Publication and Outreach Activities

BOOKS & BOOK CHAPTERS PUBLISHED

Books

3. Advanced Control of Aircraft, Spacecraft and Rockets, Ashish Tewari (AE), John Wiley & Sons, Chichester, U.K.
4. Automatic Control of Atmospheric and Space Flight Vehicles, A. Tewari (AE), Springer (Birkhauser), Boston, USA.
7. SI adaptation Solid Waste Engineering and Solution Manual, Worrell and Vesilind and Tarun Gupta (CE), Cengage Learning, CT, USA.
9. Economics of Nuclear Power: Modeling and Scenario Analysis for Light Water Reactors in India, Dr. Saurabh Sharma, Prof. Anoop Singh (IME) and Prof. M S Kalra (ME), LAP LAMBERT Academic Publishing, Saarbrucken.
10. Services, Marketing, 7th Editor, Christopher Lovelock Jochen Wirtz, Jayanta Chatterjee (IME), Pearson Education, South Asia, 2012.
12. Tribology of Ceramics and Composites: Materials Science Perspective, Bikramjit Basu (MSE) and Mitjan Kalin, John Wiley & Sons, USA.
13. The Science and Engineering of Materials, Donald R. Askeland et al (Book Adaptation), Kantesh Balani (MSE), Cengage Learning, USA.
Book chapters

Biological Sciences and Bioengineering


Chemical Engineering


Chemistry


Civil Engineering


Humanities and Social Sciences

22. Binay Kumar Pattnaik and Subhasis Sahoo, Manoj K Pataiiriya and Maria I Nogueira, Sharing Science, India-Brazil Dialogue on Public Communication of Science, Technology, Culture and Society, National Council for Science & Technology Communication, Government of India, New Delhi and University of Sao Paulo, Brazil, 205-228, Studying science Communications in India through People's Science Movements.

148

Industrial Management and Engineering


Mathematics and Statistics


Materials Science and Engineering


Mechanical Engineering


Physics

JOURNAL PAPERS

Aerospace Engineering


**Biological Science and Bio-engineering**


Chemical Engineering


**Chemistry**


147. M. Ahmad, M. K. Sharma, R. Singh, J. Mrozinski and P. K. Bharadwaj, Unprecedented Mn(II)-phosphate 3D coordination polymer with novel pkb1
topological network showing spin-canted anti ferromagnetism, Australian Journal of Chemistry. (Special Issue), 2012.


162. V. Chandrasekhar, T. Hajra, J. K. Bera, S.M. Wahidur Rahaman, N. Satumtira, O. Elbjeirami and M. A. Omary, Ligand-Bridged Dinuclear Cyclometallated Ir$^{ll}$


234. A.K. Sharma, A. De, V. Balamurugan and R. N. Mukherjee, Conformational Flexibility of 2,6-Bis(pyrazol-1-ylmethyl)pyridine (L^5) in [L^2Co^{II}(H_2O)_3]Cl_2 and [L^5Ni^{II}(H_2O)_3]Cl.H_2O. Molecular Structures and Non-covlant Interactions, Inorg.
Annual Report 2011-2012


Civil Engineering


Computer Science and Engineering


**Electrical Engineering**


355. YN Trivedi and AK Chaturvedi, Performance Analysis of Multiple Input Single Output Systems Using Transmit Beam forming and Antenna Selection with Delayed Channel State Information at the Transmitter, IET Communications, 5, 6, 827-834, 2011.


371. R. Sonkar and U. Das, Quantum well intermixed waveguide grating, Optical and Quantum Electronics, 42, No.9-10, 631-643, September 2011.
matrix converter, Energy Conversion Congress and Exposition (ECCE), 2011 IEEE,
378. S K Jain and S N Singh, Harmonics Estimation in Emerging Power System: Key
Issues and Challenges, Electric Power Systems Research, Vol. 81, No. 9, pp. 1754-
1766, September 2011.
379. Seethalekshmi K., SN Singh and SC Srivastava, A GRNN based scheme for
predicting trip boundary of distance relays in the presence of UPFC utilizing
September 2011.
380. SK Parida, SN Singh and SC Srivastava, A review on reactive power management
No.2, pp. 201 – 214, 2011.
381. SN Singh, D Saxena and Jacob Ostegaard, Assessment of Emission Trading
Impacts on Competitive Electricity Market Price, International Journal of
382. Dipendra Singh, KS Verma and SN Singh, Changing Scenario of Electric Power
Injection: Generation Side to Load Side, Electrical India, Vol. 51, No. 12, pp 56-64,
December 2011.
383. Daniel Hernandez Gonzalez, Guillermo Gutierrez Alcaraz and SN Singh, GENCOs
Multi-Period Expansion Model in a Competitive Electricity Market, International
384. Choudhary S. & Qureshi, Theoretical Study on Transport Properties of a BN Co-
SOI MOSFET for Nanoscale CMOS logic Circuits, Semiconductor Science and
Technology, 27, 4, 4-12, February 2012.
386. Patil G. C. & Qureshi S, Impact of Segregation layer on Scalability and Analog/RF
performance of Nanoscale Schottky barrier SOI MOSFET, Journal of
387. Choudhary S. & Qureshi S, Power Aware Channel Width Tapering of Serially
Connected MOSFETs, Springer’s Analog Integrated Circuits and Signal
388. Choudhary S. & Qureshi S, Theoretical Study on the Effect of Vacancy Defect
Reconstruction on Electron Transport in Si-C Nanotubes, Physics Letters B, 25, 28,
1-12, June 2011.
389. Choudhary S. and Qureshi S., Effect of Radial and Axial Deformation on Electron
transport Properties in a Semiconducting Si-C Nanotube, Journal of Nano &
Electronic Physics, 3, 1, 584-589, June, 2011.
390. Choudhary S. & Qureshi S, Inductance Modelling of SWCNT Bundle
Interconnects using Partial Element Equivalent Circuit Method, Springer’s Journal
Humanities and Social Sciences


