

Publications and Outreach Activities

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SEMINAR PRESENTED

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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.
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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-phase 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-maching 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. Ramakrsihna.
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 Babcie 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.