

Books and Book-Chapters Published

CENTRE FOR LASER TECHNOLOGY

1. Second harmonic generation in nanocrystalline ZnO films in Perspectives in Modern Optics and Optical Instrumentation, Editors J Joseph, A Sharma, and V K Rastogi published by Anita Publication, New Delhi, R. K. Thareja.
2. Synchronisation of chaos, chapter in the book, External feedback effects on semiconductor lasers, (D. Kane and K. A. Shore (eds)), John Wiley and Sons, 2004, S. Sivaprakasam and C. Masoller.

DEPARTMENT OF AEROSPACE ENGINEERING

1. Developed module 1 (of three lectures) for NPTEL, on Finite Elements Methods being currently aired on Eklavya Channel, C.S. Upadhyay.
2. Developing the web-based course on "Finite Element Methods" along with Prof. P.M. Dikshit (ME), C.S. Upadhyay.

DEPARTMENT OF CHEMICAL ENGINEERING

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2. Mathematical Methods in Chemical and Environmental Engineering, Thomson Learning, Singapore, 2004, 689 pages, A. K. Ray and S. K. Gupta.
3. Fundamental of Polymer Engineering, Marcel Dekker, New York, 2003, A. Kumar and R.K. Gupta.
4. An Introduction to Thermodynamics;, Universities Press, Hyderabad, 2003, Y.V.C. Rao.
5. Engineering Thermodynamics Through Examples, Universities Press, Hyderabad, 2003, Y.V.C. Rao.
6. Mathematical Methods in Chemical and Environmental Engineering, Thomson Learning, Singapore, 2004, 689 pages, A. K. Ray and S. K. Gupta.

7. Fundamental of Polymer Engineering, Marcel Dekker, New York, 2003, A. Kumar and R.K. Gupta.
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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DEPARTMENT OF ELECTRICAL ENGINEERING

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2. Lecture Notes on Digital Switching – Electronic Book distributed via Web, Y.N. Singh.
3. Physics and Technology of High-K Gate Dielectrics -II, PV 2003-22; The Electrochemical Society Proceedings Series, Pennington, NJ, 2003, S. Kar, M. Houssa, H. Iwai, D. Landheer, M. Morais, R. Singh, and D. Misra, Editors.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

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4. Ancient Indian and Modern Generative Linguistics: Some Comparative Observations, O.N. Koul and Imtiaz Hasnain (eds.) *Linguistics: Theoretical and Applied* (A festschrift for Ruqaiya Hasan), Indian Institute of Language Studies, Delhi, 2004, B. N. Patnaik.
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6. Attitudes, Social Cognition and Justice, J. Pandey (ed.), *Psychology in India revisited – Development in the Discipline*, Volume 3, *Applied Social and Organizational Psychology*, Sage Publications, New Delhi, 2004, Lila Krishnan.
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DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

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2. Information Systems for Managers, School of Management Studies, Indira Gandhi National Open University, 2004, V. Bansal.
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DEPARTMENT OF MATHEMATICS

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DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

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DEPARTMENT OF MECHANICAL ENGINEERING

1. Computational Fluid Flow and Heat Transfer, published as a part of the IIT Kanpur Series (580 pages) by Narosa Publishers, N. Delhi, ISBN: second edition;; [International edition distributed by Alpha Science, London], July 2003, K. Muralidhar and T. Sundararajan, Editors.
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DEPARTMENT OF PHYSICS

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3. Oscillating exchange coupling in Fe/Nb multilayers, In *Disordered Materials*, Editors: S. Prakash, N. Goyal and K. Tripathi, Narosa Publishing House, New Delhi, 2003, N.N. Shukla and R. Prasad.
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1. Emission spectroscopy of laser ablated Si plasma related to nanoparticle formation, *Appl. Surf. Sci.*, 222, 2003, 382, V. Narayanan and R. K. Thareja.
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 13. Buoyancy-driven convection in superimposed fluid layers in an octagonal cavity, accepted for publication in International Journal of Thermal Sciences, 2004, Sunil Punjabi, K. Muralidhar and P.K. Panigrahi.
 14. Imaging of a convective field in a rectangular cavity using interferometry, schlieren and shadowgraph, accepted for publication in Optics and Lasers in Engineering, 2004, A. Srivastava, A. Phukan, P.K. Panigrahi and K. Muralidhar.
 15. Comparison of interferometry, schlieren and shadowgraph for visualizing convection during the growth of a KDP crystal from its aqueous solution, accepted for publication in Journal of Crystal Growth, 2004, Srivastava, K. Muralidhar and P.K. Panigrahi.
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88. Laser Induced degradation Studied of PPV and CN-PPV Thin Films using Photoluminescence, Proceedings International conference on materials for advanced technologies & IUMRS-International conference in Asia 2003 December 7-12, Singapore, D. Ghosh, G.S.Samal, A.K.Biswas, Y.N.Mohapatra.
89. Internal Electric Field and Contact Potential in Polymer Light Emitting diode structure studied by Electroabsorption Spectroscopy, Proceedings Twelfth International Workshop on The Physics of Semiconductor Devices, Indian Institute

- of technology Madars, Chennai, India. December 16-20, 2003, G.S.Samal, Subhadip Mitra, Rahul Dubey, and Y.N.Mohapatra.
90. DLTS studies of localized states in organic – inorganic semiconductor heterostructures, Proceedings Twelfth International Workshop on The Physics of Semiconductor Devices, Indian Institute of technology Madars, Chennai, India. December 16-20, 2003, Samarendra P. Singh, Y. N. Mohapatra, Q. Mohammad, and S. S. Manoharan. Awarded the Best Poster Prize at the Conference.
 91. Metastability and Non-Debye Relaxation Phenomena due to defect clusters and disorder in semiconductors, Proceedings of ICCES 2003, Advances in Computational and Experimental Engineering and Sciences, 2003, Y.N. Mohapatra, Samarendra P. Singh, P.K. Giri and Vineet Rao.
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 95. Mossbauer and positron annihilation studies in plastically deformed $\text{Fe}_{72-x}\text{Al}_{28}\text{Ti}_x$ $x=0,2,9$ alloys, J. Mag. Magn. Mater., 263, 307, 2003, B. Pandey, P.M.G. Nambissan, S. Suwas and H.C. Verma.
 96. Systematics of Mossbauer absorption areas in ordinary chondrites and applications to a newly fallen meteorite in Jodhpur, India, Meteoritics and Planetary Science, 38, 963-967, 2003, H.C. Verma, Kavi Jee and R.P. Tripathi.
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100. Identification of positron trapping sites in nanocrystalline ZnFe_2O_4 by coincidence Doppler broadening measurements, *Mater. Sci. Forum*, 445-446, 162-164, 2004, P.M.G. Nambissan, C. Upadhyay and H.C. Verma.
101. Perpendicular-to-plane magnetoresistance in $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3/\text{LaNiO}_3$ superlattices: The effects of interfacial disorder and spin diffusion on charge transport, *Mod. Phys. Lett. B* 17, 1517-1526, 2003, P. Padhan and R.C. Budhani.
102. Miniature Hall sensor based ac susceptometer for measurements of vortex and superfluid dynamics in superconducting films, *Rev. Sci. Instru.* 751: 141-145, 2004, K. Senapati, S. Chakrabarty S, L.K. Sahoo and R.C. Budhani.
103. Overdamped interlayer exchange coupling and disorder-dominated magnetoresistance in $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3/\text{LaNiO}_3$ superlattices, *Europhys. Lett.* 635: 771-777, 2003, P. Padhan, R.C. Budhani and R.P.S.M. Lobo.
104. Spherical perfect lens: Solutions of Maxwell's equations for spherical geometry, *Phys. Rev. B* 69, Art. No. 115115, 2004, S.A. Ramakrishna and J.B. Pendry.
105. Ferromagnetism in a dilute magnetic semiconductor: Generalized RKKY interaction and spin wave excitations, *Phys. Rev. B* 68 23, Art. No. 235208, 2003, A. Singh, A. Datta and S.K. Das.
106. To scale or not to scale: self-capacitance, Hubbard U and quantum dot size? *Indian J. Phys. PT-A*, 78A1, 61-65, 2004, V.A. Singh, R.K. Pandey and M.K. Harbola.
107. Phase space description of the production of quark gluon plasma in heavy-ion collisions, *Pramana – J. Physics* 61, 1045, 2003, A. Jain and V. Ravishankar.
108. Production mechanism of quark-gluon plasma in heavy-ion collisions, A. Jain and V. Ravishankar, *Phys. Rev. Lett.* 91, Art. No. 112301, 2003,
109. Special issue: Proceedings of the Workshop on Quantum Chromodynamics QCD 2002, *Pramana – J. Phys.* 61, 785, 2003, P. Jain, S.D. Joglekar and V. Ravishankar.

Conferences Attended Outside IIT Kanpur

CENTRE FOR LASER TECHNOLOGY

1. Nullified time-of-flight lead-lag in synchronization of chaotic external cavity laser diodes', National Laser Symposium, Dec. 22-24, IIT – Kharagpur, S. Sivaprakasam, J.Paul and K.A.Shore.

DEPARTMENT OF AEROSPACE ENGINEERING

1. 27th Indian Social Science Congress, I.I.T. Kharagpur: presented a Contributed paper, Dec. 03-07, 2003, Ghosh Kunal.
2. Global Convention on Peace and Non-Violence, Organised by Gandhi Smriti & Darshan Samiti, New Delhi, at the invitation/hospitality of the Samiti, Jan. 31-Feb.01, 2004, Ghosh Kunal.
3. 17th Canadian Congress of Applied Mechanics, CANCAM-03, The Univ. of Calgary, Alberta, Canada presented a contributed paper, June 1-6, 2003, Ghosh Kunal,
4. SEM Conference Charlotte, Baorth Carolina, USA, presented two contributed papers, June 2-4, 2003, Iyengar N.G.R.
5. IMPLAST 2003, 8th International Symposium on Plasticity and Impact, Mechanics, Vigyan Bhawan, presented an invited Paper and also Chaired a session, March 16-19, 2003, Iyengar N.G.R.
6. ISAMPE National Conference on Composites and National Seminar on Aerospace Structures, Bangalore. Presented a technical Paper and Chaired a session, Sept.5-6, 2003, N.G.R.Iyengar
7. 11-th AIAA/ASME/AHS Adaptive Structures Conference, Norfolk, Virginia, USA, April 2003, C.Venkatesan.
8. Invited talk: 15-th Annual General Meeting of Materials Research Society of India, BHU, Feb. 2004, C.Venkatesan.
9. ASME/JSME Joints Fluids Engg., Conference, Honolulu, Hawaii, USA, July 2003, R.K. Sullerey.
10. 30th National Conf. On Fluid Mechanics & Fluid Power (FMFP), National Institute of Technology Suratkal, India Dec., 11-13 2003, R.K. Sullerey.

11. 6th Annual CFD Symposium of CFD Division of the Aeronautical Society of India, Bangalore, India, August, 11-13, 2003, S.Mittal.
12. International Indian-Russian Workshop, High Performance Computing in Science and Engineering, HPC SE 2003, Moscow, Russia, 2003, S.Mittal.
13. Seventh U.S. National Congress on Computational Mechanics, Albuquerque, New Mexico, USA, 2003, S.Mittal.
14. Academic Summit, Microsoft Research, Bangalore, India, 2004, S.Mittal.
15. High Performance Computing, Cornell Theory Center, Cornell, USA. Jan.28-29, 2004, S.Mittal.
16. 18th National Conference on IC Engines & Combustion, Chairing a session & Contributing two papers, December, 17-19, 2003, D. P. Mishra.

DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING

1. Attended the sixth national symposium in Chemistry at IIT Kanpur Feb 6-8, 2004, R. Gurunath.
2. Attended the symposium on “Molecules, Machines and Networks” organized by the National Centre for Biological Sciences (NCBS), Bangalore from Jan 2004 5th to 9th, R. Sankararamakrishnan.
3. Attended short-term training programme on Bioinformatics, organized by Institute of Himalayan Bioresource Technology, Palampur, H.P. June 2003, B. Prakash.
4. National Symposium on Expanding Horizons, New Delhi, organized by Delhi University in Oct. 2003, B. Prakash.
5. CSIR Expert committee meeting scheduled on 14th & 15th May for interviewing SRFs/RAs invited by Rajesh Luthra, Head, H.R.D. Group, Council of Scientific & Industrial Research, CSIR Complex, Library Avenue, Pusa, New Delhi 110 012, B. Prakash.
6. Poster presented at the Annual meeting of the International Senior Research, Fellows organized by the Wellcome Trust at NCBS. Date: March 25-28, 2004, K. Subramaniam.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Overview of membrane Technology for Effluent Treatment, Indo-French Seminar of Emerging Technologies for water and waste water management, 9-12 February, 2004 at India Habitat Centre, New Delhi, P.K. Bhattacharya.
2. Reuse of FDM Components by Solution-Casting Technique, International Symposium on Rapid-Prototyping & Tooling, HAL, Bangalore, 6-7 June, 2003, K. Siva Prasad, S.V. Satyanarayana, P.K. Bhattacharya and S.G. Dhande.
3. Workshop on Biodiesel Fuels, SuTRA, IISc Bangalore (funded by DST, Government of India), August 30-31, 2003, Presented contributed paper, S. Garg.
4. 'Process Safety and Industrial Explosion Protection', Nurnberg, Germany, March 16 – 18, 2004. Presented two invited papers, J.P. Gupta.
5. Chaired one session: IChE Annual Meeting (Chemcon 2003), RRL Bhubaneswar, Dec 2003, S.K. Gupta.
6. National Conference on Carbon 2003, Nov. 20-21, 2003, DMSRDE, Kanpur, D. Kunzru.
7. CHEMCON-2003, Bhubaneswar, Dec. 19-22, 2003, Chair of one session, contributed paper, D. Kunzru.
8. 53rd Canadian Chemical Engineering and PRES'03 Conference, Hamilton, Ontario, Canada, October 26-29, 2003. Presented paper entitled Process Intensification in a Trickle-bed Reactor, V. Verma, D.P. Rao and M. S. Rao.
9. CHEMCON-2003, Bhubaneswar, Dec. 19-22, 2003, presented paper entitled Effect of Ga, Al and Cr on Si-supported V-MgO Catalysis during oxidative dehydrogenation of propane by B. Ravi Kumar and M. S. Rao.
10. Self-Organized patterning of soft materials, National Seminar on Science and Technology of Nanomaterials, Central Glass and Ceramic Research Institute, Kolkata, 2003, A. Sharma.
11. Self-organization in thin films of soft materials, Symposium on Some Novel Trends in Chemistry Teaching and Inorganic Chemistry Research, University of Rajasthan, Jaipur, 2003, A. Sharma.
12. Self-organized patterns in confined films, JSPS-DST Symposium on Surfaces and Interfaces for Nanostructured Materials, University of Tokyo, 2003, A. Sharma.

13. Self-organized patterns in thin soft films, Symposium on Surface Phenomena and Free Surface Flows, Tel Aviv, Israel, 2003, A. Sharma.
14. Self-organized patterns in thin soft films, International Conference on Nano Science and Technology, ICONSAT 2003, Kolkata, 2003, A. Sharma.
15. Adhesion and Debonding of elastic films: Patterns, forces and metastability, India-Japan Workshop on Surfaces and Interfaces, Saha Institute, Kolkata, 2003, A. Sharma.
16. Self-organization in Soft Nanosystems, 91st Indian Science Congress, Chandigarh, 2004, A. Sharma.
17. Indo-US Workshop on Futuristic Manufacturing, IIT Kanpur, 2004, A. Sharma.
18. Indo-US Workshop on Nanoscale Materials, Puri, April 2004, A. Sharma.

DEPARTMENT OF CHEMISTRY

1. Delivered an invited lecture at the meeting 'Physics at the interface of Chemistry and Biology', held at S N Bose Centre, Kolkata, on December 08, 2003, A. Chandra.

DEPARTMENT OF CIVIL ENGINEERING

1. The 2003 American Society of Mechanical Engineers Pressure Vessels and Piping Conference, Attended, Cleveland, Ohio, USA, July 2003, Chakrabarti, S.K
2. The 19th International Conference on Solid Waste Technology and Management, Philadelphia, U.S.A., Session Chairman and paper presentation by Chandra, S.
3. Estimation of parameters in groundwater using Artificial Neural Networks, Proceedings, International Conference on: Water and Environment, Planning, Development, Utilization, Conservation and Management, Bhopal, December 15-18, 2003, Singh, R.M., Datta B., and Jain, A.
4. First Indian International Conference on Artificial Intelligence: IICAI03, December 18-20, 2003, Hyderabad, India, Presented Two Contributed Papers, Jain, A.
5. One Day Workshop on Bridge Scour, River Training, and Protection Works (WOBSRIT-PROW-03), Organized by IIT Roorkee, October 11, 2003, New Delhi, India, Jain, A.

6. River Basin Management 2003: Second Intl Conf. on River Basin Management, 28-30 April 2003, Las Palmas, Gran Canaria, Spain, Presented Two Contributed Papers, Jain, A.
7. Workshop on Seismic Risk Management for Countries of the Asia Pacific Region, Bangkok, December 2003, World Seismic Safety Initiative, Jain, S.K.
8. Ad Hoc Experts' Group Meeting on Earthquake Safety in Schools, Organization for Economic Cooperation and Development (OECD), Paris (France), February 2004, Jain, S.K.
9. Indo German Workshop on Earthquake Engineering, IIT Madras, 15 – 16 February 2004, Jain, S.K and Murty C.V.R.
10. Map India – 2004, Taj Palace New Delhi, 28-30 January 2004, paper presentation by Lohani B.
11. National Workshop on Earthquake Risk Reduction – The Gujarat Experience, 31 January 2004, Ahmedabad, Murty, C.V.R.
12. Geotechnical Engg. For Infrastructure Development, IGC-2003, Roorkee, Dec.18-20, 2003, Patra N.R.
13. 3rd Latin American Congress of Sedimentology, June 8 - 11, 2003, Belém - Pará – Brazil, Sinha Rajiv.
14. XVI INQUA Congress, July 23-30, 2003, Reno, USA, Sinha Rajiv.
15. Panelist for Group Discussion Indo-French Seminar on Emerging Trends in Water and Wastewater Management, New Delhi, 12 Feb., 2004, Raymahashay, B.C.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. High Performance Computing in Science and Engg, Moscow, Russia, June 2003, Contributed Paper and Session Chair, S.K Aggarwal.
2. Sun HPC Consortium Forum on High Performance Computing, Heidelberg, Germany, June 2003, S.K Aggarwal.
3. International Supercomputing Conference, Heidelberg, Germany, June 2003, S.K Aggarwal.
4. Microsoft Faculty Research Summit, Seattle, USA, July 2003, S.K Aggarwal.