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Materials Science and Engineering


438. Brajendra Singh, Ashutosh Dubey, S. Kumar, Naresh Saha, Bikramjit Basu and Rajeev Gupta, In vitro biocompatibility and antimicrobial activity of wet chemically prepared Ca10-xAgx(PO4)6(OH)2 (0.0 ≤ x ≤ 0.5) hydroxyapatites, Mat. Sc. Engg, Vol C 31, 1320-1329, 2011.


442. Ashutosh Kumar Dubey, Geet Sitesh, Shekhar Nath and Bikramjit Basu, Spark plasma sintering to restrict sintering reactions and enhance properties of


469. Anurag Nandwana and Dipak Mazumdar, Modeling and high temperature studies of continuous casting of wider section (1500~2500mm) steel slabs, ATCOM 2011, Ranchi, 2011.


472. Gupta, G., Kumar, M., Chattopadhyay, C., Mondal K, Corrosion and oxidation behavior of Zr58Cu22Fe4Co4Al12 metallic glass, In: IIM Transactions (Online first), 2011.
Mathematics and Statistics


**Mechanical Engineering**


554. Rakesh Kumar Maurya, Avinash Kumar Agarwal, Statistical Analysis of the Cyclic Variation of Heat Release Parameters in HCCI Combustion of Methanol and Gasoline, Statistical Analysis of the Cyclic Variation of Heat Release Parameters in


Physics


615. D. Sahu, S. Bhattacharjee, Mainak Bandypadhyay and Arun K. Chakraborty, Generation of cold electrons in the downstream region of a microwave plasma


RESEARCH PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS
(AS A FULL PAPER)

Aerospace Engineering


8. Jejurkar SY, Mishra DP. Second law analysis of a premixed flame based annular microcombustor. 5th European Combustion Meeting 28 June–1 July 2011, Cardiff University, Cardiff, UK.


11. Jejurkar SY, Mishra DP. Second law analysis of a premixed flame based annular microcombustor. 5th European Combustion Meeting 28 June–1 July 2011, Ranchi

12. Mahesh S. and D. P. Mishra, Characterization of Turbulent LPG Inverse Diffusion Flame in Recessed Back step and Coaxial Burners, Flucome, National Taiwan University, Taiwan, 24-27 May 2011.


Chemical Engineering


Civil Engineering


29. Khan, I., and Das, A., Mix design for cement grouted bituminous mix, 7th International Conference on Road and Airfield Pavement Technology, 1150-1158, Bangkok, August, 2011.


Computer Science and Engineering


196
7th International Conference on Intelligent Computing (ICIC 2011), Zhengzhou, China, August 11-14, 2011.


60. Nirmesh Malviya, Samuel Madden, Arnab Bhattacharya, "A Continuous Query System for Dynamic Route Planning", International Conference on Data Engineering (ICDE), Hannover, Germany, April 11-16, 2011.

Electrical Engineering


69. T Gupta, S Madhuri, M J Akhtar and K V Srivastava, Development of the virtual lab module for understanding the concepts of modes and field patterns in electromagnetics and microwave engineering, 8th International Conference on Remote Engineering and Virtual Instrumentation, REV2011, 112 – 120, Brasov, Romania, June, 2011.


71. Uma Mahesh and AK Chaturvedi, Closed Form BER Expressions for BPSK OFDM Systems with Fractional Timing Offset and Carrier Frequency Offset, 18th National Conference on Communications, IIT Kharagpur, February 2012.


85. Raghvendra Kumar Chaudhary, H. B. Baskey, K. V. Srivastava, A. Biswas, Wideband Two-layer Rectangular Dielectric Resonator Antenna with (Zr0.8Sn0.2)TiO4-Epoxy Composite System, IEEE Applied Electromagnetics conference (AEMC) and Indian Antenna Week (IAW), Kolkata, India, Dec. 18 - 22, 2011.


97. Rajeev Kumar Singh and Santanu Mishra, A Versatile Control Modulator for Optimal Bi-directional Battery Charging, IEEE Power Electronics, Machines and Drives Conference (PEMD 2012), University of Bristol, UK, 29 March 2012.


114. Prasanna Kumar Misra and S. Qureshi, Speed Enhancement of npn SiGe HBT on Thin Film SOI and Thin BOX by Using Substrate Bias in (0V-3V) Range, IEEE TENCON, 2011, 797-801, Bali, Indonesia, Nov. 21-24, 2011.


