

SECTION		MATERIALS SCIENCES
Sectional President	:	Prof. B.S. Murty, IIT Madras
Sectional Local Secretary	:	Prof. U.P. Singh, KIIT, Bhubaneswar
Sectional Recorder	:	Prof. D.K. Rai, Jaypee Inst. Inf. Tech., Noida

January 04, 2012		
14:00 – 17:00: Sectional Committee Meeting/Invited Lectures		
Venue	:	Campus-5, Hall-6, KIIT University
Presidential Address 14:00 – 14:30	:	B.S. Murty, IIT Madras: Excitements and challenges in nano science and technology
Invited lecture 14:30 – 14:55	:	Prof. C. Ravindran, Ryerson Univ., Canada: Light alloy processing revolutionizing the automotive industry
Young Scientist Award Presentation 14:55 – 15:15	:	Ashutosh Kumar Dubey, IIT Kanpur: Electrically stimulated enhanced cell proliferation on ferroelectric composites
15:15 – 15:35: Tea/Coffee Break		
Platinum Jubilee Lecture 15:35 – 16:05	:	G.K. Dey, BARC, Mumbai: High resolution electron microscopy of novel materials
Invited lecture 16:05 – 16:30	:	Prof. B.K. Mishra, IMMT Bhubaneswar: Discrete element method to study particulate systems
Invited lecture 16:30 – 16:55	:	Prof. Raju V. Ramanujan, Nanyang Tech. Univ., Singapore: NANOCURE: Curing diseases with nanomaterials
Invited lecture 16:55 – 17:20	:	Dr. A.B.S. Sastry, SRIVT, Hyderabad: Nano Materials by Herbal route
17.20:17.30	:	Dr. Sudarashan Dash, Full Bright Commission in India, Delhi: Fulbright-Nehru fellowship program
17.30 – 18.00: Sectional Committee Election		

January 05, 2012		
Venue	:	Campus-5, Hall-6, KIIT University
14:00 – 17:40: Invited Lectures		
Invited Lecture 14:00 – 14:25	:	B.V.R. Chowdari, National Univ. of Singapore, Singapore: High performance nanomaterials for lithium ion batteries
Invited Lecture 14:25 – 14:50	:	Krishna Rajan, Iowa State Univ., USA: Discovering the materials gene: informatics for materials discovery
Invited Lecture 14:50 – 15:15	:	S.K. Ray, IIT Kharagpur: Multifunctional devices using semiconductor nanostructures
Invited Lecture 15:15 – 15:40	:	S. Ram, IIT Kharagpur: Green-synthesis of optical nanofluids for biosensors and medicines
15:40 – 16:00: Tea/Coffee Break		
Invited Lecture 16:00 – 16:25	:	N. Ramakrishnan, GM, Bangalore: Li ion batteries for electric vehicles
Invited Lecture 16:25 – 16:50	:	Debashis Bhattacharjee, Tata Steel, The Netherlands: Steel industry meeting strategic challenges by innovative developments
Invited Lecture	:	S. Manjini, JSW, Vijayanagar: Development of advanced high

16:50 – 17:15		<i>strength steel: step towards green steel concept</i>
Invited Lecture 17:15 – 17:40	:	P. Bhargava, IIT Bombay: <i>Science and technology of dye sensitized solar cells</i>
15.00 – 17.30: Concurrent Poster Session – I		

January 06, 2012		
Venue	:	Campus-5, Hall-6, KIIT University
14:00 – 17:40: Invited Lectures/Oral Presentations		
Invited Lecture 14:00 – 14:25	:	R.K. Mandal, IT BHU, Varanasi: <i>Challenges of structure-property correlations in nano-metallic systems</i>
Invited Lecture 14:25 – 14:50	:	Satyam Suwas, IISc, Bangalore: <i>Evolution of crystallographic textures in materials processing and its implications</i>
Invited Lecture 14:50 – 15:15	:	G. Phani Kumar, IIT Madras: <i>Solidification of undercooled Heusler alloys</i>
Invited Lecture 15:15 – 15:40	:	N. Subba Reddy, Gyeongsang National University, Korea: <i>Computational intelligence in Ti-6Al-4V alloy design</i>
15:40 – 16:00: Tea/Coffee Break		
Invited Lecture 16:00 – 16:25	:	R. Gopalan, ARCI, Hyderabad: <i>High performance materials for automotive applications</i>
Invited Lecture 16:25 – 16:50	:	G.S. Vinod Kumar, HZB, Germany: <i>Liquid metal route foaming of aluminium alloys – scientific challenges and opportunities</i>
Invited Lecture 16:50 – 17:15	:	V. Srinivas, IIT Madras: <i>Giant magnetic effects in materials</i>
Oral Presentation 17:15 – 17:40	:	M. Jayabalan, SCTIMST, Thiruvananthapuram: <i>Biomechanics of polymeric nanocomposites for orthopedic applications-effect of processing</i>
15.00 – 17.30: Concurrent Poster Session – II		

January 07, 2012		
Venue	:	Campus-5, Hall-6, KIIT University
14.00 – 16.00: Invited Lectures		
Invited Lecture 14:00 – 14:20	:	S.R. Bakshi, IIT Madras: <i>Mechanical and thermal properties of carbon nanotube reinforced aluminium composites at multiple length scales</i>
Invited Lecture 14:20 – 14:40	:	K. Mondal, IIT Kanpur: <i>Crystallization of metallic glass</i>
Invited Lecture 14:40 – 15:00	:	J. Bhatt, VNIT Nagpur: <i>Evaluation of glass forming ability for metallic glasses based on thermodynamic criteria</i>
Invited Lecture 15:00 – 15:20	:	S. Kumar, Univ. Oxford, UK: <i>Intermetallic phase formation in DC casting of Al alloys</i>
Invited Lecture 15:20 – 15:40	:	S.K.S. Parashar, KIIT, Bhubaneswar: <i>Excitement of nanocrystalline ZnO</i>
Oral Presentation 15:40 – 16:00	:	G.K. Pradhan, IMMT, Bhubaneswar: <i>Shape controlled synthesis of α-Fe₂O₃: A novel photocatalyst for dye-degradation</i>
General Discussion and Recommendations		