5. Intel Asia Academic Forum, Shenzhen, China, Oct 2003, S.K Aggarwal.
6. Software Engineering 2004, Innsbruck, Austria, Feb 2004, Contributed Paper and Session Chair, S.K Aggarwal.
7. HP Consortium for Advanced Scientific and Technical Computing, Brisbane, Australia, March 2004, S.K Aggarwal.
8. Foundations of Software Technology and Theoretical Computer Science, IIT Bombay, December 2003, Attended, S.Biswas.
9. CIT 2003, Bhubaneswar, Dec 2003, Contributed papers, R.K Ghosh.
10. International Workshop on Mobile Commerce, Bhubaneswar, Dec 2003, Contributed presentations, R.K Ghosh.
11. IWDC 2003, Kolkata, Dec 2003, Contributed paper, R.K Ghosh.
12. IX Summit on Machine Translation, New Orleans, Sep 2003, Attended, Ajai Jain.
13. Indo-German Workshop on Language Technology, Chennai, Feb 2003, Attended, Ajai Jain.
14. ArchCon Satyam Annual Conference on Architecture, June 2003, Conference Chair, T.V Prabhakar.
15. Asian'03, Bombay, Dec 2003, Attended, Anil Seth.
16. FSTTCS 2003, IIT Bombay, Dec 2003, Attended, Anil Seth.
17. TECS Week, TRDDC Pune, Jan 2004, Attended, Anil Seth.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. National Power Electronics Conference, NPEC, Mumbai, October, 2003. Chaired a Session, P. Sensarma.
2. Signal Processing Approach to Brain and Consciousness (invited paper), International Conf. On Intelligent Signal Proc. And Robotics, Indian Institute of Information Technology, Allahabad, Feb. 2003, 2004, G.C. Ray and Gautam Das.
3. International Workshop on Physics of Semiconductor Devices 2003, IIT Madras, Chennai, Dec. 16-20, 2003, R.S. Anand.

4. Int. Conference on Electric Supply Industry in Transition: Issues and Prospects for Asia, Asian Institute of Technology, Thailand, 14-16 January 2004, S.C. Srivastava.
5. 'POWERFEST 2003' conference at NIT Kurukshetra during 28-29 November 2003, S.C. Srivastava.
6. International Conference on Advanced Pattern Recognition, ICAPR-03, ISI, Calcutta, 10-13, December, Contributed one Paper, Laxmidhar Behera.
7. Indian International Conference on Artificial Intelligence, IICAI-03, Hyderabad, 18-20, December, Contributed one Paper, Laxmidhar Behera.
8. International Conference on Information Technology, CIT-03, Bhubaneswar, 21-24, December, Contributed one paper and delivered an invited talk, Laxmidhar Behera.
9. International Conference on Intelligent Sensors and Information Processing, ICISIP-04, Chennai, 4-7 January, Contributed two papers and Chaired one session, Laxmidhar Behera.
10. International Conference on Intelligent Signal Processing and Robotics, ISPR-04, IIT, Allahabad, 20-23 February, Invited Lecture, Laxmidhar Behera.
11. Attended IEEE Asia-Pacific Region-10 Conference TENCON, Bangalore, October 2003. He chaired a session in the conference, A. Ghosh.
12. Attended 27th National Systems Conference (NSC-2003), IIT Kharagpur, December 2003. He chaired two sessions in the conference, A. Ghosh.
13. Presented contributed paper at NCC'04, IISc Bangalore, K. Vasudevan.
14. Attended National Power Electronics Conference (NPEC), IIT Bombay 17-18 Oct. 2003, S.P. Das.
15. Chaired the technical session on Resonant Converters in National Power Electronics Conference (NPEC 2003), Oct. 16-17 2003, IIT Bombay, S.P. Das.
16. Presented a contributed paper A Novel Soft-Switching Quasi-Resonant Inverter for Variable Power Factor Load, S.P. Das.
17. Dissemination workshop on GHG mitigation, May 9, 2003, New Delhi, Invited in Discussion, S.N. Singh.
18. National Workshop on Custom Power Devices, 13th June 2003, Invited in Discussion, S.N. Singh.

19. International Conference on Intelligent system Application in Power Systems (ISAP03) Greece, 31st August- 3rd September 2003, Contributed paper, S.N. Singh.
20. National Conference on Modern aspect of FACTS and its Applications at Coimbatore, August 29-30, 2003, Keynote speaker, S.N. Singh.
21. The Second International Symposium on High Dielectric Constant Materials: Materials Science, Processing, Manufacturing, and Reliability Issues', Orlando, Florida, 12-16 Oct 2003, Organising Chair, SN Singh.
22. The Twelfth International Workshop on the Physics of Semiconductor Devices, Chennai, 16-20 Dec 2003, Attended, S. Iyer and RS Anand.
23. Second International Conference on Optical Communications & Networks, (ICO CN 2003) Bangalore, India, October 20-22, 2003, Attended, Joseph John
24. The Workshop on Modelling of Power Devices with PSPICE, CPRI, Bangalore, June 2003, Attended, Nandini Gupta.
25. Presented papers in a conference on Optical Information Systems, organized by SPIE in San Diego, CA, USA in Aug. 2003, Chaired one session in this conference, Anjan K. Ghosh.
26. Presented invited paper in National Symposium on Engineering Optics in Meerut, Apr 2003, Chaired one session in this conference, Anjan K. Ghosh.
27. The Tenth National Conference on Communications, Jan 30- Feb. 2, 2004, IISc, Bangalore, Chaired a session, A.K. Chaturvedi.
28. Presented contributed paper in Engineering and Technology Conference, EnTech 2003, held in Kuching, Malaysia, July 31-Aug 2, 2003, S. Qureshi.
29. IEEE Power Engineering Society General Meeting, Toronto, Ontario, Canada, July 13-17, 2003 and contributed paper Novel Software Architecture for Power Distribution Automation, Attended, R.P. Gupta.
30. Workshop on Demand Side Management and Distribution Automation, Asian Institute of Technology, Bangkok, Thailand, August 20-22, 2003, Attended, R.P. Gupta.
31. The International Conference on Systemics, Cybernetics and Informatics (ICSCI-2004), Pentagram Research Center Pvt. Ltd., Hyderabad, India, February 12-15,

2004. and Chaired a Tech. Session and Contributed Paper: Substation Automation Communication Protocol, Attended, R.P. Gupta.
32. Workshop on Distribution System Upgrades and Modernization, Center for Management Education, Administrative Staff College of India (ASCI), Hyderabad, India, February 16-20, 2004, Attended, R.P. Gupta.
 33. National Workshop on Communication Protocol for Power System Automation, Central Power Research Institute, Bangalore, India, January 22-23, 2004. Invited Paper: A Comparative Study of IEC61850 Communication Protocol with DNP3.0 and UCA 2.0, Attended, R.P. Gupta.
 34. The Seminar on Power System Data Repository and Load Research, Central Power Research Institute, Bangalore, India, November 20-21, 2003 and Invited Papers: Development of Power Distribution Automation System Web Based Monitoring of Power Distribution System, Attended, R.P. Gupta.
 35. Workshop on Development of Strategy for a Model 33 kV Substation at Institute of Engineering and Technology, Lucknow, India, September 5, 2003. Invited Lecture: IT Solution in Power Distribution Sector, Attended, R.P. Gupta.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. English as Second Language. Session Chairperson. Teaching English through Technology, 35 Annual Conference of ELTAI and British Council, Hall of Guinness, Anna University, Chennai, 4-6 P.M., February 6, 2004, G. Neelakantan.
2. Teaching English to Disadvantaged Learners at IIT Kanpur 35 Annual Conference of ELTAI, Anna University, Chennai, 9-10 A.M., February 7, 2004, G. Neelakantan.
3. Re-Visioning Science, Re-Thinking Positivism: The Politics of Gender in Indian English Science Fiction. International Conference on Women & Science, Organised by NISTADS, New Delhi, March 8- 10, 2004, Suchitra Mathur.
4. Caught between the Goddess and the Cyborg: Third World Women and the Politics of Science in Indian English Science Fiction, presented at the Utopia & Dystopia Seminar, Organized by the Department of English, Jadavpur University, March 24-27, 2004, Suchitra Mathur.
5. Perspectives on Health, Illness and Well being: An Agenda for Future Research, National Seminar on Dimensions of Health, Centre for Behavioural and Cognitive Sciences, Allahabad University, Allahabad, April 10- 12, 2003, A. K. Sharma.

6. Health and Illness Among Tribes: A Quick Survey of Two Blocks of District Raigarh, Regional Conference of Indian Association for the Study of Population (IASP), Sponsored by United Nations Population Fund, Population Research Centre, Department of Economics, Lucknow University, November 13- 14, 2003, A. K. Sharma and Rita Singh.
7. Indian Systems of Medicine: Commodification of Health and Marginalization of Tradition, National conference on Traditional Knowledge Systems of India, January 9-11, 2004, Department of Humanities and Social Sciences, IIT Kharagpur, A. K. Sharma.
8. Chaired Sessions on Indian Systems of Medicine and Pharmacology-4, and Philosophy of Traditional Knowledge Systems-1, National Conference on Traditional Knowledge Systems of India, January 9-11, 2004, Department of Humanities and Social Sciences, IIT Kharagpur, A. K. Sharma.
9. Chaired Session on Socio-Political Dimensions and Indian Youth, National Symposium on Construction and Reconstruction of Indian Youth, Sri Jai Narain Snatkottar Mahavidyalaya, Lucknow, January 27, 2004, A. K. Sharma.
10. Triple Burden on Women in Science at the Reputed Institutes of Higher Education in Science and Technology, National Seminar on Women in Science: Is the Glass Ceiling Disappearing? March 8- 10, 2004, NISTDS, New Delhi, Namrata Gupta and A. K. Sharma.
11. Studying Globalization in Sociology: Some Issues, National Conference on Social Change in Global India, Ethnographic and Folk Culture Society, NEDA Complex Lucknow, March 12- 14, 2004, A. K. Sharma.
12. Population and Development: Participatory Perspective, National Seminar on Socio-economic Development and Resource Dynamics in India: Implications for Human Resource Development, Department of Social Work, Lucknow University, March 19- 20, 2004, A. K. Sharma.
13. Participated in discussion on Rapid Evaluation of ISRHHD and SAY Schemes- Approval of Tabulation Plan, Ministry of Rural Development, Department of Rural Development, Krishi Bhavan, New Delhi, November 6, 2003, A. K. Sharma
14. Participant, National Conference on, Social Change in Global India, Organized by Ethnographic and Folk Culture Society, NEDA Complex, Lucknow, March 12-14, 2004, Mummun Jha.

15. Sharing Fixed Costs in Franchise Contracts, 40th Annual Meeting of the Indian Econometric Society, Institute of Social and Economic Change, Bangalore, February 13-15, 2004, T.V.S. Ramamohan Rao.
16. Some Aspects of Stochastic Economics, a la Tintner Invited Lecture at the 40th Indian Econometric Society Meetings, Institute of Social and Economic Change, Bangalore, February 13-15, 2004, T.V.S. Ramamohan Rao.
17. Financial Constraints, Inventory Investment, and Fixed Capital, 6th Money and Finance Conference, Indira Gandhi Institute of Development Studies, Mumbai, March 25-27, T.V.S. Ramamohan Rao.
18. Quest for Space: A Study of Two Novels. Colloquium on Language and Space, CIIL Mysore, March 29, 2004, B. N. Patnaik.
19. Computational Linguistics for Indian Languages Symposium on Indian Morphology, Phonology and Language Engineering, IIT Kharagpur, March 18 – 20, 2004, B. N. Patnaik.
20. On the Choice of an Appropriate Framework for Computational Linguistic Research on Indian Languages. SCALLA 2004, Working Conference Kathmandu, January 5 – 7, 2004, B. N. Patnaik.
21. Dissenter as Communicator. Special Lecture at International Seminar on Applied Linguistics in a Global World, Delhi University, December 12 – 14, 2003, B. N. Patnaik.
22. Oriya as Typologically Disturbed Language and Some Related Matters, Endowment Lecture at DLA Conference, June 19 – 21, 2003, B. N. Patnaik.
23. The Common Conceptualization of Mental Health: A Qualitative Investigation of Categories of Meaning, National Seminar on Social Dimensions of Health, Organized by UGC Centre of Behavioural and Cognitive Sciences, University of Allahabad, Allahabad, April 10-12, 2003, Shikha Dixit.
24. Changes in Cultural Beliefs Regarding Health and Illness among Bondos: A Qualitative Study, National Conference on Social Change in Global India, Organized by Ethnographic and Folk Culture Society, NEDA Complex, Lucknow, March 12-14, 2004, Mamta Misra and Shikha Dixit.
25. Environment Protection: The Role of Liability System in India, Berlin Conference 2003 on Governance for Industrial Transformation, Berlin, Germany, December 5-6, 2003, P. M. Prasad.

26. Plenary Talk Delivered and Chaired a Technical Session at the Vth Andhra Pradesh Sociological Conference held at the University of Osmania, Hyderabad, August 7-8, 2003, B. K. Pattnaik.
27. Plenary talk Delivered and Chaired a Technical Session at the 24th All India ISSA Conference, Organised by the Department of Sociology, H.S.Gour University, Sagar, January 23-25, 2004, B. K. Pattnaik.
28. Language and Democracy in India: A Linguistics Point of View, All India Social Science Congress, IIT Kharagpur, December 3-7, 2003, B. N. Pattnaik.
29. English in the Indian Context, Chief Guest's address at the Workshop on the Effective Use of Materials, AMU, Aligarh, December 14 – 16, 2003, B. N. Pattnaik.
30. Alienation as Comedy in Upamanyu Chatterjee's English, August, Sixth International Conference: Rethinking Modernity, the Department of English, University of Rajasthan, Jaipur in collaboration with the Forum on Contemporary Theory, M. S. University, Baroda and Louisiana State University, Shreveport, U. S. A., 14-17 December, 2003, T. Ravichandran.
31. Participant, the 21st Annual Convention of SIS and Conference on New Challenges in Information Management and e-learning in the age of Globalisation—Issues and Opportunities organised by the Central Library, IIT Roorkee and Society for Information Science, 9-11 April, 2003, T. Ravichandran.
32. Project Planning and Project appraisal vis-a'-vis Our Approaches Towards Sustainable Development, 35th Annual Conference of the Orissa Economic Association, held at SVM College, Jagatsingpur, Orissa, February 15-16, 2003, Rath B.
33. Growth Determinants of Orissa and Their implications for Future Development of the State, 35th Annual Conference of the Orissa Economic Association, held at SVM College, Jagatsingpur, Orissa, February 15-16, 2003, Rath B. & P. K. Jena.
34. Post-Evaluation of Environmental Abatement Measures of Kanpur Nagar Nigam (KNN) with Respect to Solid Waste Management, National Conference on Environmental Pollution Prevention and Control held at University Polytechnic, AMU, Aligarh, UP, June 5, 2003, Rath B. & Agarwal S.
35. Trade-off Between Delta Area Development vis-à-vis Watershed Area Development of a River for Sustainable Development: A Case Study of the Mahanadi River Basin, Orissa, India". 13th Stockholm Water Symposium, Stockholm, Sweden, August 11-14, 2003, Rath B.

36. Scope of Integrated Resource Management for Power Generation: with Reference to Generation of Power from Municipal Solid Waste, Workshop on Power Reforms: Technological and Financial, IIT Kanpur, September 4-5, 2003, Rath B.
37. Management of Water Resources Projects in India: Pitfalls, Problems and Prospects. Workshop on Overcoming Water Scarcity and Quality Constraints, Organized by Eco Friends at the St Mary Convent School, Kanpur, September 26-27, 2003, Rath B.
38. Environmental Impact of Outsourcing of Service Sector Activity in PSUs & Autonomous Institutions, 45th Annual Conference of the Indian Society of Labour Economics, Jadavpur University, Kolkata, Dec. 15-17, 2003, Rath B.
39. Revitalisation/Renovation of Common Property Resource (CPR) Potentials as an Alternative Means to Improve the Economy of Orissa, National Workshop on Reviving Orissa Economy: Opportunities and Areas of Action, Utkal University, Bhubaneswar, January 17-18, 2004, Rath B. & N. C. Sahu.
40. Export and Growth Causality: An Indian Experience in the Post Liberalisation Period, 36th Annual Conference of the Orissa Economic Association, held at Bhubaneswar, Orissa, February 21-22, 2004, Rath B. & N. C. Sahu.
41. Role of Youth in Water Purification and Water Conservation, Workshop organized by the Eco Friends, Kanpur on the eve of the World Water Day, March 22, 2004, Rath B.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. APORS 2003: International Conference held on December 8-11, 2003, New Delhi, India, Swami Sanjeev.
2. Sixth International Convention on Quality Circles, Lucknow, 16-19th Dec. 2003, A.K. Mittal.
3. APORS 2003 Dec. 8-10, 2003, New Delhi, A.K. Mittal.
4. BHEL Inter Unit Quality Convention Haridwar July 19, 2003, A.K. Mittal.
5. 14th Kanpur Convention on Quality Circles, KCCQC 2003, Agra 12-13 September 2003, A.K. Mittal.

6. Elitex 2003 Exhibition 28 April 2003 New Delhi (Patent Technology Mapping) Demonstration, A.K. Mittal.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Annual Meeting of the Electron Microscopy Society of India, Shimla, April 16-18, 2003, R. Balasubramaniam.
2. International Conference on Advances in Surface Treatments 2003, International Advanced Research, Centre for Powder Metallurgy & New Materials, Hyderabad, November 3-6, 2003, R. Balasubramaniam.
3. General Motors Research and Development Conference, Bangalore, November 9, 2003, R. Balasubramaniam.
4. CORCON 2003 International Conference on Corrosion, Mumbai, December 1-4, 2003, R. Balasubramaniam.
5. Workshop on History of Indian Science and Technology, New Delhi, December 11-15, 2003, R. Balasubramaniam.
6. Annual Meeting of the Materials Research, Society of India, Varanasi, February 9-11, 2004, R. Balasubramaniam.
7. 17th National Convention of Metallurgical and Materials Engineers and National Seminar on Emerging Materials for Wear Applications, Bhopal, India, September 11-12, 2003, Bikramjit Basu.
8. 8th International Conference and Exhibition of European Ceramic Society held in Istanbul, Turkey, June 29, 2003, Bikramjit Basu.
9. Materials Research Society Spring Meeting, April 21-25, 2003, Monica Katiyar.
10. International conference on 'Advances in Powder Metallurgy and Particulate Materials' Las Vegas, U.S.A. June 8-12, 2003, R. K. Dube.
11. Conference on 'Electron Microscopy and Allied Fields', EMSI, Central Potato Research Institute, Shimla, 2003, Gouthama,
12. Materials Research Society Spring Meeting , 21-25 April 2003, Deepak Gupta.
13. NMD-ATM, 2003 at Calcutta November 14-16, 2003, Dipak Mazumdar.
14. Fluent CFD conference at Pune, November 17-19, 2004, Dipak Mazumdar.

15. Indo-US workshop on 'Future trends in intelligent processing of Metallic materials', Goa, India, Dipak Mazumdar.
17. International Symposium on 'Transformation and Deformation Mechanisms in Advanced High Strength Steels', Canadian Institute of Mining and petroleum, Vancouver, Canada, August 2003, R. K. Ray.
18. 3rd International Conference on Science, Technology, and Application of Sintering (SINTERING 2003), State College, PA, USA, September, 14-17, 2003.
19. International Conference on Advances in Materials & Processes for Industrial Applications, September 25-17, 2003, Pune, Anish Upadhyaya.
20. 57th Annual Technical Meeting of The Indian Institute of Metals NMD-ATM November 14-17, 2003, Kolkata, Anish Upadhyaya.
21. Indo-US Workshop on Futuristic Manufacturing, March 2004, Anish Upadhyaya.