122. G. Prithwijit, A. Mukherjee and K. S. Venkatesh, Formulation, Detection and Application of Occlusion States (Oct 7) in the Context of Multiple Object Tracking, In proceedings of 8th IEEE International Conference on Advanced Video and Signal-Based Surveillance (AVSS), Klagenfurt University, Aug-Sep, 2011.


Humanities and Social Sciences


Industrial Management & Engineering


Materials Science and Engineering

137. V. Kumar, R. Balasubramaniam, R. Shekhar, Kantesh Balani, Microstructure and texture evolution during hot rolling of Mg-9Li-7Al-1Sn alloy for aerospace application, Materials Science Forum, 85-88, 2012.


Mathematics and Statistics


Mechanical Engineering


Physics


171. S. Bhattacharjee, S. Paul, A. Chowdhury and Jose V. Mathew, New frontiers in nanoscience and technology using multi element focused ion beams (MEFIB) from compact microwave driven plasmas, 14th International conference on Ion Sources (ICIS 2011), 28, Giardini Naxos, ITALY, September 12 - 16, 2011.


PAPERS PRESENTED IN
SEMINARS/CONFERENCE/WORKSHOPS/SYMPOSIA

Biological Sciences and Bioengineering


4. Ashok Kumar, Biomedical Applications Tissue Engineering and Regenerative Medicine, JAPAN-India (JST-DST), Workshop on Biomedical Research, Waseda University, Tokyo, Japan, 28 - 29th February, 2012.


8. Priti Agarwal, R. Mainpal, K. Subramaniam, Translational control of cyclin B by PUF-8 and GLD-1 is essential for germ cell development, 18th International C. elegan Meeting, University of California, Los Angeles, California, USA, June 22-26, 2011.

9. S. Vaid, M. Ariz and K. Subramaniam, Regulation of RAS/MAPK signaling by PUF-8 and GAP-3 is essential for meiotic progression, 18th International C. elegan Meeting, University of California, Los Angeles, California, USA., June 22-26, 2011.


18. G. Deo, CO2 reforming of CH4 to produce syngas over metal-supported catalysts, 2nd Indo German Workshop on Advances in Reaction and Separation Processes, Bad Herrenalb, Germany, February, 2012.

29. S. Sengupta, CO2 reforming of CH4 to produce Synthesis Gas Over Modified and Unmodified Ni/Al2O3 catalysts, 11th International Conference on Carbon Dioxide Utilization, Dijon, France, June 2011.


34. Singh JK, Tuning surface phase transition of associating fluids, Thermodynamics, Athens, Greece, Sept, 2011.


40. R. Mukherjee, Electrochemical synthesis, immobilisation and transmission line modelling of aniline and N-Phenylglycine co-polymer for heavy metal detection in water, CHEMCON-2011, Bangalore, December 27 - 29, 2011.


50. N. Kaistha, Design and control of a reactive distillation process for naphtha hydrodesulphurization, AIChE, Minneapolis (USA), 16-21 Oct 2011.
51. N. Kaistha, Plantwide control for economically optimal operation of an ethyl benzene, AIChE, Minneapolis (USA), 16-21 Oct 2011.
52. N. Kaistha, Hybrid Duplex and Molecular Gate PSA, AIChE, Minneapolis (USA), 16-21 Oct 2011.
53. Shyam Kumar, CFD simulations to validate the gas holdup in two phase bubble columns, Technological Advancements in Chemical and environmental Engineering (TACEE-12), BITS Pilani, 23-25th March 2012.
54. R. Timung, Heavy metal ionc extraction using ionic liquids, Technological Advancements in Chemical and environmental Engineering (TACEE-12), BITS Pilani, 23-25th March 2012.
55. Shyam Kumar, Effect of operating parameters in two and three phase co-current bubble columns, CHEMCON-2011, Bengaluru, 27-29th December, 2011.

Civil Engineering

63. Khan, I., Mix design for cement grouted bituminous mix, 7th International Conference on Road and Airfield Pavement Technology, Bangkok, August, 2011.
64. Dhasmana, H., Study of moisture sensitivity of some aggregates in asphalt mix, 7th International Conference on Road and Airfield Pavement Technology, Bangkok, August, 2011.

**Electrical Engineering**

73. S. Chakrabarti, R. Majumder, G. Bag, Performance of electronic interfaced DERs integrated with communication network, IEEE PES General Meeting, Detroit, USA, July 2011.


**Humanities and Social Sciences**


111. B. Bhushan, Culturally prevailing spiritual practices and modern methods of behavioural investigations: Reflections from India, International Conference on Consciousness, Mind and Body: Eastern and Western Perspectives, Brazil, August, 2011.

112. B. Bhushan, Studying perceptual differences between designer and non-designer: A visual identity design problem, 6th International Conference on design principles and practices, University of California, Los Angeles, January, 2012.


116. Lilavati Krishnan, Humanities and Social Sciences in Institutes of Technology - Some views regarding the HSS curriculum, International Conference on the Role of Humanities and Social Sciences in Hilistic Development of Future Technocrats, Jaypee University of Information Technology, Solan, Himachal Pradesh, September, 2011.

117. Lilavati Krishnan, Role of Rationale and Ethnics in Social Science Research, Workshop on Rationale, Methodology and Ethics in Home Economics and Social Sciences, Indore, February, 2012.


