



Annual Report 2011-12

A QUEST TO SOAR HIGH



INDIAN INSTITUTE OF TECHNOLOGY HYDERABAD



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> FROM THE DIRECTOR

IIT Hyderabad – Tinkering with Innovations



*We are what we repeatedly do; excellence, then,
is not an act but a habit.*

– Aristotle

Invention and innovations have been the governing vision for IIT Hyderabad. This vision is reflected in all aspects of IITH – research and development, teaching, new campus development, student activities and administration. This vision is reinforced by the fact that IITH has over 55 sponsored research projects in the last three years with a sanction amount of approximately Rs 50 crores. Just in the last year, IITH faculty published 135 papers in peer-reviewed international journals and international conferences. IITH has three research centers – Nanotechnology, X-Materials, and Cyber Physical Systems / Internet of Things; many more centers are in the offing. IITH has active collaboration with industries in India and abroad.

On the academic front, IITH is scaling rapidly while maintaining the highest academic quality. In the coming semester – Aug 2012 – IITH will have close to 1050 students; approximately 575 B.Techs., 50 M.Sc., 220 M.Techs., and 205 Ph.Ds. This is indeed a significant rise from the 111 B.Tech. students that were admitted to IITH in 2008, when IITH began operating. Today IITH has 12 vibrant departments, each growing at a very rapid pace. Moreover, there is a lot of emphasis on research in all the courses taught at IITH.

As can be seen in the report, IITH has very dynamic faculty, the total strength in August 2012 reaching close to 95. On the academic front IITH has made several innovations, most notable being, fractional credit courses, B. Tech. Minor in Entrepreneurship, and starting a unique B.Tech. program in Engineering Science – the key feature of this program is that it completely opens the doors to different specializations and provides a holistic engineering education. The basic structure is – the first 2.5 years (5 semesters) the student does courses in Math, Physics, Chemistry, and different fields of engineering. In the last 1.5 years (3 semesters) the student then specializes in any field of his / her choice – specialization is completely open: It could be any branch of engineering, sciences, liberal arts or design.

In the year 2011-12, former President Dr APJ Abdul Kalam taught a 1-credit course at IITH on 'Empowering 3 Billion'. Dr CNR Rao delivered the Foundation Day lecture and also

inaugurated the Nanotechnology Center.

In the year 2012-13, IITH will start a new academic program in Design and also add Fine Arts to the Liberal Arts department. Thus, we are moving towards creating an ecosystem for a holistic education.

The development of the first phase of the permanent campus has been done with a futuristic vision and rigour expected of IITs. This phase will consist of 3 academic buildings, hostels, faculty and staff housing.

IITH's ongoing collaboration with Japan is very active. Japanese architects have finalized the designs of the International Guest House and the Sports and Cultural Complex. The design of the state-of-the-art Lecture Hall complex and EE-CSE complex has begun. Moreover, Japanese faculty will be visiting IITH for more than a year and also teach courses and participate in research.

IITH now has MoUs and active collaboration with eight leading US universities and two leading Japanese universities. IITH has had several visiting faculty from USA, France and Canada, who taught fractional credit courses.

The Placement Cell has been very active. Due its efforts, the placement at IITH is almost 100%. IITH has taken a proactive step in starting a student counselling cell called 'Sunshine'. Student activities are very vibrant on the campus with major activities like the cultural-cum-technology festival 'Elan', clubs like Torque, Cephied, Arts Club, Rang De Manch, etc.

IITH is extremely thankful to Ordnance Factory - Medak for providing a beautiful campus while in transition, and the necessary infrastructure to accommodate the students, faculty, and some state-of-the-art research laboratories.

IITH is creating a unique holistic educational ecosystem that will foster cutting-edge research, learning and entrepreneurs. It is providing an environment wherein students and faculty are not afraid to experiment with high-risk ideas.