DEPARTMENT OF MATHEMATICS

1. Synthesizing the Classical and Inverse Methods in Linear Calibration, at the 54th session of International Statistical Institute at Berlin, Germany in August 2003, Shalabh.
2. Consistent Estimation of Coefficients in Measurement Error Models with Replicated Observations at the Seminar on Multivariate Analysis and its Applications, Calcutta University, Calcutta in March 2004. Invited talk, Shalabh.
3. Annual Conference of Bharat Ganita Parishad Nov. 15, 16, 2003, Chief Guest and invited lecture 'On Multipliers of vector valued function spaces'. (Lucknow University), Tewari, U.B.
4. Joint India – AMS meeting, Dec. 17-20, 2003, Invited lectures on 'Isometric multipliers of L^p - spaces' at IISc Bangalore, Tewari, U.B.
5. 11th Ramanujan Sumposium on Recent trends in operator theory and Banach Algebras March 3-5, 2004. Key note address and also invited lecture on 'Vector-Valued Multipliers and Operator Valued measures' organised at The Ramanujan Institute of Mathematics, University of Madras, Tewari, U.B.
6. Mathematical methods and applications, IIT, Chennai, Dec, 22, 2003. Presented a paper and chaired a session, Shunmugaraj.

7. Delivered an invited lecture at the International Conference on Differential Equations, Dynamical systems and applications from 19.5.2003 to 24.5.2003 Atlanta, U.S.A. Title of talk: Resonance problems for Hardy-Sobolev operator with indefinite weights, Raghavendra, V.
8. An invitation to Monotonic Analysis, Asia-Pacific Conference on Operations Research-2003 (APORS-2003), New Delhi, 8th to 11th December, Dutta, J.
9. National Workshop on Logic and Artificial Intelligence, Department of Pure Mathematics, University of Calcutta, October 13-16, 2003, Delivered invited lectures on Paraclassical Logics and Non-monotonicity, Banerjee, M.
10. CIT 2003, 6th International Conference on Information Technology, Bhubaneswar, India, December 22-25, 2003. Delivered advanced tutorial on Rough Set Theory, Banerjee, M.
11. Analysis of Hybrid Censored Competing Risks Data, International Conference on Recent Developments in Theoretical and Applied Statistics, held at the University of Tamsui, Taiwan, during December 15-16, 2003, (Invited Speaker), Kundu, D., Kannan, N., Balakrishnan, N.
12. Application of method of semidiscretization to nonlinear functional differential equation with nonlocal history condition, Paper presented in National Conference on Wavelets and its Applications, Bhubaneswar, 7-11 Feb. 2004, S. Agarwal., Bahuguna, D.
13. Modelling the depletion of resources by population pressure augmented industrialization: Its effects on population, Presented at 2004 Hawaii International Conference on Sciences, held at Honolulu, HI U.S.A., during Jan. 15-18, 2004, Sinha, Prawal., Sharma, S., Shukla, J.B.
14. Modelling the survival of a biological species affected by toxicants (pollutants) emitted from external sources as well as formed by its precursors, Presented at 2004 Hawaii International Conference on Sciences, held at Honolulu, HI U.S.A., during Jan. 15-18, 2004, Sinha, Prawal., Sharma, S., Shukla, J.B.
15. Modelling the spread of a carrier-dependent infectious disease: Effect of migration from environmentally degraded habitat, presented at the American Mathematical Society – Mathematical Association of America, Jt. Mathematical Meeting held at Phoenix, Arizona, U.S.A. Jan. 7-10, 2004, Sinha, Prawal., Ghosh, M., Chandra, P., Shukla, J.B.

16. A thermohydrodynamic analysis of a fitted pad slider bearing with heat conduction to the pad and slider, Presented at 2004 Hawaii International Conference on Sciences, held at Honolulu, HI U.S.A., during Jan. 15-18, 2004, Sinha, Prawal., Rao, P.S., Rathish Kumar B.V.
17. Wavelets in Sparse Matrix Computation, in Orissa Mathematical Society Annual Conference, Feb 7-11, Bhubaneswar, 2004, Rathish Kumar, B.V.
18. A Wavelet Taylor Galerkin Method for Advection-Diffusion Problems, in Orissa Mathematical Society Annual Conference, Feb 7-11, Bhubaneswar, 2004, Rathish Kumar, B.V., & Manimehra.
19. On the development of parallel CGM solver for CFD computations on Anu-Cluster, presented in 14th Int. Conf. Of the Jangjeon Mathematical Society, Univ. Mysore, India, Dec. 22-24, 2003, Rathish Kumar, B.V., Kumar, B.
20. Convection in Corrugated Porous Enclosures, in Proceedings of 48th congress of ISTAM, 44-53, held at BITS, MESRA, Ranchi, India, Dec. 18-21, 2003, Rathish Kumar, B.V. & Shalini.
21. Multilayer Taylor Wavelet Galerkin method for parabolic and hyperbolic partial differential equations, presented in 48th congress of ISTAM, held at BITS, MESRA, Ranchi, India, Dec. 18-21, 2003, Rathish Kumar, B.V., & Manimehra.
22. Numerical simulation of load carrying mechanism in high speed titled pad slider bearing lubrication, presented in 14th Int. Conf. of the Jangjeon Mathematical Society, Univ. Mysore, India, Dec. 22-24, 2003. Rao, P.S., Rathish Kumar, B.V., Sinha, Prawal.
23. Effect of fluid inertia on titled pad slider bearings with heat conduction to the stationary pad, in National Conference on Fluid Flow and Control, UGC DRS Center, Bharathiar University, Coimbatore, March 28-29, 2003, Rao, P.S., Rathish Kumar, B.V., Sinha, Prawal.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Aerospace Manufacturing & Value Engineering Panel meeting at Hyderabad Manufacturing of Polymer Composite Products using Rapid Tooling, March, 2004, Prashant Kumar.
2. National Conference on Advanced Manufacturing and Robotics, CMERI, Durgapur, Jan 10-11, 2004, Presented two papers, Ashish Dutta.

3. Prediction and Analysis of the Bubble Formation in Film Boiling, INVITED TALK, FLUENT CFD Conference for India and South East Asia, Pune, India, November 18-20, 2003, G.Biswas.
4. Some Aspects of Mathematical Models of Turbulent Flows, Invited Talk at the 6th CFD Symposium (In honour of Prof. S.M. Deshpande), Bangalore, India, August 11-13, 2003,.G. Biswas.
5. Participated in the First General Motors R&D Symposium, India Science Laboratory, Bangalore, November 10,2003,.N.V.Reddy.
6. 7th Indo-Japan Seminar on Advanced Manufacturing Systems, March 15-22,2003, Tokyo, Japan, N.V.Reddy.
7. JSME workshop on Advanced Manufacturing Systems for the members of Asian Youth Forum on Advanced Manufacturing, Tokyo, February 15 - 19, 2004, Core member of the A YFAM organized by JSME, Japan, N.V.Reddy.
8. 3rd JSTP International Seminar on Precision Forging (3rd JSTP ISPF, Organized by Japan Society for Technology of Plasticity), Nagoya (JAPAN), March 14-19, 2004, N.V.Reddy.
9. Indo-USA Collaboration on Futuristic Manufacturing, N.V.Reddy.
10. Better Air Quality (BAQ) 2003 International Conference, Manila, Philippines, Dec. 17-19, 2003, B.P.Pundir.
11. Third SAE India Mobility Conference, New Delhi, Jan. 17-19, 2004. Chairman of a Technical Session, B.P.Pundir.
12. 2004 SAE World Congress, Detroit, Michigan, March 8-11, 2004, B.P.Pundir.
13. The Second Evolutionary Multi-Criterion Optimization (EMO-03) Conference, 8-11 April, 2003, Faro, Portugal. Presented a keynote lecture, chaired a session, and made three oral paper presentations, K. Deb.
14. 54th International Astronautical Congress of the International Astronautical Federation, the International Academy of Astronautics, and the International Institute of Space Law, 29 September-03 October 2003, Bremen, Germany. Presented a paper, K. Deb.

15. 17 August, 2003: Invited to present a tutorial during 'Multi-disciplinary International Scheduling Conference (MISTA)' under the theme 'Tutorials in Modern Optimization Methods' at the University of Nottingham, UK, K. Deb.
16. 17 September, 2003: Invited to present a keynote lecture entitled 'An Introduction to Multi-Objective Evolutionary Optimization' during EUROGEN-2003 held in Barcelona, Spain, K. Deb.
17. 26-28 October, 2003: 6th International Conference on Artificial Evolution (EA-2003). Marseille, France, K. Deb.
18. 9 December, 2003: Invited to present a keynote lecture entitled 'Challenges to Multi-Objective Evolutionary Optimization' during Congress on Evolutionary Computation (CEC- 2003) held in Canberra, Australia, K. Deb.
19. A National Consultative Workshop On Scientific Strategies For Production Of Non-Edible Vegetable Oils For Use As Biofuels Policy document preparation Conference on Biodiesel Fuels by DST, Government of India, August 30-31, 2003, IISc Bangalore, Presented two Invited Papers, Avinash Kumar Agarwal.
20. XVIII National Conference on I C Engines and Combustion organized by Combustion Institute (India Section), College of Engineering, Trivendrum, December 15-18th, 2003, Presented one contributed paper and chaired one session, Avinash Kumar Agarwal.
21. ASME-ICED 2003 Spring technical conference, Salzburg, Austria, 11-14th May 2003, Presented a contributed paper, Avinash Kumar Agarwal.
22. SAE 2004 India Mobility Conference, New Delhi, January 12-15th, 2004, Presented two contributed papers and chaired one session, Avinash Kumar Agarwal.
23. SAE World Congress 2004, Cobo Center, Detroit, March 8-12th, 2004, Presented one contributed paper, Avinash Kumar Agarwal.
24. Attended an International Conference on Advances in Materials and Processing Technology held during 8-11 July, 2003 at Dublin City University, Dublin, Ireland, S.K.Choudhury.
 - a) Presented a paper on Tool Wear Prediction in Turning co-authored by P. Srinivas in the conference.
 - b) Chaired two sessions on Machining during the conference.
25. 21st IIR International Congress of Refrigeration 2003 held at Washington (USA), Aug 17-12, 2003, Contributed Paper, Keshav Kant.

26. Sixth ISHMT-ASME Heat and Mass Transfer Conference held at Kalpakkam, India Jan 05-07, 2004, Contributed paper, Keshav Kant.
27. Int. Conference on Air-conditioning and Refrigeration (ACRECONF 2003) held at New Delhi, Sept. 10-12, 2003, Contributed Paper, Keshav Kant.
28. Delivered Keynote address in National Symposium on Mechanisms & Design, IISc, Bangalore July 25, 2003, Dr.A.K.Mallik.
29. NDE 2003, Thiruvananthapuram, 11-13, Dec 2003, Dr.N.N.Kishore.
 - a) Chaired a session
 - b) Presented a paper on, Ray bending consideration of ultrasonic Tomographic Reconstruction of Defects.

DEPARTMENT OF PHYSICS

1. Invited talk at the International Conference on Unconventional Applications of Statistical Physics, SINP, Kolkata, 2003, D. Chowdhury.
2. Invited talk at the National Conference TP2003, IACS, Kolkata, 2003, D. Chowdhury.
3. Physics and techniques below 20K IISc Bangalore, Feb. 16-18, 2004, A.K. Majumdar.
4. Physics of novel materials, S.N. Bose Centre, Kolkata, Jan. 5-10, 2004, R. Prasad.
5. IIT Roorkee, April 6-8, 2003, S.C. Agarwal.
6. MRS Symposium, San Francisco, April 21-25, 2003, S.C. Agarwal.
7. XIX Main SERC School in Theoretical High Energy Physics, Univ. of Rajasthan, Jaipur, Feb. 9-28, 2004, 9 Invited Lectures, S.D. Joglekar.
8. National Conference on Nonlinear Systems and Dynamics, Kharagpur, M.K. Verma.
9. ICTP-INFN Summer School on Transport, Reaction and Propagation in Fluids, ICTP, Italy, September 2003, M.K. Verma.
10. Kolmogorov's Legacy in Physics: One Century of Chaos, Turbulence and Complexity, ICTP, Italy, September 2003, M.K. Verma.

11. 16th Int. Conf. of Ion Beam Analysis, Albuquerque New Mexico, July 25-30, 2003, V.N. Kulkarni.
12. Workshop on High Energy Astrophysics, IIT Kharagpur, 23-25 February 2004, invited talk and chaired a session, P. Jain.
13. National Laser Symposium, IIT Kharagpur, 22-24 Dec. 2003, S. Sivaprakasam.
14. Indo-French Workshop on Organic Photonic Components and Processes, Feb. 2-6, 2004, Kochi, Invited Talk, S. Kumar.
15. Indo-Japanese Meeting on Linear Colliders, Centre for Advanced Technology, Indore, April 17-18, 2003, Invited Speaker, S. Raychaudhuri.
16. 6th Meeting of Asian Collaboration for Accelerators, Tata Institute of Fundamental Research, December 15-17, 2003, Invited Speaker & Session Chair, S. Raychaudhuri.
17. 8th Workshop on High Energy Physics Phenomenology, IITB, Mumbai, January 4-16, 2004, Invited Speaker & Member, National Organising Committee, S. Raychaudhuri.
18. 17th SERC School in High Energy Physics, University of Rajasthan, Jaipur, February 18-28, 2004 Guest Faculty, S. Raychaudhuri.
19. Advances in Computational & Experimental Engineering & Sciences (ICCES'03), 24-29 July 2003, Corfu, Greece.
20. Twelfth International Conference on Physics of Semiconductor Devices (IWPSD 2003) held at IIT Madras Chennai, December 16-20, 2003, Y.N. Mohapatra.

Seminars Presented

CENTRE FOR LASER TECHNOLOGY

1. Mirrorless Lasers National Symposium on Engineering Optics Merrut Univ April 7, 2003, R. K. Thareja.
2. Member National Advisory Committee National Symposium on Atomic, Molecular Structure, Interactions and Laser Spectroscopy. B H U, March 14-15, 2004, R. K. Thareja.
3. Member National Organizing Committee, National Conference on Lasers and Their Applications (NCOLA-2004) Amravati University (Maharashtra) Jan 28-30, 2004, R. K. Thareja.
4. Member National Advisory cum Organizing Committee of the Symposium, National Laser Symposium-2003, IIT Khargpur Dec. 22-24, 2003, R. K. Thareja.
5. Symposium Advisory committee, National Symposium on Engineering Optics Merrut Univ April 7, 003, R. K. Thareja.
6. Fifth National Symposium on Radiation and Photochemistry IIT Kanpur, March 3-5, 2003, R. K. Thareja.
7. Application of Inverse Techniques in Engineering, presented at Mewbourne School of Petroleum and Geological Engineering, University of Oklahoma, Norman, 12th September, 2003, K. Muralidhar.
8. Flow Visualization using Optical Measurement Techniques, presented at Department of Aerospace and Mechanical Engineering, University of Oklahoma, Norman, 2nd October, 2003, K. Muralidhar.
9. Optical Measurement Techniques for Buoyancy-Driven Flows, presented at Department of Mechanical Engineering, Louisiana State University, Baton Rouge, 24th October 2003, K. Muralidhar.
10. Simulation of Convection and Experiments on the Growth of Optical Crystals, presented at Department of Mechanical and Materials Engineering, Florida International University, Miami, 7th November, 2003, K. Muralidhar.
11. Imaging of Convection in Crystal Growth from an Aqueous Solution using Interferometry, Schlieren and Shadowgraph, presented at Department of Mechanical

Engineering, University of Minnesota, Minneapolis, 9th December, 2003, K. Muralidhar.

12. Diode Lasers and its applications, Condensed Matter Workshop, organized by Department of Physics, IIT – Kanpur, 14th February 2004, S. Sivaprakasam.

DEPARTMENT OF AEROSPACE ENGINEERING

1. Stability analysis of composite laminates using higher order deformation theory for initial stability and nonlinear vibration, Motilal Nehru National Institute of Technology, Allahabad, May 10, 2003, N.G.R.Iyengar.
2. Stability analysis and interaction curves for composite laminates using higher order shear deformation theory, Dept. of Mechanical Engg. Univ. of Rhode Island, USA, July 3, 2003, N.G.R.Iyengar.
3. Analytical modeling of smart structures and application to helicopters, Invited talk: 15-th Annual General Meeting of Materials Research Society of India, BHU, Feb. 2004, C.Venkatesan.
4. Modeling of effect of wind using Six-degree-of-freedom trajectory formulation for wrap around fin stabilized rocket, ARDE, Pune, A. K. Ghosh.
5. Finite Element Computation of Fluid Flow, International Indian-Russian Workshop, High Performance Computing in Science and Engineering, HPC Se 2003, Moscow, Russia, 2003, Sanjay Mittal.
6. Shear Layer Instability and Drag-crisis for flow past a Cylinder, in Seventh U.S.National Congress on Computational Mechanics, Albuquerque, New Mexico, USA, 2003, Sanjay Mittal.
7. Study of Flow in a Supersonic Mixed-Compression Inlet, 6th annual CFD Symposium of CFD Division of the Aeronautical Society of India, Bangalore, India, August 11-13, 2003, Sanjay Mittal.
8. High Performance Computing in Fluid Mechanics, Academic Summit, Microsoft Research, Bangalore, India, 2004, Sanjay Mittal.

DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING

1. Genetics of Epilepsy – Impact on clinical management: Invited talk delivered in the Intensive National Program on Epilepsy, organized by the Department of Neurology, G.B. Pant Hospital and Maulana Azad Medical College, New Delhi, 29th February, 2004, S. Ganesh.

2. Concepts of Human Genetics: Invited talk delivered in the Short term workshop in genetics and molecular biology, Indian Institute of Technology, Kanpur, 18th to 25th October, 2003, S. Ganesh.
3. From Genes to Genome: Invited talk delivered in the Short term Course in Computational Neuroscience, Indian Institute of Technology, Kanpur, 7 to 18th July, 2003, S. Ganesh.
4. Pattern searching in protein and DNA sequences in the workshop Statistical methods in Bioinformatics held in Banaras Hindu University in Nov. 2003, R. Sankararamakrishnan.
5. Drosophila Genome: What do you learn from bioinformatics? in the short-term workshop on Genetics and Molecular Biology organized by the National Facility for Drosophila Repository and Research at IIT-Kanpur held during Sep/Oct 2003, R. Sankararamakrishnan.
6. Understanding proteins functions: Bioinformatics approaches. Inaugural lecture as part of the distance learning programme for Chattisgarh Government on Aug 15th 2003, R. Sankararamakrishnan.
7. Neuroinformatics: Databases, issues and challenges in the short-term workshop jointly organized by the National Brain Research Centre and Department of Electrical Engineering, IIT Kanpur in July 2003, R. Sankararamakrishnan.
8. Special Lecture: Introduction to Proteomics in short-term training programme on Bioinformatics, organized by Institute of Himalayan Bioresource Technology, Palampur, H.P. June 2003, B. Prakash, R. Sankararamakrishnan.
9. Special Lecture: Structural Biology and Drug Design in short-term training programme on Bioinformatics, organized by Institute of Himalayan Bioresource Technology, Palampur, H.P. June 2003, B. Prakash.
10. Techniques in Modern Biology. Invited lecture as part of the distance learning programme for Chattisgarh Government on Aug 23th 2003, B. Prakash.
11. Invited Talk on Structural Biology and Drug Design In the National Symposium on Expanding Horizons, New Delhi, organized by Delhi University in Oct. 2003, B. Prakash.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Transesterification of Vegetable Oils for Biodiesel Production: Engine Testing for Performance and Emissions, XVIII National Conference on I C Engines and Combustion organized by Combustion Institute (India Section), December 17-19, 2003, K Agarwal, S Garg, N Kaistha, S Sinha.
2. Characterisation and utilisation of Biodiesel as an Alternative Fuels for Diesel Engines, presented and published in the proceedings of A national consultative workshop on scientific strategies for production of non-edible vegetable oils for use as biofuels Policy document preparation workshop on Biodiesel Fuels by DST, Government of India, August 30-31, 2003, SuTRA, IISc Bangalore, A K Agarwal, S Garg.
3. Transesterification of Vegetable oils for Biodiesel Production: Process considerations, Present status and Future Challenges, presented and published in the proceedings of A national consultative workshop on scientific strategies for production of non-edible vegetable oils for use as biofuels Policy document preparation workshop on Biodiesel Fuels by DST, Government of India, August 30-31, 2003, SuTRA, IISc Bangalore, A K Agarwal, S Garg.
4. Modifying Dow Fire & Explosion Index, Department of Chemical Engineering, ETH, Zurich, Switzerland, March 19, 2004, J.P. Gupta.
5. Inherently Safer Design, a set of lectures, Department of Chemical Engineering, Helsinki University of Technology, Helsinki, Finland, March 22-26, 2004, J.P. Gupta.
6. CSIR Diamond Jubilee Lecture, National Metallurgical Laboratory, Jamshedpur: Genetic Algorithm (GA) and its use in the Multi-objective Optimization of Industrial Processes, July 2003, S.K. Gupta.
7. Process Intensification in a Trickle Bed Reactor – Experimental Studies, Dept. of Chemical Engineering, Howard University, Washington, D.C., October 30, 2003, D.P. Rao.
8. Self-organized thin films, Tata Research Design and Development Centre, Pune, A. Sharma.
9. Patterning of soft materials, National Chemical Laboratory, Pune, A. Sharma.
10. Instability of thin elastic films in adhesion, Lehigh University, A. Sharma.