121. A. K. Sharma, Socio-cultural Aspects of Palliative Care: A Study of Palliative Care Delivery in Kerala, 19th International Conference of Indian Association of Palliative Care, Kolkata, February, 2012.


126. A. Chakrabarti, Sacred Traditions, Sectarian Identity and the Question of secularism in Contemporary India, Rethinking Religion in India: European Representations and Indian Responses, University of Pardubice, Czech Republic, October, 2011.


**Industrial & Management Engineering**


130. Raghu Nandan Sengupta, Siddharth Sahoo, Reliability Based Portfolio Optimization for Extreme Value Asset Returns under Asymmetric Loss Functions, 9th International Conference on Computational Management Science, Imperial College London, UK, April 2011.


Materials Science and Engineering


149. Kantesh Balani, V. Kumar, R. Shekhar, Govind, Effect of hot rolling on microstructure and texture evolution of Mg-Li based alloy, Materials Science Forum, 2011.

150. Kantesh Balani, V. Kumar, R. Balasubramaniam, R. Shekhar, Microstructure and texture evolution during hot rolling of Mg-9Li-7Al-1Sn alloy for aerospace application, Materials Science Forum, 2012.


Mechanical Engineering

181. Jitendra Gangwar, Comparative Study of PM Mass and Chemical Composition from Diesel and Biodiesel Fuelled CRDI SUV Engine, SAE INDIA International Mobility Conference-2012, New Delhi, India, January 2012.
182. Pravesh Chandra Shukla, Macroscopic Spray Parameters of Karanja Oil and Blends: A Comparative Study, SAE INDIA International Mobility Conference-2012, New Delhi, India, January 2012.


193. P. Venkitanarayanan, Fracture in Layered Plates having Property Mismatch across the Crack Front, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Uncasville, CT, USA, USA, JUNE, 2011.

194. C. K. Desai, Measurement of Cohesive Parameters of Crazes in Polystyrene Film, SEM Annual Conference and Exposition on Experimental and Applied Mechanics, Uncasville, CT, USA, USA, JUNE, 2011.

**Physics**


199. S. Bhattacharjee, New frontiers in nanoscience and technology using multi element focused ion beams (MEFIB) from compact microwave driven plasmas, 14th International conference on Ion Sources (ICIS 2011), Giardini Naxos, ITALY, September 12 - 16, 2011.

200. Debaprasad Sahu, Optimization of negative ion current and density in a compact microwave driven upper hybrid resonance multicusp plasma source, 14th International conference on Ion Sources (ICIS 2011), Giardini Naxos, ITALY, September 12 - 16, 2011.


INVITED TALKS DELIVERED

Aerospace Engineering

2. D. P. Mishra, Micro-combustion, Department of Mechanical Engineering, IIT, Gandhinagar.

Biological Science and Bioengineering

5. R. Sankararamakrishnan, Bioinformatics in Education & Research: Challenges for the next decade, Seminar on Recent Trends in Biosciences and Bioengineering to Celebrate National Education Day, CSJM University, Kanpur, Nov. 2011.
10. Amitabha Bandyopadhyay, Precise restriction of BMP signaling is essential for articular cartilage formation, Indian Society of Developmental Biology, Meeting presentation, Jaipur.
11. Amitabha Bandyopadhyay, BMP signaling in bone and articular cartilage development, TIFR, Pune, Developmental Biology Talk Series, Pune.
12. Amitabha Bandyopadhyay, Precise restriction of BMP signaling is essential for articular cartilage formation, SCIMST, Trivandrum, Trivandrum.
13. Ashok Kumar, Supremacroporous Cryogels for Biomedical and Biotechnological Applications, Biosep company & COBIK Center, Collaboration, Ljubljana, Slovenia, 21st December 2011.
17. Ashok Kumar, New Design of Biomaterials for Biomedical Applications, Jammu University, Jammu, 18th Feb., 2012.
18. Jonaki Sen, Topographic maps: connecting the retina to the brain, Indian Society of Developmental Biologists, Annual meeting, Jaipur, India.
19. Jonaki Sen, Connecting the retina to the brain, Chhatrapati Shahu Ji Maharaj University, Kanpur, Kanpur, India.
20. K. Subramaniam, Nuclear export of mRNAs: an unexpected novel function for the germ cell protein PUF-8, Annual Meeting of the Society of Biological Chemists (India), Central Institute for Aromatic and Medicinal Plants, Lucknow.
21. K. Subramaniam, Caenorhabditis elegans as a model nematode for studies on plant-parasitic nematodes, Annual Meeting of the Nematological Society of India, Thiruvananthapuram.
22. K. Subramaniam, Free-living to the rescue of parasite biology: the usefulness of Caenorhabditis elegans for studies on parasitic nematodes, Fifth Symposium on Molecular Medicine, Special Centre for Molecular Medicine, Jawaharlal Nehru University, New Delhi.
24. S. Ganesh, Cause and consequence of polyglucosan bodies in Lafora neurodegenerative disorder, Symposium on Frontiers in Neuroscience & Genetics, Indian Institute of Chemical Biology, Kolkata (December 23, 2011).
28. Balaji Prakash, Catalytic mechanisms in GlmU deciphered by structural studies, OSDD; CSIR New Delhi, New Delhi.
30. Balaji Prakash, Structural basis governing GTP hydrolysis mechanisms, Guha Research Conference, Jodhpur.
32. Balaji Prakash, A novel Magnesium mediated product release mechanism revealed by structural studies on GlmU, University of Delhi, New Delhi.
Chemical Engineering

34. Santosh K Gupta, Polymerization Reaction Engineering: a Personal Journey, University of Akron, Polymer Engineering Dept., Akron OH, USA, University of Akron, Polymer Engineering Dept., Akron OH, USA.