Prof UB Desai

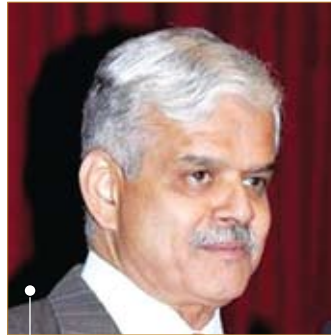


> BOARD OF GOVERNORS



CHAIRMAN

Mr Ajai Chowdhry
Founder – HCL
Chairman & CEO,
HCL Infosystems, Noida



MEMBER

Dr K Mohandas
Vice Chancellor
Kerala University of Health and
Allied Sciences
Thiruvananthapuram



MEMBER

Dr Kiran Mazumdar Shaw
Chairman & CEO
Biocon Limited, Bengaluru



EX-OFFICIO

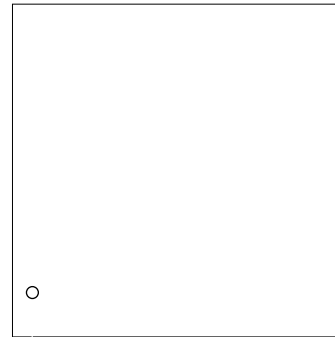
Prof UB Desai
Director
Indian Institute of Technology
Hyderabad

**MEMBER**

Mr Mammen Mathew
CMMI MRF Limited, Chennai

**MEMBER**

Mr MG Gopal
Principal Secretary
Department of Higher Education
Govt of Andhra Pradesh

**MEMBER**

Mr RP Sisodia

**SENATE NOMINEE**

Prof Vinayak Eswaran
Department of Mechanical Engineering
Indian Institute of Technology
Hyderabad

**SENATE NOMINEE**

Prof Faiz Khan
Department of Chemistry
Indian Institute of Technology
Hyderabad

**SPECIAL INVITEE**

Prof. Bhaskar Ramamurthi
Director
Indian Institute of Technology Madras



> CORE FACULTY

Biotechnology & Biomedical Engineering (BBE)

Chemical Engineering (CH)

Chemistry (CY)

Civil Engineering (CE)

Computer Science & Engineering (CSE)

Electrical Engineering (EE)

Liberal Arts (LA)

Materials Science & Engineering (MSE)

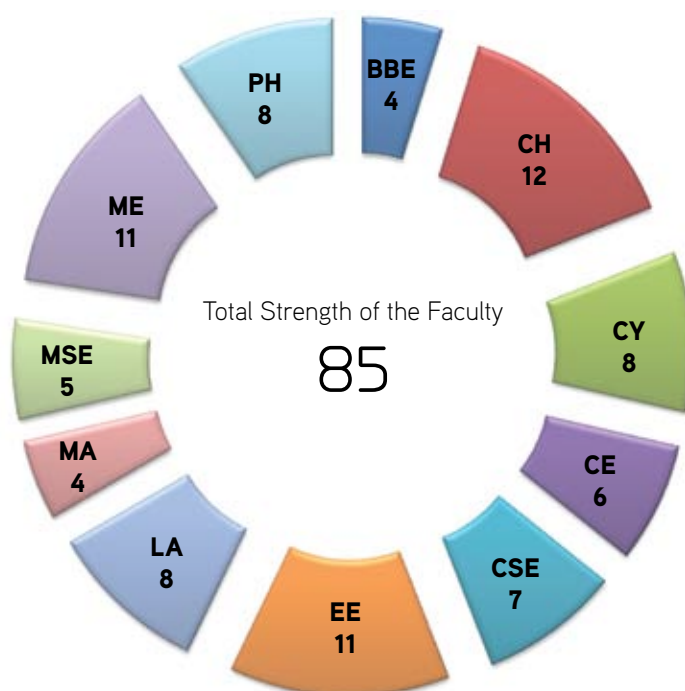
Mathematics (MA)

Mechanical Engineering (ME)

Physics (PH)



Faculty Strength in Various Departments





Deans



- **Faiz Ahmed Khan**

Ph.D - University of Hyderabad

Professor, HoD & Dean - Academics

Areas of Interest: Synthetic Organic Chemistry; Transition Metal-mediated Reactions in Organic Synthesis, Discovery of new Methodologies and Control of Stereo-chemistry in Organic Synthesis, Synthesis of Natural and Unnatural products, Chemical Synthesis in Ionic Liquids, Supported Catalysts.