11. Stability of single layer and two-layer viscoelastic plane Couette flow past a definable solid layer, Seminar given at the National Chemical Laboratory, Pune, February 2004, V. Shankar.

DEPARTMENT OF CHEMISTRY

1. Invited Lecture series (4 lectures) on February 14 & 15, 2003 at Department of Chemistry, Gulbarga University, Gulbarga, F. A. Khan.
2. Invited Lecture at the Department of Chemistry, May 5, 2003, IIT Guwahati, F. A. Khan.
3. Invited lecture in NOST-2003, October 29-November 2, 2003, Goa, F. A. Khan.
4. T. R. Seshadri Memorial Lecture, University of Delhi, February 2003, H. Ila.
5. Invited lecture at Boehringer Ingelha, Germany, June 2003, H. Ila.
6. Astrazeneca Research Foundation, Bangalore, July 2003, H. Ila.
7. IUPAC International Conference on Biodiversity and Natural Products: Chemistry and Medical Applications, University of Delhi, January 2004, H. Ila.
8. National Symposium on Organic Chemistry and Natural Product Chemistry, Manipur University, March 2004, H. Ila.
9. Invited Lecture at Advanced Photon Source, Argonne National Laboratory, USA, S. Sundar Manoharan.
10. Invited Lecture in International Conference in composites and Nano engineering, New Orleans July 2003, S. Sundar Manoharan.
11. Invited lecture at UGC refresher course held at Bharadidasan University, Trichy, Tamil Nadu, S. Sundar Manoharan.
12. Invited lecture at Mitsubishi Electronics at Boston, USA, Nov 2003, S. Sundar Manoharan.
13. Invited lecture at National seminar on Energy trends in Technology held at Karunya Institute of Technology, Cimbatore, Tamil Nadu, January 2004, S. Sundar Manoharan.

14. Invited lecture on nanomaterials at Lucknow University, Feb 2004, S. Sundar Manoharan.
15. Invited lecture on white light LED at the Indo-Italian workshop at IIT Kanpur , S. Sundar Manoharan.
16. Invited lecture on Nanomaterials at North Eastern Hill University Shillong, March 2003, S. Sundar Manoharan.
17. Bioinspired copper binding peptide conjugates from prion octarepeat and serum albumin. 10th National Organic Symposium Trust (NOST) Meeting, October 29-November 3, 2003, Goa, Verma S.
18. Modeling prebiotic catalysis: Uranyl ion impregnated adenine homopolymer as a reusable photonuclease. 3rd Trivandrum International Symposium on Recent Trends in Photochemical Sciences, January 5-7, 2004, Trivandrum, Madhavaiah, C., and Verma S.
19. Reverse tandem peptide conjugates as models for prion protein aggregation. Current Trends in Drug Discovery Research-2004, February 17-20, 2004, Lucknow, Verma S., Madhavaiah, C., Prasad, K. K.
20. Invited Lecture on August 10, 2003 at Dept. of Chemistry, Univ. of Nebraska, U.S.A., Vinod K. Singh.
21. Invited Lecture on August 13, 2003 at Dept. of Chemistry, Ohio University, Athens, U.S.A. , Vinod K. Singh.
22. Invited talk in a India-Korea seminar during July 27-31, 2003 at Yonsei University, Seoul, Korea, Vinod K. Singh.
23. Invited lecture at post-NOST symposium on Nov. 2, 2003, held at NCL Pune, Vinod K. Singh.
24. Invited Lecture at an Indo-US workshop on Organometalics during Dec. 9-11, 2003 held at IIT Chennai, Vinod K. Singh.
25. Osaka University, Osaka, JAPAN, 2003, Veejendra K. Yadav.
26. Osaka City University, Osaka, JAPAN, 2003, Veejendra K. Yadav.
27. Osaka Prefecture University, Osaka, JAPAN, 2003, Veejendra K. Yadav.
28. Nagoya University, Nagoya, JAPAN, 2003, Veejendra K. Yadav.

DEPARTMENT OF CIVIL ENGINEERING

1. Emerging Construction Materials, Short term course on building material testing laboratory, Institute of Research Development and Training, UP, Kanpur, 25th June, 2003 and 5th November, 2003, A. Das.
2. Interlinking of rivers in India : A Challenge ahead, World Environment Day, The Institution of Engineers (India), Kanpur Local Centre, June 5, 2003.
3. Precautions for Safe Recharge to Groundwater, Awareness and Training Workshop on Rain Water Harvesting, Housing and Urban Planning Deptt., Govt. of U.P., August 22, 2003, Lucknow.
4. Rain Water Harvesting and Artificial Recharge, Kanpur Development Authority, June 2003.
5. Airborne Altimetric LiDAR, IIRS Dehradun, 30 Sept. to 1 Oct., 2003, B. Lohani.
6. Capacity Design of Welded Steel MRF Connections, Presented at the Second Indo-German Workshop on Seismic Safety of Structures, Risk Assessment and Disaster Mitigation, 15-16 February 2004, IIT Madras, Arlekar, J.N, and Murty, C.V.R.
7. Durability based design of concrete structures National seminar on Use of Concrete in construction of infrastructural facilities for the development of nation, Concrete Day celebrations organized by the Indian Concrete Institute, UP Allahabad Chapter, September 7th, 2003, Misra Sudhir.
8. Northeast of India At Risk from earthquakes: Its Time..., National Workshop on Earthquake Risk Reduction – The Gujarat Experience, 31 January 2004, GSDMA, Ahmedabad, Murty, C.V.R.
9. Geomorphic evolution and stratigraphic development of the Quaternary alluvial plains of the Gangetic rivers, India, 3rd Latin American Congress of Sedimentology, June 8 - 11, 2003, Belém - Pará – Brazil, Sinha, R., Jain V., Gibling, M.R. & Tandon, S.K.
10. Quaternary palaeoclimatic reconstruction from mineralogy and geochemistry of the Sambhar lake playa sediments, Thar desert, India, XVI INQUA Congress, July 23-30, 2003, Reno, USA, Sinha, R., Smykatz-Kloss, W., Stueben, D., and Berner, Z.
11. Interfluves of the southern Ganga plains, India: attached and detached floodplains in the late Quaternary, XVI INQUA Congress, July 23-30, 2003, Reno, USA, Gibling, M.R, Tandon, S.K., Sinha, R., and Jain, M.

12. Hydrological Variability and Landscape Evolution in alluvial river system: An example from the Ganga plains, India. XVI INQUA Congress, July 23-30, 2003, Reno, USA, Jain V. & Sinha, R.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

1. Universal Relations (two lectures) Ann. Symp. Calcutta Logic Circle October, 2003, Somenath Biswas.
2. Smart Card Based Protocol for Secure Access of Mobile Host in IPv6 Foreign N/W, KIIT, Bhubaneswar, December 2003, R.K Ghosh.
3. Machine-aided Translation: How to translated unconstrained text, Sept. 29, 2003. University of Texas, Austin, Ajai Jain.
4. IIIT Trivandrum, Large Circuit Testing, May 22, 2003, Ajai Jain.
5. Machine Aided Translation, Dec. 16, 2003 Jadavpur University, Calcutta, Ajai Jain.
6. IPv6: An Introduction IPv6 Forum of India seminar series, New Delhi September 2003, Dheeraj Sanghi.
7. Turning 802.11 Inside Out CSI Seminar, Lucknow, November, 2003, Dheeraj Sanghi.
8. Lambda calculus and games semantics, Calcutta University, October 2003, Anil Seth.
9. Games semantics, IMSC Chennai , March 2004, Anil Seth.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Harmonic Currents in a Distribution system, National Workshop on Custom Power, IISc. & ERDC(I), June 13, 2003, P. Sensarma.
2. Reverse Leakage Current in Polymer Light emitting Diodes, Workshop on Organic Electronics held at IIT Kanpur, Oct. 14-17, 2003, R.S. Anand.
3. Resource person to the workshops organized at AIT Bangkok, Thailand on Demand Side management and Distribution Automation, during 20-22 August 2003, S.C. Srivastava.
4. A training programme on Power System Operation Automation & Management, AIT Bangkok ,1-19 December 2003, S. C. Srivastava and S. N. Singh.

5. Delivered invited lectures in the POWERFEST 2003 conference during 28-29 November 2003 at National Institute of Technology Kurukshetra on Power System Restructuring, S. C. Srivastava.
6. Evolution of Neural Networks from Artificial to Real, Invited Talk, International Conference on Information Technology, CIT 2003, Bhubaneswar, Laxmidhar Behera.
7. Recurrent Quantum Neural Networks – A New Approach to Cognitive Modeling, Invited Lecture, International Conference on Intelligent Signal Processing and Robotics, ISPR-04, IIT, Allahabad, Laxmidhar Behera.
8. Presented a ten and a half hours lecture series titled Power Electronics Applications in Power Systems during June 23-26, 2003, as a part of the prestigious Grainger Lecture Series at the University of Illinois at Urbana-Champaign in cooperation with the Power Systems Engineering Research Center, University of Wisconsin at Madison. The lecture slides and audio can be obtained from the web site, Arindam Ghosh.
9. Presented a seminar on Optimal Predictive Iterative Decoding of Turbo Codes in Coloured Gaussian Noise invited by IETE on 29.02.2004 at IIT Kanpur, K. Vasudevan.
10. Presented a seminar on RF MOSFET, I.I.T. Kanpur, October 20, 2003, Alope Dutta.
11. Presented a seminar on Overview of RF Circuit Design, IIT Kanpur, Feb. 19, 2004, Alope Dutta.
12. Delivered an invited lecture Modern Trends in Power Electronics in HBTI, Kanpur, Feb. 2004 during TechEra 2004, S.P. Das.
13. Delivered a seminar entitled UPQC-Q for Power Distribution System on 13th Dec. 2003 at IIT Madras, Chennai, S.P. Das.
14. Presented the seminar of Rural Elect and Distributed Gen. for Sustainable Development (Four lectures), AIT Thailand, July 9-10, 2003, S. N. Singh.
15. Presented the seminar of Power System Restructuring: An Introduction, PSG Tech. Coimbatore, August 28, 2003, S. N. Singh.
16. Presented the seminar of Future of FACTS Controllers in Restructured Power System, KCT, Coimbatore, August 29, 2003, S. N. Singh.
17. Presented the seminar of Challenges for Electricity Generating Utilities in the Context of Restructuring, IIM Lucknow, Sept. 29, 2003, S. N. Singh.

18. Presented the seminar of Fundamental of Power System Deregulation, BVCOE, Pune Oct. 16-17, 2003, S. N. Singh.
19. Presented the seminar of Role of FACTS Controllers in Competitive Power Market, BVCOE, Pune, Oct. 16-17, 2003, S. N. Singh.
20. Presented the seminar of Power System Operation, Automation & Deregulation (15 Lectures), AIT Bangkok, Nov. 29-Dec. 19, 2003, S. N. Singh.
21. Presented the seminar of Artificial Neural Network: An Introduction, MITS, Gwalior, January 19, 2004, S. N. Singh.
22. Power System Restructuring: An Introduction, MITS, Gwalior, January 19, 2004, S. N. Singh.
23. Presented the seminar of Evolutionary Computation, MITS, Gwalior, January 19, 2004, S. N. Singh.
24. Delivered a seminar on Packaging considerations in array based optical interconnects in Nov. 2003, IIT Kanpur sponsored by IEEE UP section, Anjan K. Ghosh.
25. Delivered a seminar on Technical Writing in Feb. 2004 during Techkriti-04, Anjan K. Ghosh.
26. Delivered a talk on Fiber optic sensors in march 2004 in BHEL R&D Centre, Hyderabad, Anjan K. Ghosh.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. The Politics of Saul Bellows Apocalypse in The Deans December. IIT Delhi, September 16, 2003, G. Neelakantan.
2. Lectures on Issues in Sampling and Qualitative Methods, UGC Refresher Course, Staff College, Banaras Hindu University, Organized by Department of Sociology, Varanasi, January, 17, 2004, A. K. Sharma.
3. Social Dynamics of Indian Society: Felicitation Seminar In Honour of Professor J.S. Gandhi, Centre for the Study of Social Systems, School of Social Sciences, Jawaharlal Nehru University, New Delhi, April 2- 3, 2003, Munmun Jha.
4. A Cognitivist Approach to Creativity in DST/ICPR sponsored National Seminar on Creativity and Cognitive Science, University of Hyderabad, February 26 – 27, 2004, C. A. Tomy.

5. Lexical Underdetermination: A Case for Default Semantics, National Seminar on Lexical Semantics, Osmania University, Hyderabad, February 2004, Achla M Raina.
6. Transforming the Educational System: Lessons from the Eklavya Experience Tata Institute for Fundamental Research, Mumbai, December 19, 2003, Amman Madan.
7. Invited Talk, Stress: Its Psychological Aspects, Seminar on Stress Management, Dayanand Academy of Management Studies, Kanpur, May 17, 2003, Ulhas Banquet Hall, Rave 3, Kanpur, 2003, Lila Krishnan.
8. Invited Talk, Interpersonal Communication, Department of Psychology, Lucknow University – May 21, 2003, Lila Krishnan.
9. Invited Talk, Thinking Styles: Foundations of Effective Team Building, Senior Managers, Industrial Electronics, Kanpur (a subsidiary of LML), June 25, 2003. Lila Krishnan.
10. Invited Talk, Justice: A Social Psychological Analysis, Department of Psychology, Government Nutan Girls College, Kila Maidan, Indore-December 19, 2003, Lila Krishnan.
11. Two Talks (For CA trainees of Institute of Chartered Accountants of India, Kanpur, Interpersonal Skills and Group Behaviour I - Feb. 1, 2004, Interpersonal Skills and Group Behaviour II - February 10, 2004, Lila Krishnan.
12. Talk Rethinking Language, given to postgraduate students of HSS Department, IIT Madras, July 3, 2003.
13. Three lectures on the theme of Paradigms in the Sociology of Development, at UGC National Refreshers Course, Department of Sociology, Varanasi, January 12- 14, 2004, B. K. Pattnaik.
14. Role of Educational Institutions/Students in Promoting Sustainable Development” Lecture to NCC Cadets, IIT Kanpur, August 23, 2003.
15. Management of Water Resources Projects in India: Pitfalls, Problems and Prospects, Inaugural Address in the workshop on Overcoming Water Scarcity and Quality Constraints, organized by Eco Friends at the St Mary Convent School, Kanpur, September 26-27, 2003.
16. Leadership Crises in our Country and the Challenges before the Youth, NSS Camp held at Narshingpur College, Utkal University, December 24, 2003.

17. 3Ps of Water Resource Management in India, Centre for Policy Research, New Delhi, January 12, 2004.
18. Problems and Prospects of Industrial Development in Uttar Pradesh, Valedictory Address in the seminar on Economic Development in UP: Problems and Prospects, sponsored by ICSSR, Armapore P.G. College, Armapore Estate, Kanpur, March 1, 2004.
19. "Globalisation and its impact on the consumer market", Kanpur, March 15, 2004
20. EIA Aspects of various Development Projects in India, four lectures delivered in the Refresher's Course on Environmental Sciences, BHU, Varanasi, March 18-20, 2004.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. Invited Talk on Entrepreneurship and Marketing at Gaur Hari Singhania Institute of Management and Research, Kanpur, March 2004, Swami, S.
2. Evaluation of IT System: A case study, IIIT Hyderabad, Feb. 13, 2004, V. Bansal, and Himanshu Sadana.
3. Evaluation, Rating and Certification of Online Documents, IIIT Hyderabad, Faculty Workshop SAP, Bangalore Feb. 23-27, SAP Lab India, V. Bansal and Mayank.
4. Issues in forecasting Electricity Demand in South Asian Countries SARI/E Workshop on Advanced Demand Forecasting and Modeling Techniques, Pokhra, Nepal, 5 - 9 Jan. 2004, Anoop Singh.
5. Forecasting Electricity Demand in South Asian Countries – Results SARI/E Workshop on Advanced Demand Forecasting and Modeling Techniques, Pokhra, Nepal, 5 - 9 Jan. 2004, Anoop Singh.
6. Emerging Competitive Scenario in Indian Power Sector, Seminar at Indira Gandhi Institute of Development Research (IGIDR), Mumbai, 12th Dec. 2003, Anoop Singh.
7. Regulatory Issues in Power Sector Restructuring and Power Sector Scenario of India; delivered two lectures at IIM, Lucknow for Training Program on General Management for NTPC Managers, 14th April 2003.
8. Regulatory & Policy Developments in Indian Power Sector lecture in QIP sponsored short-term course on Electric Power System Operation and Management Restructured Environment, July 21-25, 2003, Anoop Singh.

9. Economics of Regulation, Guest Lecture, Dept. of Electrical Engg., IITK, 9th April 2003, Anoop Singh.
10. Invited lecture at National University of Singapore, Information systems Dept, 26/12/03 on New research directions for KM in the social sector-Knowledge exchange experience at Digital Mandi, Jayanta Chatterjee.
11. Invited lecture at Conference of Agricultural extension officers organized by National Institute of Agricultural Marketing, manage.com –10th Oct, 03, Jayanta Chatterjee.
12. Invited talk at Dept of Biotechnology on Business Incubation at biotechnology Parks. – 18th July, 03, Jayanta Chatterjee.
13. Appointed Lead researcher of The School of Organizational learning and transformation, at the Global Institute of Flexible Systems Management, Jayanta Chatterjee.
14. Awarded a 500 \$ prize for the Best paper published in the Flexible Systems Journal at the 3rd GLOGIFT conference, March 2004.
15. Retention in the Times of Downsizing and Restructuring: End of HRM? Seminar On Talent Hunt & Retention Strategies – Indian Experiences GHSIMR & NIPM, Kanpur, Feb. 15,2004, Rahul Varman.
16. Organised workshop: One-Day Workshop on Learning by Doing Engineering, Design, & Management Education IIT Kanpur, August 9, 2003, A.P. Sinha.