35. Santosh K Gupta, Multi-objective Optimization (MOO) using Biomimetic Adaptations of Genetic Algorithm (GA), University of Western Ontario, London, ON, Canada, University of Western Ontario, London, ON, Canada.


37. A. Ghatak, Adaptive adhesion via subsurface network of fluid-filled micro-channel, Gordon Research Conference on Adhesion Science, USA.

38. A. Ghatak, Two stories on fracture and adhesion with soft gels, School of Engineering and Applied Sciences, Harvard University, School of Engineering and Applied Sciences, Harvard University.

39. PK Bhattacharya, Pervaporation, Potential Membrane Technology for Typical Liquid Mixtures Separations, THERMIC, Dr. Ambedkar Institute of Technology for Handicapped U.P., Kanpur.

40. PK Bhattacharya, Pervaporation, Potential Membrane Technology for Typical Liquid Mixtures Separations, Pt. Madan Mohan Malviya at Chemical Engineering Department, BHU, Pt. Madan Mohan Malviya at Chemical Engineering Department, BHU.


42. Nishith Verma, Lattice Boltzmann modeling of liquid-vapor two phase flow, Department of Physics, University of Saarbrucken, Germany, University of Saarbrucken, Germany.

43. G. Deo, Effect of Iron on Supported and Unsupported Nickel and Cobalt Catalysts, 2nd Indo German Workshop on Advances in Reaction and Separation Processes, Bad Herrenalb, Germany.

44. Joshi Y. M., Effective time theory and prediction of long time rheological behavior in soft glassy materials, Department of Polymer Engineering, University of Akron, Akron, US.

45. Joshi Y. M., Effective time theory and prediction of long time rheological behavior in soft glassy materials, Southern Clay Products, Louiseville, US.

46. Joshi Y. M., Structure and rheology of aqueous Laponite suspension, Southern Clay Products, Louiseville, US.


49. Singh JK, Computational Nanoscience and Engineering Applications, GM India, Bangalore.

54. R. Pala, Design of photoelectrochemical systems using non-native nanostructures, BARC, Mumbai.
56. P. A. Apte, Fundamentals of thermodynamics, Department of Chemical Engineering, VNIT Nagpur, Nagpur.
57. R. Pala, Design of photoelectrochemical systems using non-native nanostructures, CECRI, Karaikudi.
58. Ashutosh Sharma, Self-organized Meso-Fabrication and Functionalities in Highly Confined Soft Materials, Tata Institute of Fundamental Research (Mumbai), Mumbai.
59. Ashutosh Sharma, Self-organized Meso-Fabrication and Functionalities in Highly Confined Soft Materials, National Physical Laboratory, New Delhi, New Delhi.
60. D. Kunzru, Monolith Reactors for Heterogeneous Reactions, Dept. of Chemical Engineering, Institute of Chemical Technology, Mumbai.