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- **Vinayak Eswaran**

Ph.D - State University of NY at Stony Brook, USA

Professor, HoD & Dean - Faculty

Areas of Interest: Computational Fluid Mechanics and Heat Transfer.

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- **Kolluru VL Subramaniam**

Ph.D - Northwestern University, USA

Professor, HoD & Dean - Planning

Areas of Interest: Structural Strengthening using Bonded FRP Sensor Development for Monitoring Concrete; Damage Detection in Concrete; Concrete Durability

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Biotechnology & Biomedical Engineering



- **Basant Kumar Patel**

Ph.D - BHU

Assistant Professor & HoD

Areas of Interest: Molecular Biology of Prion and Amyloid Diseases; Yeast *Saccharomyces Cerevisiae* Genetics; Bio-chemistry and Bio-physics of Protein Misfolding.

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- **Renu John**

Ph.D - IIT Delhi

Assistant Professor

Areas of Interest: Novel Non-invasive Bio-imaging Techniques; Coherence Imaging and Microscopy Techniques; Molecular Contrast Agents and Targeted Molecular Imaging; Nanoparticles; Targeted Drug Delivery and Biophotonics Applications.

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- **Anindya Roy**

Ph.D - IISc

Assistant Professor

Areas of Interest: DNA Damage and Repair Processes; Mutagenesis; Carcinogenesis.

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- **NK Raghavendra**

Ph.D - IISc

Assistant Professor

Areas of Interest: Critical Interactions Between HIV-1 Integrase Enzyme and Human Proteins During Infection; Development of Small Molecule Inhibitors of HIV-1 Integrase and LEDGF/p75 Interaction as Potential Drug Molecules; Characterization of Additional Host Proteins Critical for HIV-1 Integration, in Addition to LEDGF/p75, Such that novel Drug Targets Can be Developed.

Email: raghunk@iith.ac.in

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- **Thenmalarchelvi Rathinavelan**

Ph.D - University of Madras

Assistant Professor

Areas of Interest: Bacterial Glycobiology; Transition State Structures of Proteins, DNA Protein Interaction; Nucleic Acids Structure and Dynamics.

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Chemical Engineering



- **Vinod Janardhanan**

Ph.D - KIT - Germany
Assistant Professor & HoD

Areas of Interest: Chemically Reacting Flows;
Elementary Heterogeneous Kinetics.

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- **Anand Mohan**

Ph.D - Texas A&M - USA
Assistant Professor

Areas of Interest: Cardiovascular Mechanics;
Non-Newtonian Fluid Mechanics.

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- **Chandra Shekhar Sharma**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: Carbon based MEMS; Hierarchical Carbon
Micro- and Nano- Structures; Electrospinning, Bio-inspired
Functional Surfaces.

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- **Dayadeep Monder**

Ph.D - University of Alberta - Canada
Assistant Professor

Areas of Interest: Solid Oxide Fuel Cells; Multi-scale Modeling
of Next Generation Energy Conversion and Storage Systems,
First Principles Catalysis.

Email: dmonder@iith.ac.in

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- **Debaprasad Shee**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: Catalysis on Metal and Metal Oxide:
Synthesis, Characterization and Reactivity; Multifunctional
Materials and Catalysts; Nanostructured Catalysts; Fuels and
Chemicals from Renewable Sources; Reaction Engineering,
Computational Catalysis.

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- **Kirti Chandra Sahu**

Ph.D - JNCASR - Bangalore
Assistant Professor

Areas of Interest: Instability and the transition to turbulence
in shear flows in general, and spatially developing flows in
complex geometries, multiphase flows and interfacial fluid
mechanics in particular. Lattice Boltzmann simulation of
multiphase flows using Graphics Processing Unit (GPU).

Email: ksahu@iith.ac.in

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- **Kishalay Mitra**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Optimization Under Uncertainty (Robust Optimization); Surrogate Modeling for Computationally Expensive Problems; Multi-Objective Optimization; Optimal Control, Evolutionary and Classical Algorithms.