DEPARTMENT OF MATHEMATICS

1. Consistent estimation of regression coefficient in ultrastructural model with replicated observations at IIT Kharagpur in March 2004, Shalabh.
2. Completeness of small translates on spaces at ISI Calcutta, Ray, S.K.
3. A series of 8 lectures on Fourier Analysis on at ISI Bangalore between February 2004 to April 2004, Tewari, U.B.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Recent discovery of the original erection site of and original image atop the Delhi iron pillar, Indian Institute of Advanced Studies, Shimla, April 17, 2003, R. Balasubramaniam.

2. Delhi iron pillar: new insights, Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur, June 11, 2003, R. Balasubramaniam.
3. The story of the Delhi iron pillar, Rishi Valley School, Madanapalle, June 23, 2003, R. Balasubramaniam.
4. Metallurgy in India: past, present and future, Rishi Valley School, Madanapalle, June 24, 2003, R. Balasubramaniam.
5. Mysteries of the Delhi iron pillar unraveled, General Motors Research and Development Center, Warren, MI, USA, October 9, 2003, R. Balasubramaniam.
6. Astronomical significance of the Delhi iron pillar, Indian Institute of Science, Metallurgy Department, Bangalore, November 10, 2003, R. Balasubramaniam.
7. Relevance of Delhi iron pillar to modern technology, General Electric Corporate Research and Development, Bangalore, November 24, 2003, R. Balasubramaniam.
8. Recent advances in chromium coatings: Nanocrystalline Coatings and Composite Coatings, Shiram Pistons Pvt. Limited, Ghaziabad, January 31, 2004, R. Balasubramaniam.
9. Fundamentals of electrochemical coatings, Defence Metallurgical Research Laboratory Hyderabad, February 4, 2004, R. Balasubramaniam.
10. Corrosion resistance of the Delhi iron pillar, Defence Metallurgical Research Laboratory, Hyderabad, February 4, 2004, R. Balasubramaniam.
11. Toughness tailoring of zirconia ceramics (Invited), School of Materials Science, University of Leeds, May 2003, Bikramjit Basu.
12. Phosphor Characterization and Radiometry, Colorimetry, and Photometry, Short term course as a part of Samtel Research Center, April 2003, IIT Kanpur, Vasuda Bhatia.
13. AI techniques and their applications in steel making (Invited), Visakhapatnam Steel Plant, February 18, 2004, B. Deo.
14. New control paradigms in steel making (Invited), Bokaro Steel Plant February 26, 2004, B. Deo.
15. Industrial Grinding Practice, TEGA Industries, Calcutta, 29-31 May, 2003, B. K. Mishra.

16. Science and Technology of Particulate Materials, SAMTEL Ltd. Ghaziabad, 7-8 July, 2003, B. K. Mishra.
17. Application of Orientation imaging microscopy (OIM) for evaluation of grain boundary microstructure in structural ceramics, Indian Institute of Science, Bangalore, March 22, 2004, V. S. R. Murthy.
18. Fracture behaviour of fibre reinforced ceramic matrix composites : the role of interface microstructure (*Invited*), In workshop on 'Fracture behaviour of advanced materials : present status and future projections, Defence Metallurgical Research Laboratory, Hyderabad, December 19, 2003, V. S. R. Murthy.
19. Grain Boundary Engineering in Materials, General Motors Research and Development Center, Bangalore, January 16, 2004, V. S. R. Murthy.
20. Supersolidus Sintering- Process and Fundamentals (invited), Centre Des Materiaux, Ecole National Supérieure des Mines de Paris-ARMINES, France July 2003, Anish Upadhyaya.
21. TLP and SLP sintering of ferrous and non-ferrous systems (invited), IFAM, Bremen, Germany, July 2003, Anish Upadhyaya.
22. Recent advances in P/M processing of materials (Invited), International Conference on Advances in Materials & Processes for Industrial Applications, American Society of Metals, Pune Chapter, September 2003, Anish Upadhyaya.
23. Microwave Processing of materials, Solid State Physics Laboratory (SSPL), New Delhi, October 2003, Anish Upadhyaya.
24. Sintering of W-Cu alloys, Modison Metals Ltd., Vapi, December 2003, Anish Upadhyaya.
25. Vacuum interrupters through liquid phase sintering, Crompton Greaves Ltd, Mumbai, December 2003, Anish Upadhyaya.
26. Sintering of refractory metals, Nuclear Fuel Complex (NFC), Hyderabad December 2003, Anish Upadhyaya.
27. Supersolidus sintered bronze and stainless steels, Advanced Research Center for Powder Metallurgy and Advanced Materials (ARCI), Hyderabad, December 2003, Anish Upadhyaya.
28. Sintering of particulate MMCs, Corporate R&D, Bharat heavy electrical limited (BHEL), Hyderabad, December 2003, Anish Upadhyaya.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Functioning, Style and Focus of some Design Institution of World - A Perception, July 2003, ISC Bangalore, Prashant Kumar.
2. Design of Robots for Interaction with Humans, Symposium on Medical Science and Technology for Population Welfare, IIT Kharagpur, Oct. 27-29, 2003, Ashish Dutta.
3. Fracture of Functionally Gradient Materials, Defense Materials Research Laboratory, DRDO, Hyderabad, December 19, 2003, P.Venkitanarayanan.
4. Application of Inverse Techniques in Engineering, presented at Mewbourne School of Petroleum and Geological Engineering, University of Oklahoma, Norman, 12th September, 2003, K.Muralidhar.
5. Flow Visualization using Optical Measurement Techniques, presented at Department of Aerospace and Mechanical Engineering, University of Oklahoma, Norman, 2nd October, 2003, K.Muralidhar.
6. Optical Measurement Techniques for Buoyancy-driven Flows, presented at Department of Mechanical Engineering, Louisiana State University, Baton Rouge, 24th October 2003, K.Muralidhar.
7. Simulation of Convection and Experiments on the Growth of Optical Crystals, presented at Department of Mechanical and Materials Engineering, Florida International University, Miami, 7th November, 2003, K.Muralidhar.
8. Imaging of Convection in Crystal Growth from an Aqueous Solution using Interferometry, Schlieren and Shadowgraph, presented at Department of Mechanical Engineering, University of Minnesota, Minneapolis, 9th December, 2003, K.Muralidhar.
9. Finite Element Applications in Metal Forming, TATA STEEL, September 28-October 4, 2003, N.V.Reddy.
10. Overview of Smart Sensors; Modern Trends in Sensors and Actuators Organization: IIT Kanpur, September 2003, B. Bhattacharya.
11. Hybrid damping of flexible link manipulator; Annual Technical symposium of AR&DB Structures Panel Organisation: IIT Kanpur, March 2004, B. Bhattacharya.
12. Computerized Tomography in NDT, QNDE-2004, National Metallurgical Laboratory, Jamshedpur, Jan 2004, Invited Lecture, P. Munshi.

13. International Symposium of Electromachining held at University of Edinburgh, Scotland, U.K., V.K.Jain.
14. Various Keynote addresses, V.K.Jain.
 - a. CA/CAPP/CAM presented during MECHADAY at R.K.D.F. Institute of Science and Technology, Bhopal, March 16, 2004.
 - b. Face to Face - A dialogue with young Technocrats during the Annual program DIKSHA at MANIT Bhopal, March 12, 2004.
 - c. Understanding Advanced machining Processes, National conference on Engineering and Technology organised by Hitkarini College of Engineering and Technology, Jabalpur (M.P.) during Feb. 20-21, 2004.
 - d. Micro- to Nano-finishing, G.C.Sen Memorial Lecture, at the 18th National Convention of Production Engineering of The institution Of Engineers (India) held at Jabalpur on December 27-28, 2003.
 - e. Advances in Advanced Machining Processes, National Conference on Advances in Manufacturing Systems held at Jadavpur University, Kolkata during 2003, pp.23-41.
 - f. Advanced Manufacturing Technologies, 0 YNA MECH, 2003 held at H.B. T.I. Kanpur during April 5-6, 2003.
15. Micro-sensors for IC Engine Applications, Center for High Technology, Ministry of Petroleum, Government of India, Delhi, April 2003, Avinash Kumar Agarwal.
16. Development of Micro-sensors based on capacitance probes and fiber optical probes for internal combustion engine applications, Indian Oil Corporation (R&D Center), Faridabad, 9th May 2003, Avinash Kumar Agarwal.
17. Development of Biodiesel and Status in India, Diesel Locomotive Workshop, Varanasi, 8th January, 2004, Avinash Kumar Agarwal.
18. Invited Lecture, Cooling of Electronic Components, Anand Engineering College Agra, Feb. 24, 2004, Dr.Keshav Kant.
19. Modelling of Non-linear Vibration Isolators, RCI, DRDO, Hyderabad, Nov.19, 2003, Dr.A.K.Mallik.

DEPARTMENT OF PHYSICS

1. Nuclear Science Centre, New Delhi, September 2003, A.K. Majumdar.
2. IIT Kharagpur, December 2003, A.K. Majumdar.
3. 2 seminars at IIT Madras, February 2004, A.K. Majumdar.
4. Jahn-Teller Distortion in clusters and lithiated manganese oxides, IIT Roorkee, April 2, 2004, R. Prasad.
5. Statistical Theory of MHD Turbulence, Observatories de Nice, June 2003, M.K. Verma.
6. Statistical Theory of MHD Turbulence, Univ. of Brussels, June 2003, M.K. Verma.
7. Statistical Theory of MHD Turbulence, Nordit, Copenhagen, June 2003, M.K. Verma.
8. Energy cascade in MHD, IIT Kharagpur, December 2003, M.K. Verma.
9. Is there a preferred direction in the Universe, IIT Kanpur, February, 2004, P. Jain.
10. Is there a preferred direction in the Universe, Invited talk presented at the Workshop on High Energy Astrophysics, IIT Kharagpur, 23-25 February 2004, P. Jain.
11. Is there a preferred direction in the Universe, SN Bose National Center, Kolkata, 27 February 2004, P. Jain.
12. Diode Lasers and its applications, Condensed Matter Workshop, IIT Kanpur, Feb. 14, 2004, S. Sivaprakasam.
13. Godel Universe, Black Holes and String Theory, Institute of Physics, Bhubaneswar, June 2003, G. Sengupta.
14. Invitation to String theory, Institute of Physics, Bhubaneswar, June 2003, G. Sengupta.
15. Godel Universe, Time Machines and String Theory, IIT Kanpur, G. Sengupta.
16. Optical properties of small molecules for OLED, Invited talk at Indo-French Workshop on Organic Photonic Components and Processes, Feb. 2-6, 2004, Kochi, S. Kumar.

17. Electron transport in nanocrystalline silicon films, Laboratories PICM, Ecole Polytechnique, France, September 4, 2001, S. Kumar.
18. Electroweak Physics at a Linear Collider: The Indian Connection, Indo-Japanese Meeting on Linear Colliders, Centre for Advanced Technology, Indore April 17-18, 2003, S. Raychaudhuri.
19. Do we Really Live in Three Dimensions? IIT Kanpur, December 15-17, 2003, S. Raychaudhuri.
20. Extra Dimensions and Exotica at a Linear e^+e^- Collider, 6th Meeting of Asian Collaboration for Accelerators, Tata Institute of Fundamental Research, December 15-17, 2003, S. Raychaudhuri.
21. Status Report on Braneworld Phenomenology, 8th Workshop on High Energy Physics Phenomenology IITB, Mumbai, January 4-16, 2004, S. Raychaudhuri.
22. Living on the Edge: The Search for a Multi-dimensional World, Institute Lecture, Tata Institute of Fundamental Research, March 10, 2004, S. Raychaudhuri.
23. Brane World Phenomenology (3 lectures), Theoretical Physics Seminar, Tata Institute of Fundamental Research, March 9-12, 2004, S. Raychaudhuri.
24. Monitoring Fields and Charges in OLEDs, Invited Lecture at Indo-Italian Workshop on Organic Semiconductors held at IIT Kanpur from October 14-17, 2003, Y.N. Mohapatra.
25. A Metastability and Non-Debye Relaxation Phenomena due to defect clusters and disorder in semiconductors, Invited Lecture at ICCES 2003, Advances in Computational and Experimental Engineering and Sciences, 2003 Corfu, July 24-29, Greece, Y.N. Mohapatra.
26. Understanding Charge Processes in PLED and OLED, Invited Lecture at IWPSD03, IIT Chennai December 16-30, 2003, Y.N. Mohapatra.

Other Activities

(A) TECHNOLOGY DEVELOPED

DEPARTMENT OF AEROSPACE ENGINEERING

1. Wind Turbine Battery Charger Almost Ready for Transfer, Ghosh Kunal.
2. Technology to produce Nano-material by flame synthesis. Technology to produce Nano-material by flame synthesis (We are the first to produce nanomaterials by flame synthesis in India), D. P. Mishra.

DEPARTMENT OF CHEMICAL ENGINEERING

1. Hige distillation: Ready for transfer; Further development also needed, D.P. Rao.
2. Adsorptive separation of gas mixtures: Ready for transfer; Further development is also needed, D.P. Rao.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

1. AnglaBharti Technology Transferred to CDAC Pune, JNU, IIT Bombay, Utkal University, IIT Guwahti, CDAC Calcutta, TIET Patiala and CDAC Trivandrum, Ajai Jain.
2. Organized workshop on AnglaBharti Mission, March 28-30, 2004 at IIT Kanpur, Ajai Jain.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Anaesthesia Monitor: This equipment has been developed by GC Ray and Gautam Das. It is a complete product and ready for transfer.
2. Developed the Polymer Light Emitting Diode (PLED) technology of ITO/PEDOT/MEHPPV/Ca/Al and achieved 912 Cd/m² for the devices, which were test operated for more than 44 hours, first ever done in India. Further development for commercialization is required, R.S. Anand.
3. PLED devices have been made on thin plastic sheet, first ever in India. Further development for commercialization is required, R.S. Anand.

4. Led the efforts on Technology Development on Power Distribution Automation hardware and software including, R.P. Gupta and S.C. Srivastava.
 - Automation software to enable remote monitoring, alarm generation and remote control
 - Remote terminal unit (RTU)
 - Remotely operable load break switches suitable both for HV and LV side of distribution transformer
 - Client-Server data communication link over dialup network
 - System instrumentation
 - Automation protocols
 - Distribution automation simulator (a scaled down model of a real-life automated distribution network) to provide a test bed for a comprehensive testing of the developed technology, components and software.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Development of simulator for a Plasma Display Panel (PDP) cell, Samtel Center, Deepak Gupta

DEPARTMENT OF MECHANICAL ENGINEERING

1. Effect of Surfactant on Heat and Mass Transfer Enhancement, Dr. Keshav Kant.
2. Simulated Moving Bed Heat Regenerator, Dr. Keshav Kant.

DEPARTMENT OF PHYSICS

1. Room Temperature STM, Anjan K. Gupta.

(B) SOFTWARE DEVELOPED

DEPARTMENT OF AEROSPACE ENGINEERING

1. Generic Model to Estimate Parameter from Flight data of an Artillery Shell, Delivered, A. K. Ghosh.
2. Six degree of model to evaluate dynamic stability boundaries of an wrap around rocket at supersonic speed, Delivered, A. K. Ghosh.
3. Computer Program for structural optimization. Product is ready for transfer to VSSC (Trivandrum), C. S. Upadhyay.

DEPARTMENT OF CHEMICAL ENGINEERING

1. JAVA implementation of Adaptive Centroid Algorithm for Gene Expression Profiling. JB Singh (B Tech student) and S. Garg.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Monitoring and Control Software for Power Distribution Automation, R. P. Gupta.
2. Server Software for Remote Terminal Unit, R. P. Gupta.
3. Application Software for Remote Terminal Unit, R. P. Gupta.
4. Energy Audit and Accounting Software for Power Distribution Utilities, R. P. Gupta.
5. Trouble Call Management Software for Power Distribution Utilities, R. P. Gupta.
6. Dynamic Interaction Study Program for Small Signal Stability Analysis, R. P. Gupta.
7. Developed FDTD code for characterizing inhomogeneous dielectric resonator and also, code developed for generalized filter theory, Animesh Biswas.
8. Brihaspati, Brihaspati Synch. (Ready for transfer), Y.N. Singh.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Closed form analysis of hybrid damping in Smart Structures: Software for simple boundary Conditions have been developed - currently the extension in going on for free-free structures, Dr. Bishakh Bhattacharya.
2. High precision finite element analysis of laminated composite plates: Software for composite plates with embedded sensors and actuators have been developed - closed loop controller design is in progress, Dr. Bishakh Bhattacharya.
3. Hybrid Controls of Flexible Arm Manipulator Software developed for single link manipulator with linearised model; further research is going on to take into account multiple link and nonlinear hierarchic control scheme, Dr. Bishakh Bhattacharya.
4. Modeling of an Annular Combustor, Dr. Bishakh Bhattacharya. (being used by GTRE, Bangalore)

Industry Visited

CENTRE FOR LASER TECHNOLOGY

1. 'Ring Laser Gyro', delivered two talks in the 'Workshop on new avionics technologies' at H.A.L, Korwa, U.P, on 14th and 15th November 2003, S. Sivaprakasam.

DEPARTMENT OF AEROSPACE ENGINEERING

1. NAL Bangalore, 27 Oct. 2003. Kunal Ghosh.
2. Coordinated HAL Training Programme for HAL Management Trainees (Technical) from August-4- Nov.28,2203 and also delivered Lectures organized at IIT Kanpur, N.G.R. Iyengar. NAL, Bangalore, Instrumentation of HANSA Aircraft, August 2003, A K Ghosh.
3. BEL, Bangalore for Handing over of deliverables August 2003, A K Ghosh.
4. CABS, Bangalore, Review Meeting on Financial grant (ARDB) for Flight Experiments October 2003, A K Ghosh.
5. ARDE, PUNE, Development of Neural Model November, 2003, A K Ghosh.
6. ARDE, Pune, Expert member for joint development of Glide bomb by South Africa and India -Peer Review, January 2004, A K Ghosh.
7. ARDE, Pune, Experts member for Joint Development of TCS for unguided rocket in collaboration with Israel Feb 2004, A K Ghosh.
8. HEMRL, IAT, Pune and RRL Bhubaneswar, To discuss about collaborating research work in the field of combustion & allied fields, To discuss about collaborating research work in the field of combustion & allied fields, D. P. Mishra.

DEPARTMENT OF CHEMICAL ENGINEERING

1. IIT Powai, Mumbai. DST PAC meeting. Research Project awarded for Rs. 16,36,800/=, S. Garg.
2. KVIC annual review meeting, Mumbai, January 16-17, 2004. (Ongoing funded research project), S. Garg.
3. BARC, ongoing project, June 3 & 4th, 2003, A. Khanna and P. Munshi.