Chemistry

61. J. K. Bera, Zing Conference in Coordination Chemistry, Mexico.
62. J. K. Bera, 5th EuCheMS NLigands Conference, Spain.
63. J. K. Bera, XIX European Conference on Organometallic Chemistry, France.
64. J. K. Bera, CRSI Bronze medal lecture, Trivandrum.
68. A. Chandra, Vibrational spectral diffusio n and molecular motion in supercritical water and aqueous solutions, La Grande Motte (University of Montepillier), France.
69. A. Chandra, Molecular simulations of liquids and interfaces: An HPC activity at IITK, IISER, Bhopal.
70. A. Chandra, Time dependent vibrational spectroscopy of supercritical water and aqueous solutions, NISER Bhubaneswar.
71. A. Chandra, Dynamical structure of water, Presidency University, Kolkata.
73. A. Chandra, Chemical dynamics in aqueous media, Jadavpur University, Kolkata.
74. A. Chandra, HPC at IIT Kanpur, IIT Kanpur.
75. A. Chandra, Time dependent vibrational spectroscopy of normal and supercritical water, University of Burdwan, West Bengal.
76. A. Chandra, 32nd International Conference on Solution Chemistry, La Grande Motte, Montpellier, France.
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<td>A. Chandra, Indo-European Symposium on Frontiers of Chemistry, NISER, Bhubaneshwar.</td>
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<td>78</td>
<td>A. Chandra, Celebration of International Year of Chemistry – 2011, Presidency University, Kolkata.</td>
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<td>79</td>
<td>A. Chandra, Trombay Symposium on Radiation and Photochemistry, BARC, Mumbai.</td>
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<td>80</td>
<td>A. Chandra, National Seminar on Recent Advances in Chemistry, Jadavpur University, Kolkata.</td>
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<td>81</td>
<td>A. Chandra, National Seminar on Recent Advances in Chemical Sciences, University of Burdwan.</td>
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<td>83</td>
<td>V. Chandrasekhar, Single Molecule Magnets: Recent Advances, SRM University, Chennai.</td>
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<td>84</td>
<td>V. Chandrasekhar, Phosphorus–Supported Ligands: Versatile Coordination Platforms for the Assembly of Molecular Materials, 13th CRSI National Symposium in Chemistry, Bhubaneshwar.</td>
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<td>86</td>
<td>V. Chandrasekhar, Chemistry and Polymers – A Story of the Metathesis Reaction Advances in Chemical Sciences and its impact on our lives, Jadavpur University, Kolkata.</td>
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<td>87</td>
<td>V. Chandrasekhar, Phosphorus–Supported Ligands: Versatile Coordination Platforms for the Assembly of Molecular Materials, JNCASR, Bangalore.</td>
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<td>88</td>
<td>V. Chandrasekhar, Phosphorus–Supported Ligands: Versatile Coordination Platforms for the Assembly of Molecular Materials, Granada, Spain.</td>
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<td>89</td>
<td>V. Chandrasekhar, Phosphorescent Dinuclear Cyclometalated Ir(III) Complexes, Goa.</td>
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<tr>
<td>90</td>
<td>V. Chandrasekhar, Phosphorescent Dinuclear Cyclometalated Ir(III) Complexes, Kolkata.</td>
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<td>91</td>
<td>V. Chandrasekhar, Phosphorus–Supported Ligands: Versatile Coordination Platforms for the Assembly of Molecular Materials, Midnapore College, West Bengal.</td>
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<td>92</td>
<td>V. Chandrasekhar, Molecules and Materials: Bridging the Gap, IIT, Bombay.</td>
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<td>94</td>
<td>D. Goswami, Co-Chair, OSA, India.</td>
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<td>95</td>
<td>J.N. Moorthy, Exploitation of Sterics in the Oxidation Chemistry with IBX and Organocatalysis with Proline, Garhwal University, Srinagar, Uttarakand.</td>
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<td>97</td>
<td>J.N. Moorthy, Rational Molecular Design for Amorphous Organic Light Emitting Diodes (OLEDs) and Ordered Functional Mimics of Inorganic Zeolites, CMERI, Durgapur, West Bengal.</td>
</tr>
</tbody>
</table>


102. M.L.N. Rao, 12th Tetrahedron Symposium, Sitges, SPAIN.

103. S.P. Rath, Invited talk in the Department of Inorganic Chemistry, IACS, Kolkata.


105. S.P. Rath, Invited Talk in Celebration Chemistry@IITK, IIT Kanpur.


Civil Engineering


114. R. Sinha, Buried Paleo-Ghaggar Channel Belt Inferred through Resistivity Soundings around Kalibangan Harappan Site, North-Western Rajasthan, India, International Quaternary Association Congress, Bern, Switzerland.


124. A. Das, How to build good roads?, Department of Civil Engineering, NIT Durgapur, Durgapur.

125. A. Das, Concrete pavements for low volume roads, A Short Term Training Programme for Engineers of Rural Engineering Service, HBTI, Kanpur.


127. A. Das, NPTEL course on Advanced Transportation Engineering, National workshop on deployment and use of NPTEL courses, Kanpur.

128. A. Das, How to build good roads?, Fachgebiet Straβenwesen, Technical University of Darmstadt, TU-Darmstadt, Germany.


**Electrical Engineering**


133. S. Chakrabarti, Mathematics for Circuit Analysis, PSG College of Technology, Coimbatore, Workshop on Mathematics for Electrical Sciences, Coimbatore, India.


136. S. Chakrabarti, Synchrophasor assisted enhanced monitoring of electric power systems, NTNU, Norway, guest lecture, Trondheim, Norway.

137. AK Chaturvedi, Information Theoretic Perspective on Cognitive Radio Networks, Samsung India, IRN meeting on Advances in Communications, Bangalore.


Industrial Management and Engineering


146. Raghunandan Sengupta, Estimation for the multiple regression set up using balanced loss function, Indian School of Business, invited lecture, Hyderabad.


Material Science and Engineering


150. Ashish Garg, Multiferroic Materials, RMIT University, Melbourne, Australia.

151. B. Basu, Spark Plasma Sintering of HA-Ti composite: in Vitro biomineralization and cell culture at the 35th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), held in Daytona Beach, Florida.

152. B. Basu, Electrically Stimulated Enhancement of Cell Proliferation on Ferroelectric-Hydroxyapatite Composites at the 35th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), held in Daytona Beach, Florida.
153. B. Basu, Innovative multi-stage spark plasma sintering to obtain strong and tough ultrafine grained ceramics”; at the 35th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), held in Daytona Beach, Florida.

154. B. Basu, Cytotoxicity and genotoxicity property of Hydroxyapatite-mullite eluates”, at the International Symposium on the Safe use of Nanomaterials and Workshop on Nanomaterial Safety: Status, Procedures, Policy and Ethical Concerns, Lucknow.