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- **Narasimha Mangadoddy**

Ph.D - University of Queensland - Australia
Assistant Professor

Areas of Interest: Multi-phase flow modeling and flow characterization. Applications involved in Mineral Processing like dense medium cyclone (DMC), hydro-cyclone (HC), feed slurry distributor, grinding mills and column flotation devices, using using computational modeling techniques (multi-phase CFD / discrete element methods / coupling CFD-DEM models). New innovative / novel improved mineral processing equipment design through integrated CFD/DEM studies and physical modeling. Mathematical models based on industrial data and inputs from CFD / DEM, using non-linear model building techniques for various mineral processing units.

Email: narasimha@iith.ac.in

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- **Parag D Pawar**

Ph.D - Johns Hopkins - USA
Assistant Professor

Areas of Interest: Cell Adhesion and Motility; Multiscale Modeling of Intercellular Interactions in the Vasculature.

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- **Phanindra Jampana**

Ph.D - University of Alberta - Canada
Assistant Professor

Areas of Interest: Applications of Compressive Sensing, Stochastic Control; Applications of Image Processing.

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- **Saptarshi Majumdar**

Ph.D - IIT Kharagpur
Assistant Professor

Areas of Interest: Polymerization; Drug Delivery; Electrochemical Transport; Equilibrium & Non-equilibrium Thermodynamics; Process Modeling.

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- **Sunil Kumar Maity**

Ph.D - IIT Kharagpur
Assistant Professor

Areas of Interest: Utilization of low value by-products and conversion of renewable feedstocks to produce value-added products / or fuels or develop environmentally benign process. Catalyst preparation or modification and its characterization and applications in various upcoming fields. Development of process and catalyst for production of hydrogen from renewable feedstocks, utilization of glycerol to value-added products, production of green diesel from vegetable oils, and hydrodeoxygenation of biomass derived compounds.

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Chemistry



- **Faiz Ahmed Khan**

Ph.D - University of Hyderabad
Professor, HoD & Dean - Academics

Areas of Interest: Synthetic Organic Chemistry; Transition Metal-mediated Reactions in Organic Synthesis; Discovery of new Methodologies and Control of Stereo-chemistry in Organic Synthesis; Synthesis of Natural and Unnatural Products; Chemical Synthesis in Ionic Liquids, Supported Catalysts.

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- **Ch Subrahmanyam**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Catalysis; Nanomaterials and Energy Systems.

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- **G Satyanarayana**

Ph.D - IISc
Assistant Professor

Areas of Interest: Total Synthesis of Natural Products; Synthetic Methodology and Asymmetric Catalysis.

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- **M Deepa**

Ph.D - Delhi University
Assistant Professor

Areas of Interest: Fundamental (structure, morphology, and nanoscale conduction) and applied (electrochemical devices) aspects of conducting polymer and transition metal oxide based nanocomposites. Study of photoelectro chemistry of unique photoanodes based on quantum dots / carbon nanostructures for improved photoconversion efficiencies.

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- **Tarun Kanti Panda**

Ph.D - Free University - Berlin, Germany
Assistant Professor

Areas of Interest: To develop the homo- and hetero-multi-metallic lanthanide complexes with novel rigid P-N ligand systems either by conventional inorganic synthesis. The complete characterization by spectroscopic method and solid state structure determination reveals the detail understanding of bonding among the atoms associated with the complex. Catalytic application of molecule into various organic transformations. Synthesizing highly reactive main group organometallic compounds as well as lanthanide metal complexes, using Schlenck or Glove box techniques.

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- **G Prabu Sankar**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Fine chemical Synthesis; Molecular Sensors & Supramolecular Chemistry; Conversion of CO₂ to Methanol.

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- **DS Sharada**

Ph.D - University of Hyderabad
Assistant Professor

Areas of Interest: Synthetic Organic Chemistry - Development of New Synthetic Methodologies with Focus on Green Chemistry; Synthesis of Heterocyclics via Multicomponent Reactions & Click Chemistry and Medicinal Chemistry.

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- **Bhabani Shankar Mallik**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: Theoretical and Computational Chemistry.