4. Indo Gulf Fertilizer, Sultanpur for prospective project on Ammonia Plant Simulation, February 13th, 2003, A. Khanna.
5. GAIL, PATA, June 2003, D. Kunzru.
6. DRDL, Hyderabad, Feb. 2004, D. Kunzru.
7. National Chemical Laboratory, Pune; Visited for one week during February 2004 and gave a series of lectures on 'Introduction to polymer physics', V. Shankar.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

1. Invited by CEO for a technical, discussion, ESSPL, Bhubaneswar, Dec 2003, R.K Ghosh.
2. Satyam Computer Sevices, Hyderabad, May-June 2003, T.V Prabhakar.
3. IIT Delhi, Oct 2003, Dheeraj Sanghi.
4. IIT Chennai, Sep 2003, Dheeraj Sanghi.
5. IISc Bangalore, Sep 2003, Dheeraj Sanghi.
6. TIFR Mumbai, Jan 2004, Dheeraj Sanghi.
7. IIIT Allahabad, Sep 2003, Dheeraj Sanghi.
8. IIIT, Hyderabad, Aug 2003, Dheeraj Sanghi.
9. SAIL, Hyderabad, Aug 2003, Dheeraj Sanghi.
10. Dheeraj Sanghi, AK College of Engineering, Oct 2003 Srivilliputur TN CDAC, Hyderabad July 2003, CDAC Pune July 2003, Dheeraj Sanghi.
11. Dheeraj Sanghi, Wibhu Networks Pune, July 2003 Intel Delhi Dec 2003, EdCIL Noida Mar 2004, Dheeraj Sanghi.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. CAT, Indore, for DGFS Student and exploring possible avenues for collaboration, December, 2003, P. Sensarma.
2. Visited Asian Institute of Thailand during 20-22 August 2003 and 1-19 December 2003 to deliver invited lectures in the short term course on 'Demand Side

management and Distribution Automation’ and ‘Power System Operation Automation & Management’, respectively. Also visited this institute during 24-26 September 2003 and 14-16 January 2004 to attend a project review meeting and attend an International conference, respectively, S.C. Srivastava.

3. Visited IOE Tribhuvan university, Nepal during 27th Sept. to 1st Oct. 2003 to deliver invited lectures to their Masters students in the Electrical Eng. Department, S.C. Srivastava.
4. Visited NIT Kurukshetra on 28th November 2003 to deliver invited lectures during ‘POWERFEST 2003’ conference, S.C. Srivastava.
5. Visited Indian Institute of Science, Bangalore in Aug. 2003 as an examiner of MSc (Engg.) Thesis, S.P. Das.
6. Visited General Electric, Bangalore in Aug. 2003. To have general interaction. Indian Institute of Science, Bangalore in Jan. 2004 as an examiner of Ph.D. Thesis, S.P. Das.
7. Visited BHEL, Hyderabad in Nov. 2003 as the Chairman, Preliminary Design Review and Critical Design Review Committees (May 2001 and Nov. 2003) for review of ADA, Bangalore sponsored project to BHEL, Hyderabad. The project was on The development of compact 40 kVA, 400 Hz generator for Light Combat Aircraft, S.P. Das.
8. ADE, Bangalore in Jan. 2004 to have general discussion, S.P. Das.
9. Visited Power Grid Corporation of India, Bhauti, Kanpur with UG/PG Students (EE330, EE630, EE632), S.N. Singh.
10. Visited Centre of Advanced Technology, Indore (6/2/2004) for discussion related to projects, S.N. Singh.
11. Visited Department of Electrical and Computer Engineering, Clemson University, Clemson, South Carolina, USA. To carry out research activities under the ongoing Indo-US collaborative project sponsored by DST and NSF [DST/EE/20000160]. 07-12 October 2003, S. Kar.
12. Visited to SAMTEL factory in Ghaziabad in connection to CRT Tubes, Nandini Gupta.
13. Visited M/s Wibhu Technologies, Pune in March 2004 to deliver a talk on antenna for wireless LAN applications, A. R. Harish.

14. Visited AICTE, New Delhi as an expert on making the syllabus for AMIE courses on Electrical Engineering, Nov. 2003, Anjan K. Ghosh.
15. Visited HBTI Kanpur as an AICTE expert for evaluating AICTE proposals, Dec. 2003, Anjan K. Ghosh.
16. Visited UP Tech University, Lucknow to attend a seminar organized by AICTE on evaluating Technical Colleges, Dec. 2003, Anjan K. Ghosh.
17. Visited BHEL R&D Centre in Hyderabad in March 2004, Anjan K. Ghosh.
18. Visited, Faculty of Engineering, University of Malaysia, Sarawak, December 15, 2003-December 26, 2003, Dr. S. Qureshi.
19. Visited Interra IT Pvt. Ltd., Noida several times during Feb. 2003 to Feb. 2004, R. P. Gupta.
20. Visited M/s Cypress Semiconductor Inc., Bangalore, from June 2003-July 2003, Animesh Biswas.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. Invited Talk on Entrepreneurship and Marketing at Gaur Hari Singhania Institute of Management and Research, Kanpur, March 2004, S.Swami.
2. Evaluation of IT System: A case study, IIIT Hyderabad, Feb. 13, 2004, V. Bansal, and Himanshu Sadana.
3. Evaluation, Rating and Certification of Online Documents, IIIT Hyderabad, Faculty Workshop SAP, Bangalore Feb. 23-27, SAP Lab India, V. Bansal and Mayank.
4. Visited BILT, Gurgaon and Siemens Pvt. Ltd. to study their ERP implementations, V. Bansal.
5. Issues in forecasting Electricity Demand in South Asian Countries SARI/E Workshop on Advanced Demand Forecasting and Modeling Techniques, Pokhra, Nepal, 5 - 9 Jan. 2004, Anoop Singh.
6. Forecasting Electricity Demand in South Asian Countries – Results SARI/E Workshop on Advanced Demand Forecasting and Modeling Techniques, Pokhra, Nepal, 5 - 9 Jan. 2004, Anoop Singh.
7. Emerging Competitive Scenario in Indian Power Sector, Seminar at Indira Gandhi Institute of Development Research (IGIDR), Mumbai, 12th Dec. 2003, Anoop Singh.

8. Regulatory Issues in Power Sector Restructuring and Power Sector Scenario of India; delivered two lectures at IIM, Lucknow for Training Program on General Management for NTPC Managers, 14th April 2003, Anoop Singh.
9. Regulatory & Policy Developments in Indian Power Sector lecture in QIP sponsored short-term course on Electric Power System Operation and Management Restructured Environment, July 21-25, 2003, Anoop Singh.
10. Economics of Regulation, Guest Lecture, Dept. of Electrical Engg., IITK, 9th April 2003, Anoop Singh.
11. Invited lecture at National University of Singapore, Information systems Dept, 26/12/03 on New research directions for KM in the social sector-Knowledge exchange experience at Digital Mandi, Jayanta Chatterjee.
12. Invited lecture at Conference of Agricultural extension officers organized by National Institute of Agricultural Marketing, manage.com –10th Oct, 03, Jayanta Chatterjee.
13. Invited talk at Dept of Biotechnology on Business Incubation at biotechnology Parks. – 18th July, 03, Jayanta Chatterjee.
14. Demonstrated the software and transaction technologies developed for Medialab Asia KL hub at www.digitalmandi.net (i) 'Web and IVR/CTI based agro-commodity trading with integrated back end system' (ii)'Platform independent web to mobile SMS based bi-directional knowledge exchange using adaptable business rules' (iii) User co-creation of electronic content for rural development applications. 5(c)- Industries and organizations visited on professional engagement: Larsen & Tubro, Indian Airlines, NAFED, CII, Hughes ECL, Siemens Ltd, Lego-serious play APAC (Singapore), Jayanta Chatterjee.
15. Institute Visited: National University of Singapore, Hong Kong Poly University, Nanyang Technical University, Jamia Milia Islamia University, UP state Institute of Rural development, Jayanta Chatterjee.
16. Appointed Adjunct Professor at the Industrial Systems Engineering Dept. of Hong Kong, Poly University and on the International Research Advisory body of the KM laboratory at National University of Singapore and International Advisory body of Institute of Information and knowledge Management, Straits Knowledge, Singapore, Jayanta Chatterjee.
17. Appointed Lead researcher of The School of Organizational learning and transformation, at the Global Institute of Flexible Systems Management, Jayanta Chatterjee.

18. Awarded a 500\$ prize for the Best paper published in the Flexible Systems Journal at the 3rd GLOGIFT Conference, March 2004.
19. Three short term (6days) courses organized for 110n L&T Senior Managers on 'Competitive advantage creation through Technology and Innovation' as part of the Technology Leadership Program, Jayanta Chatterjee.
20. One day workshop for Block development and Mandi Parishad officers of UP on Information design for electronic trading and NGT for Action Planning, Jayanta Chatterjee.
21. Retention in the Times of Downsizing and Restructuring: End of HRM? Seminar On Talent Hunt & Retention Strategies – Indian Experiences GHSIMR & NIPM, Kanpur, Feb. 15,2004, Rahul Varman.
22. Organised workshop: One-Day Workshop on Learning by Doing Engineering, Desing, & Management Education IIT Kanpur, August 9, 2003, A.P. Sinha.

DEPARTMENT OF MATHEMATICS

1. Visited the Institute of Statistics, Munich University, Germany in May 2003, in connection with his research activities, Shalabh.
2. Meeting of the International Statistical Institute (The Netherlands) at Berlin Germany in August, 2003, Shalabh.
3. Visited Katholieke University Leuven, Belgium in December 2003, for collaborative research, Misra, N.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Indian Institute of Advanced Studies, Shimla, 17 April 2003, R. Balasubramaniam.
2. Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur, June 11-12, 2003, R. Balasubramaniam.
3. Rishi Valley School, Madanapalle, June 23-24, 2003, R. Balasubramaniam.
4. General Motors Research and Development Center, Warren, MI, USA, October 9-10, 2003, R. Balasubramaniam.
5. Indian Institute of Science, Metallurgy Department, Bangalore, November 10, 2003, R. Balasubramaniam.
6. General Electric Corporate Research and Development, Bangalore, November 24, 2003, R. Balasubramaniam.

7. Shiram Pistons Pvt. Limited, Ghaziabad, January 31, 2004, R. Balasubramaniam.
8. Defence Metallurgical Research Laboratory, Hyderabad, February 4, 2004, R. Balasubramaniam.
9. University of Leeds, UK, May 2003, Bikramjit Basu.
10. University of Warwick, UK, May-July, 2003, Bikramjit Basu.
11. University of Cambridge, UK, June 2003, Bikramjit Basu.
12. University of Oxford, July 2003, Bikramjit Basu.
13. A&T North Carolina State University, Greensboro, North Carolina, May 2003, Monica Katiyar and Deepak Gupta.
14. Visiting Faculty, Center Des Materiaux, Ecole des Mines de Paris, July 2003, Anish Upadhyaya.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Visited on August 2003 to December 2003, Adjunct Professor, Mewbourne School of Petroleum and Geological Engineering and Department of Aerospace and Mechanical Engineering, University of Oklahoma, USA, K.Muralidhar.
2. Visited TAT A STEEL, Jamshedpur during September 28 - October 4, 2003, N.V.Reddy.
3. AVL Research and Development Center, Graz, Austria, 15th May, 2003, Avinash Kumar Agarwal.
4. Mahatma Ghandhi Institute of Rural Industrialization, Wardha, July 2003, Avinash Kumar Agarwal.
5. Khadi and Village Industries Commission, Mumbai, January 2004, Avinash Kumar Agarwal.
6. General Motors Global Research and Development Center, Warren, Detroit, 12th March, 2004, Avinash Kumar Agarwal.

DEPARTMENT OF PHYSICS

1. Samtel Technology Lab, Ghaziabad, S. Kumar.

(D) PATENTS

DEPARTMENT OF AEROSPACE ENGINEERING

1. Applied for Tandoor Chulla, D. P. Mishra

DEPARTMENT OF CHEMICAL ENGINEERING

1. Pressure swing adsorption; Patent No. 705/DEL/2003, D.P. Rao.
2. A novel rotating bed contactor, Patent No. 356/DEL/2004, D.P. Rao.

DEPARTMENT OF CHEMISTRY

1. Method of preparing magneto-conducting polymer material composites with magnetic and electrically conducting features. Indian Patent No. 859/Del/(2000). Granted US Patent No: 6,627,101 B2, dated Sep.30, 2003, S. Sundar Manoharan and Manju Lata Rao.
2. Magnetoresistive CrO₂ – Polymer Composite Blends, Indian Patent file No. 934/Del/(2000) also as, US Patent file No. 09/829414 Granted, S. Sundar Manoharan.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Anaesthesia Monitor: Provisional Patent No. 167/DEL/2004, G.C. Ray.
2. Application with TIFAC, Y.N. Singh.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Rubber pressure molding, Accepted, Prashant Kumar with K.K. Kar

(E) AWARDS AND HONOURS

DEPARTMENT OF AEROSPACE ENGINEERING

1. Fellow of Indian National Academy Engineering, C.Venkatesan.
2. Swarnajayanti Fellowship, 2003, DST, Sanjay Mittal.
3. Member of the Organising Committee of the Indo-US Frontiers of Science Symposium to be Conducted in January 2005 by the Indo-US Forum, DST, Sanjay Mittal.

4. Aerospace Divisional Award from Institution of Engineering, Chandra Shekhar Upadhyay

DEPARTMENT OF CHEMICAL ENGINEERING

1. Fellow, Indian National Science Academy (elected in 2003), A. Sharma.
2. Fellow, Indian National Academy of Engineering (elected in 2003), A. Sharma.
3. Herdillia Award of the Indian Institute of Chemical Engineers for excellence in basic research (2003), A. Sharma.
4. Shanti Swarup Bhatnagar Prize in Engineering Sciences (received in July 2003), A. Sharma.

DEPARTMENT OF CHEMISTRY

1. Awarded Swarnajayanti Fellowship, F. A. Khan.
2. Astrazeneca Technology Innovation Award, H. Ila.
3. Acharya J. C. Ghosh Memorial Lecture and Medal by Indian Chemical Society, H. Ila.
4. Global Indus Techno-innovators award for research contributions in Nanomaterials and devices, instituted by Indian Business club at Massachusetts Institute of Technology, Boston USA, November 2003, S. Sundar Manoharan.
5. JWT Jones Fellowship, Royal Society of Chemistry (2004), Sandeep Verma.
6. CRSI Medal (Bronze) 2003, Prof. Vinod Kumar Singh.
7. Chairperson "Women Scientist Scheme", (Chemical Science), Department of Science and Technology, New Delhi, H. Ila.
8. Nominated as member of Science and Engineering Research Cell (SERC), Department of Science and Technology, New Delhi, March 2004-2007, H. Ila.
9. Member of CSIR Committee for Chemical Science, H. Ila.

DEPARTMENT OF CIVIL ENGINEERING

1. G. jointly award IGS – Shri R.N. Prasad Biennial prize for the best paper on Slope Stability and Land Slides for their paper published in Indian Geotechnical journal in Dec. 2003 at the IGS Annual Conference held in Roorkee, Basudhar, P.K. and Bhattacharyya.

2. Nominated as Associate Editor of ASCE Journal of Structural Engineering effective from June, 2004, Gupta, V.K.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

1. R.K Ghosh, Associate Editor of International Journal on Education and Information Technologies (JEIT), ISSN 1548-3401, Jan 2004 <http://itpublish.org/>.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Awarded a cash prize of Rs.1000/- and a Certificate for the Best Poster Paper entitled Effect of the CN-PPV Layer on the performance of PPV/CN-PPV Polymer LED at IWPSD 2003 held at IITM from 16 – 20 Dec 2003, R.S. Anand, A. Awasthi, J. Narain.
2. Invited to join Editorial Board of the ‘International Journal of Emerging Electric Power Systems (IJEEPS) (Berkley Electronic Press), S.C. Srivastava.
3. Invited to be an Editor of the Narosha Publisher’s International Series on ‘Power & Energy’, S.C. Srivastava.
4. Stochastic filtering and and Speech Enhancement using a Recurrent Quantum Neural Network, **Best paper of the conference**, International Conference on Intelligent Sensors and Information Processing, ICISIP-04, Chennai, 4-7 January, Laxmidhar Behera and Bharat Sundaram.
5. Approaches to fragment assembly for DNA sequencing, **Best Student paper**, HiPC Workshop on Soft Computing, 2003, Debashis Dash, Rishi Dhingra and Laxmidhar Behera.
6. Awarded the Fulbright Scholarship by the United States Department of State for visiting the University of Illinois at Urbana-Champaign between May-July, 2003, Arindam Ghosh.
7. Won Indian National Academy Young Engineers Award 2003. Awarded by Indian National Academy, S.P. Das.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. Reviewed papers for the following journals: Social Studies of Sciences, Population Review (member of Scientific Review Board), Demography India, A. K. Sharma.
2. Expert, <http://www.sammaditthi.com>, Online Journal of Sammaditthi Social Science Research, 2003, A. K. Sharma.

3. Member of Scientific Review Board, Population Review, <http://www.populationreview.com/>, 20 Feb. 2004, A. K. Sharma.
4. Received Distinguished Teacher Award, IIT Kanpur for the year 2003, September 5, 2003, Lila Krishnan.

DEPARTMENT OF MATHEMATICS

1. C.L. Chandana Mathematics Awards 2003 by Canadian World Mathematics Foundation, Misra, N.
2. Elected as a Fellow of the Royal Statistical Society, London in the year 2003, Kundu, D.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Editorial Board Member, International Journal of Corrosion Science, Engineering and Technology (former British Corrosion Journal), The Institute of Materials, London, R. Balasubramaniam.
2. Editorial Board Member, Indian Journal of History of Science, Indian National Science Academy, New Delhi, India, R. Balasubramaniam.
3. R. L. Thakur Memorial Award–2003 by Indian Ceramics Society, Bikramjit Basu.
4. BOYSCAST (Better Opportunities for Young Scientists in Chosen Areas of Science and Technology) fellow, Department of Science and Technology, Government of India, 2002-2003, Bikramjit Basu.
5. R.K. Ray and K.A. Padmanabhan, Gouthama.
6. TEM Study of the Role of Precipitate Particles in a Quasi-Single Phase Superplastic Alloy, Gouthama.
7. Presented at EMSI-2003, CPRI, Shimla, April, 2003, Gouthama.
8. ‘Best Oral Presentation Award’ for the Materials Science Category at the conference from amongst 70 oral presentations, Gouthama.
9. Elected as a member of the Continuous casting operating committee (CCOC), AIST, USA, Dipak Mazumdar.

10. Elected as an Editor of The Transactions of The Indian Institute of Metals, Dipak Mazumdar.
11. Consultant to R&D division of Tata Steel (2003-2005), R.K. Ray.
12. Young Scientist Award 2003-2004 by UP Council of Science & Technology, Anish Upadhaya.
13. Young Metallurgist of the Year (2003) Award by the Ministry of Steels and Indian Institute of Metals (IIM), Anish Upadhaya.
14. TMS Foundation's R. Arora International Award-2003 for Materials Science and Engineering by The Minerals, Metals & Materials, Warrendale, USA, 2003, Anish Upadhaya.
15. Invited to serve as a member of the Editorial Advisory Board of the 'Transactions of the Indian Ceramic Society' for two years, May 2003, Anish Upadhaya.
16. Continue as member governing council of Powder Metallurgy Associate of India (PMAI), Anish Upadhaya.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Elected as the Fellow of the Indian National Academy of Engineering, G. Biswas.
2. Best Teacher Award for TA201N - Introduction to Manufacturing Processes (Institute Core Course), 2nd semester, 2002-2003, N.V.Reddy.
3. Best Tutor Award for TAI0IN - Engineering Graphics (Institute Core Course), 2nd semester, 2002-2003, N.V.Reddy.
4. Best Teacher Award for ME663 - Metal Forming (PG compulsory and UG Elective). First Semester, 2003- 2004, N.V.Reddy.
5. Humboldt Fellowship, Germany, P.K.Panigrahi.
6. Selected in the Technical Committee of IASTED, World modeling and simulation forum for 2003-04, Bishakh Bhattacharya.
7. Fellow, International Society for Genetic and Evolutionary Algorithms (ISGEC), since 2003, K.Deb.
8. Fast Breaking Paper Award in Engineering, ISI Web of Science's Essential Science Indicators (ESI), Feb 2004, K.Deb.