155. B. Basu, Genotoxicity property of Hydroxyapatite-mullite eluates, at the Indo-Australian meet at IISc, Bangalore.

156. B. Basu, Bridging gap between Materials Science and Biology: An interdisciplinary approach to Design biomaterials; Department of Ceramic Engineering, Banaras Hindu University (BHU), Varanasi.

157. B. Basu, Innovative multi-stage spark plasma sintering to obtain strong and tough ultrafine grained ceramics; Department of Ceramic Engineering, Banaras Hindu University (BHU), Varanasi.

158. B. Basu, Bridging gap between Materials Science and Biology: An interdisciplinary approach to Design biomaterials, Department of Mechanical Engineering, Mining and Machinery, Indian School of Mines, ISM, Dhanbad.


160. B. Basu, Bridging gap between Materials Science and Biology: An interdisciplinary approach to Design biomaterials; Department of Mechanical engineering, Indian Institute of Science, IISc, Bangalore.

161. B. Basu, Bridging gap between Materials Science and Biology: An interdisciplinary approach to Design biomaterials; Department of Biomaterials Science and Tissue Engineering, University College London, UK.


164. B. Basu, Design of Biomaterials: where Materials Science meets Biology, Award lecture at MRSI meeting held in Thapar University, Patiala.

165. N. Mahato, D. Lahiri, A. Agarwal, Kantesh Balani, Microstructure and Mechanical Properties of Multi-structured Peacock Feathers, presented in 2012 TMS Annual Meeting & Exhibition, Orlando, FL, USA.

166. D. Mazumdar, De-S in torpedo ladles, Bokaro steel Plant, Bokaro.


169. S. Shekhar, Multifunctional Nanostructured Metals by High-rate Severe Plastic Deformation (HRSPD), General Motors Research Center, Bangalore.


173. Gouthama, studies on the microstructurual changes during thermo-mechanical cycling of NiTi shape memory wire samples, National Seminar on ‘Design and Development of materials for advanced technnologies, Banaras Hindu University.


Mathematics and Statistics


181. M. Banerjee, Deterministic chaos and stochastic fluctuation in an epidemic model, Department of Mathematics, Bengal Engineering and Science University, May, 2011, West Bengal.


186. S. Dutta, Lectures on operator algebras to graduate students, Workshop in Functional Analysis, CUSAT, (jointly organized by I. M. Sc.), December 5 - 12, 2011, Kochi.

188. M. Gupta. Lectures on advanced topics in Functional Analysis, Department of Mathematics, Kashmir University, Srinagar, May 2011, Kashmir.


190. A. K. Lal, On problems related to algebraic connectivity of Graphs Organization, Concordia April 01, 2011, University, Montreal, Canada.


195. N. Misra, Optimal redundancy allocations in systems and comparison of component and system level redundancies, Department of Statistics, July 15, 2011 University of Calicut.

196. N. Misra, Stochastic Comparisons of Poisson and Binomial Distributions with their Mixtures, Department of Mathematics, Indian Institute of Technology, June 3, 2011, Kharagpur.


200. R. Santhanam, K-theory of F_1 schemes, June 2011, University of Bergen.

201. S. K. Ray, Fourier restriction theorem on Riemannian symmetric spaces of noncompact type, School of Mathematics, TIFR, Mumbai.

202. Shalabh, Talks on Regression Modelling, Forecasting, Model Selection, Goodness of Fit and Measurement Errors, Department of Economics, University of Hyderabad, 2011, Hyderabad.

**Mechanical Engineering**

203. Anurag Gupta, Evolution of incompatibility during growth, Department Seminar, UCSD, CA, USA.

205. Shantanu Bhattacharya, Microfluidics for clinical Daignostics and detection, Indo-Japan Seminar, IIT Delhi.
206. Shantanu Bhattacharya, Bionanotechnology, Microfluidics and BioMEMS for Clinical Diagnostics and identification, Workshop on Nanoscience and Nanotechnology, Department of Applied Physics, AMU, Aligarh, AMU, Aligarh.
207. Shantanu Bhattacharya, Microfluidics and BioMEMS research at IITKanpur, University of Texas at Arlington, Nano-Bio seminar, UT Arlington, Dallas, Tx.
208. Shantanu Bhattacharya, Boeing Autonomous vehicle presentation, Presentation made at Boeing Office Delhi to Review team from USA, Gyeongsangbuk-do, South Korea.
209. Shantanu Bhattacharya, BioMEMS research at IIT Kanpur, QIP program on Microfluidics at IIT Guwahati, IIT Guwahati.
211. Shantanu Bhattacharya, BioMEMS and Microfluidics, MAMM-2012, CMERI, Durgapur.
212. Wahi P., Regenerative chatter in turning: a system with a time delay, NIT Durgapur, Durgapur.