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Civil Engineering



- **Kolluru VL Subramaniam**

Ph.D - Northwestern University - USA
Professor, HoD & Dean - Planning

Areas of Interest: Structural Strengthening using Bonded FRP Sensor Development for Monitoring Concrete; Damage Detection in Concrete; Concrete Durability.

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- **B Umashankar**

Ph.D - Prudue University - USA
Assistant Professor

Areas of Interest: Reinforced Soil; Soil-Structure Interaction; Foundation Engineering; Recyclable Materials in Geotechnics; Experimental Soil Mechanics.

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- **S Sireesh**

Ph.D - IISc
Assistant Professor

Areas of Interest: Pavement Geotechnics; Foundation Engineering; Ground Improvement; Soil and Rock Instrumentation; Numerical Modeling; Sub Surface Exploration and Soil Testing; Sustainable Design of Soil Structures; Infrastructure Asset Management.

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...Civil Engineering



- **Amirtham Rajagopal**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Multiscale Modeling of Damage / Failure in Materials; Mesh Free and Finite Element Methods, Computational Inelasticity.

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- **Shashidhar**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Contaminant Transport Modeling & Bioremediation; Environmental Hydraulics and Water Resources Engineering; Remote Sensing and GIS Applications in Environmental and Water Resources Engineering; Waste Water Treatment; Solid and Hazardous Waste Management; Surface and Ground Water Quality Modeling; Applications of Soft Computing Techniques in Environmental and Water Resources Engineering.

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- **KBVN Phanindra**

Ph.D - New Mexico State University - USA
Assistant Professor

Areas of Interest: Groundwater Flow and Transport Modeling; GIS Applications in Water Resources Engineering; Hydrogeology; Surface Water-groundwater Interactions.

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Computer Science & Engineering



- **C Krishna Mohan**

Ph.D - IIT Madras
Assistant Professor & HoD

Areas of Interest: Video Processing; Pattern Recognition and Neural Networks.

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- **MV Panduranga Rao**

Ph.D - IISc
Assistant Professor

Areas of Interest: Theoretical Computer Science

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- **Ravindra N Guravannavar**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Database Systems; Current Areas of Research include Query Processing and Optimization; Optimization of Stored Procedures and Application Rewrite.

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- **Ch Sobhan Babu**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Graph Theory; Game Theory; Algorithms and Combinatorics.

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- **Naveen Sivadasan**

Ph.D - Max-Planck Saarbrücken - Germany
Assistant Professor

Areas of Interest: Graph Theory and Algorithms.

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Phone: +91-40-23016076



- **Bheemarjuna Reddy Tamma**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Cyber-Physical Systems; Converged Radio Access Networks; Smart and Green Communication Networks; Wireless Multimedia; Intelligent Transportation Systems, and Network Security

Email: tbr@iiith.ac.in

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- **S Kalyanasundaram**

Ph.D - Georgia Tech - USA
Assistant Professor

Areas of Interest: Graph Theory; Game Theory; Algorithms and Combinatorics.

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Electrical Engineering



- **Mohammed Zafar Ali Khan**

Ph.D - IISc
Associate Professor & HoD

Areas of Interest: Space-time Coding for MIMO Channels; Distributed Space-time Coding and Cooperative Communication; Coding for Multiple-access and Relay Channels; Space-time Signal Processing; Joint Baseband-RF Optimization; Software Defined Radio; Cognitive Radio and MIMO Radar.

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Phone: +91-40-23016010



- **UB Desai**

Ph.D - Johns Hopkins - USA
Professor

Areas of Interest: Cyber Physical Systems; Cognitive Radio; Intra and Inter Vehicular Communication; Wireless Sensor Networks; Pervasive Sensor Environment; Multihop Cellular Communication; Vehicular Communication; Mesh Networking; Image and Video Fusion; Dim and Single Pixel Target Tracking in IR Video; Technologies for Enabling Fast Rural Credit; Applications on Smart Phones; Remote Patient Monitoring.

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...Electrical Engineering



- **Ashudeb Dutta**

Ph.D - IIT Kharagpur
Assistant Professor

Areas of Interest: RFIC; Energy Harvesting IC; Biomedical IC; MEMS Interfacing ckt.