9. Fridrich Wilhelm Bessel Research Award, Alexander von Humboldt Foundation, Germany May - November, 2003, K.Deb.
10. Associate Editor, IEEE Transactions on Evolutionary Computation Journal, IEEE 2002-2004, K.Deb.
11. Associate Editor, Evolutionary Computation Journal, MIT Press 2002-2007, K.Deb.
12. Editorial Board Member, Engineering Optimization Journal, Taylor and Francis 2002-2004, K.Deb.
13. Editorial Board Member, Genetic Programming and Evolvable Machines, 2003-2006, K.Deb.
14. Member of The Editorial Board of International Journal of Manufacturing Technology and Management, Inderscience Publishers, U.K., V.K. Jain.
15. Member Of. The Advisory committee of International Journal of Advanced Manufacturing Technology, Springer Verlag, London (U.K.), V.K .Jain.
16. Member of the editorial board of Journal of Automobile Engineering Proceedings of IMechE, Part-D, Published by Institution of Mechanical Engineers, London, UK, Avinash Kumar Agarwal.
17. Guest Editor for a Special Issue on Alternative Fuels, for the Journal of Automobile Engineering, Published by Institution of Mechanical Engineers, London, UK, Scheduled for First Quarter of 2005, Avinash Kumar Agarwal.
18. Listed in Marquis Who's Who is Science and Engineering (2003-2004 edition), Avinash Kumar Agarwal.
19. Member of DST Expert group on Alternative Fuels and Retrofitting constituted by Government of India, Avinash Kumar Agarwal.
20. Reviewer for ASME Transactions Journal Of Engineering For Gas Turbine And Power, Avinash Kumar Agarwal.
21. Reviewer for ASME. ICED Spring and Fall Conferences 2003, Avinash Kumar Agarwal.

DEPARTMENT OF PHYSICS

1. Elected FELLOW of the Indian Academy of Sciences, Bangalore, D. Chowdhury.
2. Distinguished Teacher's Award, IIT Kanpur, 2003, H.C. Verma.

(E) CONTINUING EDUCATION ACTIVITIES

DEPARTMENT OF AEROSPACE ENGINEERING

1. Delivered Lectures in the Helicopter Technology Programme from Jan.4- April 28,2004 for HAL and Armed Forces Engineers organized at IIT Kanpur, N.G.R. Iyengar.
2. Development & Aerospace Information Panel QIP Course on "Renewable Energy & Alternative Fuels", Dec. 1-5, 2003;One of the Coordinators, Kunal Ghosh.
3. Organised the one-semester- Certificate Program on Helicopter Technology for sponsored candidates from Army, Air force and HAL. Second batch of participants successfully completed the program in April 2003, C.Venkatesan.
4. Instructor for a CEP Course titled, "Flight Identification Methods" conducted at IIT Mumbai-(19th – 21st January, 2004), A K Ghosh.
5. Combustion generated emission & its control, QIP, 1st - 5th March 2004, 28, IIT, Kanpur, D. P. Mishra.
6. HAL Management Trainee Programe, R. K. Sullerey.
7. Taught part of course on "Aircraft Structural Analysis" to the Graduate Engineering Trainees from HAL. Also taught part of course on Vibration Analysis for the "Helicopter Technology" course held from January 2004 to May 2004, C. S. Upadhyay.

DEPARTMENT OF CHEMICAL ENGINEERING

1. 'Process Safety and Inherently Safer Design', Sultan Qaboos University, Muscat, Oman May 2001, J.P. Gupta.
2. 'Inherent Safety, Health and Environment', Loughborough University, Loughborough, UK, J.P. Gupta.

DEPARTMENT OF CIVIL ENGINEERING

1. Lectured on Earthquake resistant design of steel connections in the One-Semester (31 July-5 Dec., 2003) certificate programme on Earthquake Resistant Design held in the Dept. of Civil Engg., I.I.T. Kanpur under the National Programme on Earthquake Engg. Education, Chakrabarti, S.K.
2. Recent Trends in Bituminous Mix Design, self-sponsored, IIT Kanpur, August 11-13, 2003, Numbers of participants: 31, A. Das.
3. Modern Trends in Pavement and Traffic Engineering, QIP, IIT Kanpur, March 28-31, 2004, Number of participants: 19, A.Das.
4. Organized and coordinated a Workshop on, INTERLINKING OF INDIAN RIVERS, at I.I.T. Kanpur on Sept. 20, 2003, Datta, Bithin.
5. NPEEE Supported One-Semester Certificate Programme in Earthquake Resistant Design (July – December 2003), IIT Kanpur, Jain, S.K.
6. Seismic Design of Reinforced Concrete Buildings (January 9 – 10, 2004, 140 participants, for Govt of Delhi; 2 days), Delhi, Jain, S.K.
7. Workshop on IS:13920, July 6, 2003 (one day); about 70 participants, Jain, S.K.
8. Workshop on IS:1893, Ahmedabad, Jain, S.K.
9. Training of Municipal Engineers in Review of Building Plans for Seismic Safety, (November 14-15, 2003) Ahmedabad, Jain, S.K.
10. Workshop for Earthquake Engineering Curriculum in Polytechnics of UP and Uttaranchal (29-30 July 2003), IIT Kanpur, Jain, S.K.
11. National Workshop on Introducing Earthquake Engineering in Civil Engineering Curriculum (August 22-23, 2003), IIT Kanpur, Jain, S.K.
12. Review Workshop for Resource Materials in Earthquake Engineering Education (25-29 August 2003), IIT Kanpur, Jain, S.K.
13. Curriculum Workshop for Architectural Programme in Colleges of Gujarat (October 21, 2003), Ahmedabad, Jain, S.K.
14. ‘Concrete structures and durability’, Invited lectures at the one-day workshop at Talcher Thermal Power Station, National Thermal Power Corporation, Talcher, Orissa, February 19th, 2004, Misra Sudhir.

15. 'Basic concrete engineering' National Seminar on Advances in Building Construction and Rehabilitation Technology, Organized by the Institute Works Department, IIT Kanpur, March 2nd – 4th, 2004, Misra Sudhir.
16. Short Course on Introduction to Earthquake Engineering for engineering college and polytechnic teachers of State of Gujarat, Ahmedabad in July 2003, (24 participants for GSDMA), I.I.T.Kanpur in August 2003 (19 participants under NPEEE), Murty, C.V.R.
17. Taught in the AICTE_ISTE short term course on Design and Disaster Mitigation and Management of Structures conducted for teachers of engineering colleges and polytechnics by the Gandhi Institute of Technology and Management at Visakhapatnam on 15-16 April 2004, Murty, C.V.R.
18. Sensitisation of Architects of Indian Institute of Architects 06 January 2004 at New Delhi, 14 April 2004 at Jammu, Murty, C.V.R.
19. Sensitisation of Engineers of Government of NCT Delhi, 09 January 2004 at New Delhi, Murty, C.V.R.
20. Launch of Urban Earthquake Vulnerability Reduction Program, of Ministry of Home Affairs, GoI, New Delhi, 12 January 2004 in State of Maharashtra at Pune 13 January 2004 at State of Uttar Pradesh at Lucknow, Murty, C.V.R.
21. Training of Trainers by National Center for Disaster Management, New Delhi.
22. 28 July 2003 at New Delhi, 16 September 2003 at New Delhi, Murty, C.V.R.
23. Conducted Summer Camp 2003, for UG CE students from across the country, Industry sponsored, Lohani B.
24. Preparation for the Summer Camp 2004 including the followings; contacting various colleges for participation, contacting eminent persons in CE for guest speakers contacting different government and private agencies for sponsorship, Mohapatra, P.K.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. QIP Sponsored Summer School: Real-time Signal Processing and neural Computation using DSP Work Station, IIT Kanpur, July 7-19, 2003, G.C. Ray.
2. Self-sponsored, Real-time Signal Processing and neural Computation using DSP Work Station, IIT Kanpur, Sept. 29 – Oct. 4, 2003, G.C. Ray.
3. Self-sponsored course on Hands on Experience with DSP Work Station, Winter School, December 1-6, 2003, IIT Kanpur, G.C. Ray.

4. QIP Course : Recent trends in Displays : Organic Light emitting diodes, March 15-19, 2004, B. Mazhari.
5. Organized a Short term course on Electric Power System Operation and Management in Restructured Environment, QIP sponsored, IIT Kanpur, 21-25 July 2003 (Participants: Academics- 30, Industry- 23), S.N. Singh.
6. Organised Workshop-cum-Technology Dedication of Power Distribution Automation, Indian Institute of Technology Kanpur, India, February 22-23, 2003, R.P. Gupta.
7. Self sponsored short course on Trends in Techniques and Practices in Sensors and Instrumentation, Sept. 8-12, 2003, Anjan K. Ghosh.
8. Organizing committee members in Joint Indo US Science and Technology Forum on Futuristic Manufacturing, IIT Kanpur, March 2004, Anjan K. Ghosh.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. Sustainable Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26 – July 05, 2003, A. K. Sharma.
2. Social Indicators of Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 16-July 05, 2003, A. K. Sharma.
3. Role of NGOs in Improving the Environment, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26- July 05, 2003, A. K. Sharma.
4. PRA as a Tool for Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26-July 05, 2003, A.K. Sharma.
5. Delivered a lecture on A qualitative study of everyday meaning of mental health: Some insights regarding common-sense and social representations in the 9th UGC-ASC Refresher Course in Psychology on Human Behaviour: Research Issues and Insights, held at Department of Psychology, University of Allahabad from September 6-24, 2003, Shikha Dixit.
6. Organised a two day Workshop (along with Dr. K.G. Kshirsagar) on Intellectual Property Rights, Gokhale Institute of Politics and Economics, Pune, sponsored by the Ministry of Human Resource Development, New Delhi, March 27-28, 2004, P. M. Prasad.

7. Lecture on Zoning Issues in Environmental Problems for the participants of UGC Refresher Course on Urban and Rural Development, Gokhale Institute of Politics and Economics, Pune, August 29, 2003, P. M. Prasad.
8. Participated in the Course Criminology and Forensic Science at National Institute of Criminology and Forensic Science, Delhi, During, September 2- 22, 2003, P. M. Prasad.
9. Organized the Linguistics Session at the 27th All India Social Science Congress, at IIT Kharagpur, December 3- 7, 2003, B. N. Patnaik.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Gave lectures of Design of Miniature Cryocoolers, Experimental Techniques, and Inverse Determination of Local Heat Transfer Coefficient, in the QIP-sponsored course entitled CAD of Thermal Systems, July 2003, K.Muralidhar.
2. Short term course on CAD of Thermal Systems, Period: 14th July to 19th July 2003, Number of participants: 45, P.K.Panigrahi.
3. Organized a five-day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 1, for TISCO Engineers, at IIT Kanpur, July 14-18, 2003, P.M.Dixit.
4. Organized a five day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 2, for TISCO Engineers, at TISCO Jamshedpur, September 29-October 3, 2003, P.M.Dixit.
5. Organized a five day course (jointly with Dr. N.V. Reddy) Finite Element Applications in Metal Forming: Part 3, for TISCO Engineers, at IIT Kanpur, December 08-12, 2003, P.M.Dixit.
6. A one-week short course sponsored by Quality Improvement Program for engineering college teachers and industry entitled Renewable Energies and Alternative Fuels 1 5t to 5th December 2003, attended by 30 faculty members from engineering colleges, Dr. Avinash Kumar Agarwal.
7. Summer School at IACS, Kolkata, A.K.Mallik
8. Winter School at ISI, Kolkata, A.K.Mallik

DEPARTMENT OF PHYSICS

1. Delivered lectures on Computational Statistical Physics for nine hours at the sERC on Statistical Physics, TIFR, Mumbai (2004), D. Chowdhury.
2. Latest development in Physics IIT Kanpur Sept 15-19, 2003, P. Chand & K. Shahi.
3. Developed and taught two new courses (i) Physics of Information Processing; (ii) Nonlinear and Quantum Optics, H. Wanare.
4. Gave lectures to teachers of Kendriya Vidyalaya in Electrodynamics – Teaching, H. Wanare.
5. Closely involved in Restructuring of the Physics Syllabus of the CBSE, H. Wanare.

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

DEPARTMENT OF AEROSPACE ENGINEERING

1. Participated in 1st AR&DB Manpower Meeting, Center for Airborne Systems (CABS), Bangalore, 27 Oct.2003, Kunal Ghosh.
2. Invited to attend and present our efforts in initiating the Helicopter Technology program at IIT Kanpur at the one-day session organized by INAE at Delhi in April 2003, C. Venkatesan.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Participated in 3G UMTS Standardization meetings representing Philips Research Labs., USA in May 2001, June 2001 and Nov. 2001, Ravi Motwani.
2. Visited Interra Software (India) Pvt. Ltd., Noida for interaction in strategic planning and technology initiatives, May – July, 2001, Sachchidanand.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. Institute of Management, Patna, During Summer 2001, Sharan Raka, L.N. Mishra.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. General Motors Research and Development Symposium, November 10, 2003, Bangalore, R. Balasubramaniam.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Commercialisation of the indigenously developed Distribution Automation components under Technology Development Mission on Power Distribution Automation at IIT Kanpur is an important aspect. The above objective can be easily achieved through the demonstration project at pilot level in the utility environment. To realize the above demonstration project, while IIT Kanpur will provide its expertise to develop and integrate the system, it will take help of other industries such as Indian Telephone Industries, Raebareli and Interra Software (India), Noida for executing specific tasks in the project. These may include providing necessary components and equipments along with its installation and commissioning on the site for the implementation of the Distribution Automation project. It may be noted that the INTERRA Software (India) Limited and Indian Telephone Industry, Raebareli are already involved and signed MOU with IIT Kanpur in the automation activities of distribution system, R.P. Gupta.

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

DEPARTMENT OF AEROSPACE ENGINEERING

1. Co-Coordinator of "AR&DB Structures Panel Review Meeting" held at IIT Kanpur from 30/3/04 to 1/3/04, C. S. Upadhyay.

DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO-ENGINEERING

1. Nominated as an expert member, Board of studies for the M.Sc. program in Biotechnology in CSJM University, Kanpur, S.Ganesh.
2. Review two research papers for the journal, Genomics (2003 and 2004) and one paper for the journal Journal of Clinical Investigations (2003), S.Ganesh.
3. My student Mr. KNK Harekrishnen won the best poster prize on peptide models for mammalian selenoproteins, Gurunath.
4. Organized Bioinformatics and Computational Biology session as part of the International Conference on Mathematical Biology in Feb 2004, along with Balaji Prakash, R. Sankararamakrishnan.
5. Member of Board of studies of Bioinformatics, Chhatrapati Shahu Ji Maharaj University, Kanpur, R. Sankararamakrishnan.

6. Reviewed manuscripts for the journals Current Science, Indian Journal of Chemistry Section A, Indian Journal of Chemistry Section B, R. Sankararamakrishnan.
7. Refresher course in Molecular & Developmental Genetics, Sponsor: Indian Academy of Sciences, Bangalore, Conducted at: Cytogenetics laboratory, Department of Zoology, Banaras Hindu University, Varanasi 221 005 Date: July 2-14, 2003, Instructor, K. Subramaniam.
8. International workshop on Cell Biology, Institute for Bioinformatics and Applied Biotechnology, Bangalore Date: February 28 – March 7, 2004, Instructor, K. Subramaniam.
9. Member of the Task Force meeting on HRD programs organized by Department of Biotechnology at New Delhi on 4th June 2003, P. Sinha.
10. Attended First Meeting of the Members of Society of Biotech Park, Lucknow held on 22nd Feb'2004 at the Biotech Park site Office, and Lucknow, P. Sinha.
11. Invited talk in seminar (Title of Talk- Growth & Potential of Biotechnology and Bioengineering Sciences) 24th April'04 at CMS-Auditorium, Lucknow, P. Sinha.
12. Organized Biotechnology Track of the TIE UP CALLING 2004 on 21st Feb'2004 at Methodist High School, 73, Cantonment, Kanpur 208004, P. Sinha.
13. Organized Short-term laboratory workshop in genetics and molecular biology at IIT Kanpur, 18th to 25th October 2003, P. Sinha.

Research Grants Received at BSBE

1. Department of Science & Technology: Rs 9.69 Lacs Title: Cloning, Expression, Purification and Crystallization of Era, a GTP binding protein from Helicobacter Pylori' from 2003-2006, B.Prakash.
2. Ministry of Human Resource Development R& D grant: Rs. 15 Lacs. Title: Structural investigations on Bex, a GTP binding protein from Bacillus Subtilus' from 2003-2006, B.Prakash.
3. International Senior Research Fellowship award from Wellcome Trust, United Kingdom: Approx. Rs 1.96 Crores. Title: Structural Studies on GTPases and EDG Family G Protein-Coupled Receptor. From 2004 - 2009, B.Prakash.

4. DST-Fast Track: Molecular analysis of Lafora disease patients from Indian population, Rs. 10 lakhs, Jan 2004-Dec. 2006, Undertaken New Project S.Ganesh.
5. DBT research project Isolation and characterization of microbial strains degrading 234 nitro-toluene April 2004-March 2006. Rs. 10.14 lakhs, R. Gurunath.

DEPARTMENT OF CHEMICAL ENGINEERING

1. As AICTE expert for National Board of Accrediation to Sant Longowal Institute of Engineering & Technology Longowal, November 20th, 21st and 22nd, 2003, A. Khanna.
2. Madhav Institute of Engineering & Technology, Gwalior, December 19-21st, 2003, A. Khanna.
3. Sinhgad College of Engineering, Pune, January 23-25, 2004, A. Khanna.
4. Siddhaganga Institute of Technology, Tumkur, February 27th – 29th, 2004.D. Kunzru, Member, PAC of Chemical Engg, Dept. of Science & Technology, New Delhi, A. Khanna.
5. Member, Expert Committee for Fast Track Proposals in Engg. Science, Dept. of Science & Technology, New Delhi, D. Kunzru.
6. Member, Expert Committee in Engg. Sciences for Women Scientist Scheme, Dept. of Science & Technology, New Delhi, D. Kunzru.
7. Member, Fist Committee for Engg. Sciences, Dept. of Science & Technology, New Delhi, D. Kunzru.

DEPARTMENT OF CHEMISTRY

1. `Structure and Dynamics of Hydrogen bonds in bulk and interfacial aqueous solutions: Classical and ab initio molecular dynamics studies', funded by CSIR, started in June 2003, New Research Projects, A. Chandra.
2. `Structure and dynamics of molecular solutions at interfaces: Theoretical studies using classical and quantum methods', funded by DST, started in April 2003, New Research Projects, A. Chandra.
3. `Excess protons, electrons and metal atoms in hydrogen bonded nanoclusters: Studies of structural, dynamical and electronic aspects

through ab initio molecular dynamics ‘, funded by DST (Nanoscience initiative), started in March 2004, , New Research Projects, A. Chandra.