Physics

216. Zakir Hossain, Interplay between superconductivity and magnetism in EuFe2As2, UGC-Sponsored National Seminar on Recent Trends in Physical Sciences at SSKM University, Dumka.
219. Sudeep Bhattacharjee, New frontiers in nanoscience and technology using multi element focused ion beams (MEFIB) from compact microwave driven plasmas, 14th International conference on Ion Sources (ICIS 2011), Giardini Naxos, ITALY (September 12 - 16, 2011).
222. R.Vijaya, Fiber lasers for Multi-wavelength, Broadband and Secure data transfer applications, Brain-storming session on Fiber lasers and related technologies (Sept. 5, 2011), RRCAT, Indore.
226. R.Vijaya, Spontaneous and stimulated emission from self-assembled photonic structures, Indo-US Bilateral workshop on Nanophotonics and Nanoplasmonics (Jan 9-12, 2012), IISc, Bangalore.
227. R.Vijaya, Photonic band gap structures and Device design, NITT SPIE-OSA Student Chapter (Feb. 17, 2012), NIT, Tiruchirappalli.
OTHER ACTIVITIES

PROFESSIONAL VISITS TO UNIVERSITIES/RESEARCH ORGANIZATIONS / INDUSTRIES

Aerospace Engineering


Biological Sciences and Bioengineering

4. Amitabha Bandyopadhyay, Odense University Hospital, Collaboration visit, Seven days.
5. D. S. Katti, Anna University Chennai, DST PAC meeting, Committee member, 27th-29th June.

Chemical Engineering

10. Santosh K. Gupta, University of Western Ontario, London, ON, Canada, Visiting Faculty, Visiting Professor of Chemical Engineering, Summer 2011.
13. Garg, S, Department of Chemical Engineering, NIT, Durgapur, To give lectures in a DST-SERC course on optimization, November 2011.

Civil Engineering


Electrical Engineering

16. K. V. Srivastava, National Chung Cheng University, Chia-Yi, Taiwan, Visiting Faculty, June 18-June 25, 2011.
Humanities and Social Sciences

18. P. M. Prasad, Ecole Centrale Nantes (ECN), France, Interaction with colleagues on joint project proposals under Faculty Mobility EMECW India-Lot 13a Fellowship, Visiting Faculty, June 18, 2011 - July 17, 2011.

Industrial Management and Engineering


Mechanical Engineering

27. Shantanu Bhattacharya, World Class University Program at Yeungnam University, Daegu, Dae-dong, South Korea, Visiting Scientist, Visiting Scientist, May-2011.

Mathematics ans Statistics

29. A. K. Lal., Concordia University, Montreal, Canada, Sep 2010 - May 2011.
30. R. Santhanam, University of Bergen, June 2011.
31. Shalabh, Institute of Statistics, Ludwig Maximillians University, Munich, Germany, 2011.
32. A. Anand, 26th Annual Conference, Ramanujan Mathematical Society, University of Allahabad, October 2-4, 2011.
34. Mohua Banerjee, Annual Workshop of the Calcutta Logic Circle (CLC), IBRAD, Kolkata, September 2011.
43. Peeyush Chandra, 15th Annual Conference of Vijnana Parishad of India, DAV College Kanpur, Nov. 4 - 6, 2012.
45. S. Dutta, Conference on Harmonic Analysis and Approximations, September 5 - 10, Armenia, Presented a talk ‘Completely bounded multipliers on L_p’.
48. M. Gupta (joint work with A. Bhar), International Workshop on Operator Theory and Its Applications, University of Seville, Seville, Spain, July 2011, delivered talk ‘On Orlicz Lorentz subspaces of bounded families and approximation type operators’.
52. D. Kundu, International Conference held at the Chinese University of Hong Kong, Dec. 27 - 31, 2011, delivered a talk ‘Bayesian Analysis of Progressively Censored Competing Risks Data’.
53. N. Misra, New Developments in theory and Applications of Statistics: An international conference in honor of Professor Moti Lal Tiku, Department of Statistics, Middle East Technical University, Ankara, Turkey, May 2 - 4, 2011, chaired a special invited session.

55. N. Misra, XXXI Annual Convention of Indian Society for Probability & Statistics (ISPS) and International Conference on Statistics, Department of Statistics, Cochin University of Science and Technology, December 19 - 22, 2011.


61. Shalabh, Conference of the Department of Statistics and Information Management, Reserve Bank of India, Chandigarh, March 2012.

Physics

62. Zakir Hossain, Max-Planck Institute CPfS, Dresden, Germany, Collaborative research work, Visiting Scientist, 18th June 2011 to 14th July 2011.
CONTINUING EDUCATION ACTIVITIES

Aerospace Engineering


Biological Sciences and Bioengineering

4. Pradip Sinha, UK-India Innovation and Leadership Meeting and Grand Finale of the Bio-Business Plan Competition- 2012, As part of UK-India Science Bridge objective to promote Bio-entrepreneurial activities, a Bio-Business plan competition is being hosted by IIT Kanpur in collaboration with C-CAMP Bangalore and BioCity Nottingham, UK, Indian Institute of Management, Bangalore (IIMB), 5-6 March 2012.

Chemical Engineering


Civil Engineering


Electrical Engineering


Industrial Management and Engineering


Mathematics And Statistics

22. Mohua Banerjee, Lecture series on Modal logic and algebra, 4th Indian School on Logic and its Applications (ISLA), Manipal University, January 2012.


Mechanical Engineering


27. Shantanu Bhattacharya, NPTEL Lectures on Microfluidic systems and design, Web Course through NPTEL series, IIT- Kanpur, Currently Underway.

29. Shantanu Bhattacharya, Hands on Fabrication training on design and fabrication of a microfluidic mixer, Funding from NPMAS, IIT-Kanpur, from 17~18th February, 2012.