of corporate capitalism, Charles Perrow Princeton University Press, Princeton and Oxford, 2002. Indian Journal of Labour Economics, forthcoming, 2005.
70. Dr. A.K. Mallik Delivered 28 Lectures for NPTEL Project.
71. Dr. N.Venkata Reddy, Modernization of TA201N - Introduction to Manufacturing Processes Laboratory (Completed, Institute Core Laboratory, approximate expenditure: Rs 150 lakhs).
72. S. Bhattacharjee – submitted a proposal “Intense plasma sources for Terahertz radiation” to CSIR requesting Rs. 12 lacs as funds.
73. Anjan K. Gupta – attended Indian Academy of Sciences November meeting in BHU, Varanasi.
74. D. Chowdhury – Member, Physical Sciences Research Committee, CSIR, 2004-2007.
75. D. Chowdhury – Member, National Organizing Committee, STATPHYS 22: International Conference of International Union of Pure and Applied Physics on Statistical Physics, Bangalore, July 2004.
76. D. Chowdhury – Member, Organizing Committee, International Conference on Complex Networks: STATPHYS Kolkata V, a Satellite meeting of STATPHYS22, Kolkata, June 2004.
77. D. Chowdhury – Member, Organizing Committee, International Conference on Pattern Formation in Nonequilibrium Systems, a Satellite meeting of STATPHYS22, Kolkata, July 2004.
78. D. Chowdhury – Member, Advisory Committee, International Conference on Disordered, Complex and Biological Systems, a Satellite meeting of STATPHYS22, Varanasi, July 2004.
79. S. Sivaprakasam - Visiting Fellow, University of Wales, Bangor, UK, during December 2004.

80. R.K. Thareja, Member Advisory Committee, NLS-2004.
81. R.K. Thareja, Member, Advisory Committee, OSI 2005.
82. R.K. Thareja, Member Advisory Committee, 2nd Int Conf on Frontiers of Plasma Physics and Technology, Feb. 21-25, Goa.
83. R.K. Thareja – His student, Mr. A.K. Sharma, received Best PhD thesis award by Indian laser Association.
84. R.K. Thareja – Member, Program Advisory Committee (DST).
85. V.V. Sreedhar - Guest Faculty: For the course on Instanton Physics given by Prof. Rajesh Gopakumar (HRI) in the XX SERC School on Theoretical High Energy Physics, 4-24 Dec. 2004, IITK.
86. G. Sengupta - Member Organization for International String Theory Workshop ISM04 at Khajuraho, Dec 2004.