4. CSIR: A New, Flexible and Stereoselective Synthesis of *trans*-Hydrindane Systems Present in Biologically Active Natural Products (2002-2005); 10.8 lakhs, Sponsored Projects, F. A. Khan.
5. Swarnajayanti (DST): Tetrahalobicyclo[2.2.1]heptane and tetrahalobicyclo[2.2.2]ocane derivatives: Stereoselective inextricable templates in natural product and designed target syntheses (2003-2008); 96.6 lakhs, Sponsored Projects, F. A. Khan.
6. Selenocysteine containing peptides as models for mammalian selenoproteins 2001-2004; CSIR, Rs 11.2 lakhs, Ramanathan Gurunath.
7. Isolation and Characterization of microbial strains for the degradation of hydroxy and nitro toluenes, 2004-2006; DBT, Rs. 10. 16 lakhs, Ramanathan Gurunath.
8. CSIR project: Design and Development of New Multicomponent Couple Reactions sanctioned by CSIR (sanction no. 01(1854)/03 EMR II), Dtd. 12th March 2003, H.IIa.
9. DST project: New Synthetic Strategies for Small Molecule Heterocycles and Related Natural Products *via* Palladium (0) and Radical Mediated C-C and C-Heteroatom Bond Formation” sanctioned by DST (SP/S1/GO-05/2001) , H.IIa.
10. Astrazeneca project: Regioselective Synthesis of Substituted and Fused Quinoxalines, sanctioned by AstraZeneca Research Foundation, Bangalore, Karnataka., H.IIa.
11. Magnetoresistive Studies in Half – Metallic Ferromagnets, Collaborative Indo-German Research Project funded by Department of Science and Technology, New Delhi and BMBF, Germany, S. Sundar Manoharan.
12. Acoustic wave Stimulated Synthesis of ferromagnetic alloys and oxides” funded by Department of Atomic Energy (DAE), BRNS, Mumbai, S. Sundar Manoharan.
13. Consultancy project: Studies on Cathodo-luminescent materials for Display technology, With SAMTEL COLORS, Ghaziabad, Delhi, S. Sundar Manoharan.

14. Nerve gas inactivation by metalated polymer, Defense Materials, Stores & Research Development Establishment, DRDO, 2003-2004, Verma S.
15. Functional mimicry of copper oxidases: C-H bond activation by bioinspired nucleobase polymeric templates, SERC, Department of Science and Technology, 2003-2006, Verma S.
16. Parallel synthesis of functional monomers and polymers: Applications in catalysis and electrical conductance studies, Ministry of Human Resources Development, 2004-2007, Verma S.
17. CSIR: Osteoporosis project in collaboration with NIO Goa (2003-2004); Rs 5 lakhs, Sponsored Project, Vinod K. Singh.
18. DST: Chemistry of Aziridines (2003-2006); Rs 20 lakhs, Sponsored Project, Vinod K. Singh.
19. Neurogen Corp. USA: Synthesis of fragments (2003-2004); US\$160,000/-, Consultancy Project, Vinod K. Singh.
20. Cyclopropanes as surrogates to molecules of potential interest, Application to selected natural products synthesis, 2004-2006; DST, Rs 20 lakhs, Sponsored Project, Veejendra K. Yadav.

DEPARTMENT OF CIVIL ENGINEERING

Research/Consultancy Projects

1. Visited the Department of Civil Engg., Univ. of Illinois at Urbana-Champaign, USA in July 2003, Chakrabarti, S.K.
2. Chakrabarti, S.K. completed the consultancy project, Vetling of Structural Design of 200 MLD Water Treatment Plant at Ganga Barrage (Kanpur) (sponsored by : Barrage Unit, U.P. Jal Nigam, Kanpur : Value : Rs. 3.0 lakh, Chakrabarti, S.K.
3. Worked as Vice-President, Indian Society of Earthquake Technology (ISET) in the first year of this term Gupta, V.K.
4. Worked as Editor, ISET Journal of Earthquake Technology for the consecutive sixth year Gupta, V.K.
5. Hydraulic Model Studies for River Training Works on the Ghaghra River near Kamariaghat, World Bank Project Sponsored by PCC Services, Lucknow, UP, Report Submitted September 2003, Amount Rs. 8,43,560, Jain, A.

6. Physical Modeling of Ghaghra River for the Selection of a Bridge Site near Behraich, World Bank Project Sponsored by The DHV Consultants BV, Lucknow, UP, Report Submitted June 2003, Amount. Rs. 4,76,000, Jain, A.
7. Active faults along northwestern Himalayan foothill zone: Implications to the great Himalayan earthquakes. Amount Sanctioned Rs. 402,000/=, Duration: 3 years. Funding Agency: DST, New Delhi (under fast track Young Scientist Scheme, Malik, N. Javed.
8. Malik, N. Javed, Title: DSM generation using high altitude satellite photos for identification and mapping of active tectonic landforms related to paleo-earthquake in Kumaon Himalaya. Amount Sanctioned Rs. 15,00,000/-. Funding Agency:3 years. Funding Agency:MHRD, New Delhi, Malik, N. Javed.
9. Assessment of technology for low-cost housing schemes of Govt. of India, Wizmin management consultants, Kanpur, Misra Sudhir.
10. Misra Sudhir, Assessment of quality of concrete construction, Mitsui Kensetsu India Ltd., Misra Sudhir.
11. Misra Sudhir, Inspection of RBI Buildings in Kanpur, Reserve Bank of India, Misra Sudhir.
12. Misra Sudhir, Inspection of civil works at development sites, Uttar Pradesh State Industrial Development Council (UPSIDC), Misra Sudhir.
13. MOU with Geological Survey of India (GSI), Calcutta, Patra, N.R.
14. Continuing Member, Project Evaluation Committee on Earth and Environmental Sciences, CSIR, New Delhi, Raymahashay, B.C.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

1. Member programme committee CIT Dec 2003, R.K Ghosh.
2. Resource person, International Workshop in Mobile Commerce, Dec 2003, R.K Ghosh.
3. IIT Kanpur Hackers' Workshop 2004. Feb 23-24, 2004, Deepak Gupta.

Sponsored Projects

1. E-pip – Everyboby's Platform for Information Processing, Media Lab Asia, 28 lacs, T.V Prabhakar.
2. Eclipse Innovation Grant, IBM, \$15,000, T.V Prabhakar.
3. Project Monitoring Toll, MHRD, 5.00 lacs, T.V Prabhakar.
4. Technologies for Monitoring Gigabit networks Dept of IT, MCIT, New Delhi, Rs. 60 lakhs, Dheeraj Sanghi.
5. Enabling IPv6 on ERNET Dept of IT, MCIT, New Delhi, Rs. 10 lakhs, Dheeraj Sanghi.

DEPARTMENT OF ELECTRICAL ENGINEERING

1. Acquisition (in process) of a high-end rapid PCB prototyping facility with scope for PTH rendering and multi-layer board fabrication, P. Sensarma.
2. Guest Researcher, Fraunhofer Institute of Autonomous Intelligent Systems, Germany, May 19 2003 – July 18 2003, Laxmidhar Behera.
3. Involved in Distance Education programme for Chattisgarh Govt., Y.N. Singh.
4. DST-Fast Track: Theoretical and experimental investigation of an artificial treechannels in high voltage polymeric insulation, Nandani Gupta.
5. MHRD-R&D: Experimental investigation into the mechanism of electrical tracing in polymeric insulation, Nandani Gupta.
6. Mentored a team of 3 students for the IEEE Computer Society International Design Competition (CSIDC). The team qualified for participation in the World Finals at Washington DC in July 2003 and won an Honorable Mention, A. K. Chaturvedi.
7. Served as a member of the Awards Committee of SPIE, the International Society of Photonics Engineering, A.K. Ghosh.

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

1. Sustainable Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26 – July 05, 2003, A. K. Sharma.

2. Social Indicators of Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 16-July 05, 2003, A. K. Sharma.
3. Role of NGOs in Improving the Environment, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26- July 05, 2003, A. K. Sharma.
4. PRA as a Tool for Development, Lecture in Refresher's Course in Environment Economics & EIA, HSS Department, IIT Kanpur, June 26-July 05, 2003, A.K. Sharma.
5. Delivered a lecture on A qualitative study of everyday meaning of mental health: Some insights regarding common-sense and social representations in the 9th UGC-ASC Refresher Course in Psychology on Human Behaviour: Research Issues and Insights, held at Department of Psychology, University of Allahabad from September 6-24, 2003, Shikha Dixit.
6. Organised a two day Workshop (along with Dr. K.G. Kshirsagar) on Intellectual Property Rights, Gokhale Institute of Politics and Economics, Pune, sponsored by the Ministry of Human Resource Development, New Delhi, March 27-28, 2004, P. M. Prasad.
7. Lecture on Zoning Issues in Environmental Problems for the participants of UGC Refresher Course on Urban and Rural Development, Gokhale Institute of Politics and Economics, Pune, August 29, 2003, P. M. Prasad.
8. Participated in the Course Criminology and Forensic Science at National Institute of Criminology and Forensic Science, Delhi, During, September 2- 22, 2003, P. M. Prasad.
9. Organized the Linguistics Session at the 27th All India Social Science Congress, at IIT Kharagpur December 3- 7, 2003, B. N. Patnaik.

DEPARTMENT OF INDUSTRIAL & MANAGEMENT ENGINEERING

1. Reviewer of Marketing Strategy for the Proposal: Strategy for Marketing the Energy Efficient Cupola and Pollution Control System Among Small-Scale Foundries, by Tata Energy Research Institute (TERI), New Delhi, Swami, S.
2. Session Chairman in the Technical Session on E-Commerce and Information Technology in APORS-2003 International Conference, New Delhi, India, December, 2003, Swami, S.

3. Draft Presentation for IT Policy for UP Development Council, Government of Uttar Pradesh (co-authored with Prof. S. G. Dhande, Director, IIT Kanpur, and Mr. Sanjeev Shriya, President, TiEUP, Swami, S.
4. Session Chairman in the Technical Session on Multiobjective Goal Programming in APORS-2003 International Conference, New Delhi, India, December, 2003, Sharma, R.R.K.

Consultancy Reports

1. Consultant to DFID, UK project on SME Development and Pro-Poor Economic Growth: Developing Financial service Markets in Asia, April-May, 2003, A.P. Sinha.
2. Interim Draft Report on Analysing barriers and policy measures to wider adoption of clean and energy efficient technologies in the power sector (ARRPEEC-III) for AIT, Thailand, Anoop Singh.
3. Consultancy report to L&T India on Strategic Management of Technology and Knowledge across Business Groups and guidance for (a) Market entry strategy for Facility Command centers- Integrated control, automation, safety and security centers in large mixed use establishments (b) Reengineering the L&T EBG range for rural markets-River linking project. (c) Task force agenda for Technology mapping, Jayanta Chatterjee.
4. Report on Market Survey to Access the Business Potential of Industrial Robots in India for BHEL, New Delhi, September 2003, Market Survey to Access the Business Potential of Industrial Robots in India Sponsored by Bharat Heavy Electricals Limited, Corporate Office, New Delhi. Rs. 4.94 Lakhs, Sanjeev Swami.
5. Development of a Decision Support System for Micro-scheduling at Theaters Sponsored by Pathe, The Netherlands, Rs. 3.24 Lakhs, Sanjeev Swami.

Cases Developed

1. The case of Book Stools in a Library, 2003, Rahul Varman.

Short Term Courses

1. Problem solving and Process Re-Engineering for Indian Airlines May 23-25 2003 New Delhi, A.K. Mittal.
2. Follow up Workshop on Problem Solving and Process Re-Engineering for Indian Airlines 30th August 2003 New Delhi, A.K. Mittal.
3. QFD Iran Electricity Company Sari Iran Dec. 5, 2003, A.K. Mittal.

4. Modalities of Product Patent Key note address ASSOCHAM Programme on Amendments to the Patents Act 1970, Lucknow Sep., 2003, A.K. Mittal.
5. ISO 9000:2000 and 5S Invited Lecture Quality Month Small Arms Factory Kanpur November 2003, A.K. Mittal.
6. TQM Invited Lecture Quality month Field Gun Factory Kanpur November-2003, A.K. Mittal.

DEPARTMENT OF MATHEMATICS

1. Invited to be Editorial Board Member of the Journal of Modern Applied Statistical Methods for the year 2003-2005, Kundu, D.
2. Invited to be the Editorial Board Member of the Journal Statistics and Its Applications, Kundu, D.
3. Gave a series of nine lectures in Linear Algebra, in NBHM Sponsored Nurture Program held in IIT Kanpur in June 2003, Lal, A.K.
4. Organized 'International Conference on Mathematical Biology' Feb. 19-21'2004 at the I.I.T. Kanpur. It was participated by about 150 participants including 12 foreign delegates, Chandra, P.
5. Chaired the Environmental Science Session at the 2004 Hawaii International Conferences on Sciences held at Honolulu, HI, U.S.A. during Jan. 15-18, 2004, Sinha, Prawal.
6. Chairman for the plenary session, during the International Conference on Differential Equations, Dynamical Systems and Applications held at Atlanta. U. S.A. during May 19-May 24, 2003, Raghavendra, V.
9. Delivered 4 invited lectures at University of Allahabad, Department of Mathematics, Feb. 26-27, 2004, Kapoor, G.P.
7. Enhanced Fritz John Conditions in Nonsmooth Optimization, Institute for Optimization: University of Halle-Wittenburg, Germany, 17th June 2003, Dutta, J.
8. Regularity Conditions and Optimality in Nonsmooth Vector Optimization, 24th June 2003, Dutta, J.

9. Monotonic Analysis over Cones, Department of Operations Research and Statistics, University of Alicante, Spain, 2nd July 2003, Dutta, J.
10. A Brief Overview of Nonsmooth Optimization, Department of Operations Research and Statistics, University of Alicante, Spain, 4th July 2003, Dutta, J.
11. Visit under the Associateship Programme of the Institute of Mathematical Sciences, Chennai, from May 6-June 6, 2003, Banerjee, M.
12. On the Development of Parallel 3D Unsteady Flow Solver for Vector Parallel Processors, Institut Techno Und Wirtschafts-mathematik (ITWM), Pre-Park, Kaiserslautern, Germany May, 2003, Rathish Kumar B.V.
13. Parallel Iterative Solvers on Anupam Cluster, at BARC, May, 2003, Rathish Kumar B.V.
14. Wavelet based pre-conditioners in Sparse Matrix computation, at IOP, Bhuwaneshwar, Workshop on Wavelets and Applications, Feb. 7-11, 2004, Rathish Kumar B.V.
15. Introduction to numerical simulations in fluid dynamics, AICTE workshop on Simulation & Modelling at Beant College of Engineering, Gurudaspur, 15-20, March 2004, Rathish Kumar B.V.
16. Dominance Based Approach for Local Search Algorithms International Conference on OR, with Industrial and Economic Applications, Jan. 8-10, ISI Kolkata, Sharma, P.
17. XVIIIth International Symposium on Mathematical Programming, Technical University of Denmark, Copenhagen, Denmark, August 2003, Sharma, P.
18. Presented contributory paper, Chaired a session on combinatorial optimization, APORS 2003, Delhi, 7-9th Dec. 2003, Sharma, P.

DEPARTMENT OF MATERIALS AND METALLURGICAL ENGINEERING

1. Investigation of Iron pillar at Kodachadri hills, May 16, 2003, R. Balasubramaniam.
2. Investigation of forge welded iron cannon 'Dal Mardan' at Bishnupur, June 10, 2003, R. Balasubramaniam.
3. Study of bronze disease in Chola bronzes at Tiruchi Museum, Tiruchirapalli, June 19, 2003, R. Balasubramaniam.

4. Study of cast iron cannon in Krishnagiri fort, Krishnagiri, 24 June 2003, R. Balasubramaniam.
5. Investigation of material of construction of Rashtrakuta bronzes, Andhra Pradesh state archaeology department, Hyderabad, June 30, 2003, R. Balasubramaniam.
6. Investigation of iron and bronze cannons in Golconda fort, Hyderabad, November 7, 2003, R. Balasubramaniam.
7. Investigation of the characters of the Delhi iron pillar inscription, April 3, 2004, R. Balasubramaniam.
8. Nucleation of a Group for Research on Emerging Technologies for White Light Illumination, 7 April 2003, IIT Kanpur, Deepak Gupta.
9. International Indo-Italian Workshop on Organic Semiconductors, 14-17 October 2003, IIT Kanpur (with Prof. S. Kumar, Physics), Deepak Gupta.

DEPARTMENT OF MECHANICAL ENGINEERING

1. Developed a biped walking robot for the first time in India, which has possible applications in defense, nuclear, entertainment etc., Ashish Dutta.
2. Actively participated in the organization of Indo-USA collaboration on Futuristic Manufacturing, N.V.Reddy.
3. Representing IIT Kanpur in Expert group on CAD/CAM education (MHRD Initiative) , N.V.Reddy.
4. Modernization of Introduction to Manufacturing Processes Laboratory (On going activity, Institute Core Laboratory), N.V. Reddy.
5. National Symposium for IC Engines and Combustion, 2007 to be hosted at IIT Kanpur. I was responsible for bringing it to IIT Kanpur for the first time, Avinash Kumar Agarwal.
6. Organizing chairing a session on Alternative fuels for compression Ignition Engines in SAE World Congress 2005 to be held in Detroit, April 2005, Avinash Kumar Agarwal.
7. Four modules consisting of 12 lectures of Kinematics of Machines prepared under NPTEL has been delivered for broadcasting in 'Eklavya' channel, A.K.Mallik.

Projects

1. Principle-investigator (with Prof. K.Muralidhar CI), Research Project sponsored by Department of Atomic Energy, Computational Fluid Dynamics Analysis of a low-pressure CVD reactor, as an aid to design. Worth: Rs 14,95,000/- Duration: 2003-2005. Deliverable: Further simulations of a CVD (Chemical Vapour Deposition) Reactor, for design optimisation. V.Eswaran
2. Co-Investigator (with Prof. G.Biswas PI), Research project sponsored by BRNS(Mumbai), CFD Code for Thermal Hydraulics of Neutron Spallation Target for Accelerator Driven Sub-critical System, V.Eswaran.
3. Co-Investigator (with Prof. P .K. Panigrahi PI), Research project sponsored by Naval Research Board (NRB), Active Flow Control by Dynamic Obstacles in Propulsion Applications . Worth:Rs 34,08,600/- Duration:2004-2007, V.Eswaran.
4. New Project Design and Development of a Fire Testing Set-up for Flight Data Recorder, HAL Korwa, Rs. 6.00 Lakhs, B.P.Pundir.
5. Co-investigator, Modernization and Removal of Obsolescence Project, Sponsored by MHRD, Rs. 15 lakhs. (PI: Head, Mechanical Engineering, Co-PI's: N. V. Reddy, Avinash Agarwal and N. N. Kishore), N.V.Reddy.
6. Principal Investigator, A course on Finite Element Applications in Metal Forming for TISCO(R&D) engineers (Four weeks course), TISCO, Jamshedpur, (Rs 2 lakhs). (Prof. PM Dixit is also a Principal Investigator), N.V.Reddy.

DEPARTMENT OF PHYSICS

1. Member, Organizing Committee, International Conference on Unconventional Applications of Statistical Physics (2003), D. Chowdhury.
2. D. Chowdury – Guest EDITOR, T106 of Physica scripta (2003), Published by Royal Swedish Academy of Sciences, D. Chowdhury.
3. M.K. Verma – Educational software for middle-school children on human body, Indian rivers with a team Apne Hath se, IIT Kanpur, M.K. Verma.
4. S. Sivaprakasam – delivered two talks at HAL, Korwa, 14 and 15 Nov. 2003, S. Sivaprakasam.
5. Convener, National Workshop on String Theory 2003, IIT Kanpur, Dec. 8-21, 2003, G. Sengupta.

6. Paris-04: International Meeting on Linear Colliders, Ecole Normale Superieur, Paris, April 19-26. 2004, Joint-Convenor, Working Group on Physics Beyond the Standard Model, S. Raychaudhuri.
7. S. Raychaudhuri - Member of DST PAC on SERC Schools in Theoretical High Energy Physics (2000-2005), S. Raychaudhuri.
8. A number of refreshing Physics experiments at school level were developed. 1-day workshops were conducted at different places. About 300 physics teachers from selected schools were trained, H.C. Verma.