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- **Sri Rama Murty Kodukula**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Signal Processing; Speech Analysis; Pattern Recognition.

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- **P Rajalakshmi**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Wireless Communications; Sensor Networks; Cognitive Radio; Green communications; Optical Networks; Embedded Systems.

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- **Shiv Govind Singh**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Micro/Nano Device fabrication (3D IC, MEMS, RF MEMS, Smart milk net), Device Simulation (3-D Solar Cell, 3-D electrical and thermal Modeling, TSV placement in 3D technology, Smart Technology for Concert wall Crack detection), Energy Harvesting (Ultra low power Solar based circuit, Mechanical to electrical conversion, hybrid circuit), Micro / Nanofluidics (Electronics Cooling, Blood flow in micro channel, Fluidics logic, Synthetic Tree).

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- **Vaskar Sarkar**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Power Market Design, Microgrid Design, Smart Grid Design, Load Modeling, HVDC Controller Design.

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- **Ketan P Detroja**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Systems and Control Engineering. Research Lab for Dynamics and Control as well as a Teaching Lab of UG Control Engineering. Development of Fault Diagnostic Framework for Electrical Machines. Advanced Process Control.

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- **Soumya Jana**

Ph.D - UIUC - USA
Assistant Professor

Areas of Interest: Multimedia Signal Processing and Compression; Network Communication; Information Theory.

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- **K Siva Kumar**

Ph.D - IISc
Assistant Professor

Areas of Interest: Multilevel Inverters; Open-end Winding Induction Motor Drives; Switched Mode Power Conversion; Micro Grids; Power Quality and Control.

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- **GVV Sharma**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Communication Theory; Signal Processing.

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- **Kiran Kuchi**

Ph.D - University of Texas at Arlington - USA
Assistant Professor

Areas of Interest: Communications; Signal Processing for Communications; Wireless Networks.

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Phone: +91-40-23016108

Liberal Arts



- **Badri Narayan Rath**

Ph.D - ISEC - Bangalore
Assistant Professor & HoD

Areas of Interest: Economic Growth; Macroeconomics; Innovation; Diffusion and Industry Dynamics; and Productivity and Efficiency Analysis.

Email: badri@iiith.ac.in

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- **Indira Jalli**

Ph.D - Hyderabad Central University
Assistant Professor

Areas of Interest: Indian History of Gender, Caste and Nation, Human Rights Law.

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...Liberal Arts



- **KP Prabheesh**

Ph.D - IIT Madras
Assistant Professor

Areas of Interest: Monetary Economics; International Finance and Applied Econometrics.

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- **Amrita Deb**

Ph.D - BHU - Varanasi
Assistant Professor

Areas of Interest: Protective Factors in Resilience among Adolescence, Resilience and Academic Achievement, Personality and Positive Psychology Intervention

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- **Srirupa Chatterjee**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: American Literature; Literary Theory; Rhetoric and Composition.

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- **Mahati Chittem**

Ph.D - University Sheffield - UK
Assistant Professor

Areas of Interest: Psycho-oncology; Chronic Illnesses; Medical Decision-Making; Health Promotion & Risk Prevention.

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- **Shubha Ranganathan**

Ph.D - IIT Bombay
Assistant Professor

Areas of interest: Cultural Psychology, Women and Mental Health, Alternate Paradigms within Psychology such as Critical Psychology, Feminist Approaches and Narrative Methods

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- **Haripriya Narasimhan**

Ph.D - Syracuse University - NY, USA
Assistant Professor

Areas of Interest: Anthropology; Health; Media; Gender; South Asia.

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Materials Science & Engineering



● Pinaki Prasad Bhattacharjee

Ph.D - IIT Kanpur
Assistant Professor & HoD

Areas of Interest: Bulk nanostructured materials, severe plastic deformation, recrystallization, crystallographic texture, novel light metals alloys, electron microscopy, multicomponent high entropy alloys

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● Suhash Ranjan Dey

Ph.D - University Paul-Verlaine - Metz, France
Assistant Professor

Areas of Interest: Design of novel alloys with enhanced properties. Alloy design through synthesis and its further processing: Different elements (combinatorial approach) are combined to synthesize alloys using electro-deposition and powder metallurgy techniques. Also properties are further tailored according to the applications using various materials processing techniques. Characterization of the designed alloys: The designed alloys are characterized further to determine their crystallographic phase and orientations. Mainly, X-ray diffraction and electron microscopy are utilized.

Properties determination of the designed alloys: To select-out the alloy of interest, the structural and / or functional properties of the designed alloys are determined using various scientific equipment / tools. Targeted Alloys / Processing: CIGS and CZTS photovoltaics; Titanium alloys for structural and biomedical applications; friction stir welding / Processing of dissimilar / similar alloys

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● Ranjith Ramadurai

Ph.D - IISc
Assistant Professor

Areas of Interest: Multiferroic oxide thin films for fundamental science and functional science and functional device applications. High-k dielectric thin films for CMOS technology and memory device applications. Surface and interfaces of oxide hetero structures on silicon and single crystalline oxide substrates. Influence of process conditions, strain engineering and interface engineering on domains and domain dynamics of multiferroic thin films utilizing scanning probe microscope.

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● Bharat Bhooshan Panigrahi

Ph.D - IIT Kharagpur
Assistant Professor

Areas of Interest: Powder Metallurgy; Sintering; Nano Materials; Advanced Ceramics; Alloys and Steels.

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● Atul Deshpande

Ph.D - Max-Planck Institute of Colloids and Interfaces - Potsdam, Germany
Assistant Professor

Areas of Interest: Nanoparticle Synthesis and Self Assembly, Sol-gel Processes, Templating Techniques, Novel Nanostructured Materials for Advanced Applications Including Catalysis, Solid Oxide Fuel Cells (SOFC), Ferroelectric Materials, Bone Replacement Materials and Drug Delivery Systems.

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Mathematics



- **Challa Subrahmanya Sastry**

Ph.D - IIT Kanpur

Assistant Professor & HoD

Areas of Interest: Compressive Sensing Theory; Wavelets; Computed Tomography

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- **Balasubramaniam Jayaram**

Ph.D - Sri Satyasai Institute of Higher Learning

Assistant Professor

Areas of Interest: Computational Intelligence involving Fuzzy Set Theory, more precisely:

- ♦ Fuzzy Logic connectives and their applications
- ♦ Fuzzy Implications: Generation and Properties
- ♦ Functional Equations - specifically involving fuzzy logic connectives
- ♦ Approximate Reasoning
- ♦ Triangular norms and their residuals

Fuzzy Clustering and other Unsupervised Learning methods

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- **Puranam Anantha Lakshmi Narayana**

Ph.D - IIT Kharagpur

Assistant Professor

Areas of Interest: Fluid Mechanics; Convection in Porous Media; Stability of Flows

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- **G Ramesh**

Ph.D - IIT Madras

Assistant Professor

Areas of Interest: Functional Analysis and Operator Algebras

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Mechanical Engineering



- **Vinayak Eswaran**

Ph.D - State University of NY at Stony Brook - USA

Professor, HoD & Dean - Faculty

Areas of Interest: Computational Fluid Mechanics and Heat Transfer.

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- **M Ramji**

Ph.D - IIT Madras

Assistant Professor

Areas of Interest: Composite Repair; Fracture and Damage Mechanics; Experimental Stress Analysis

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- **R Prasanth Kumar**

Ph.D - IIT Kharagpur
Assistant Professor

Areas of Interest: Development of Humanoid Robot; Snake Robot for Search and Rescue; Dynamic Biped Walker and Quadruped Robot.

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- **B Venkatesham**

Ph.D - IISc
Assistant Professor

Areas of Interest: Vibration & Acoustics, Engineering Noise Control and Sound Quality.

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- **Ashok Kumar Pandey**

Ph.D - IISc
Assistant Professor

Areas of Interest: MEMS, Micro and Nanomechanics

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Phone: +91 (40) 2301 6085



- **K Venkatasubbaiah**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: Research interest in the field of Computational Fluid Dynamics (CFD); Heat Transfer, Supersonic and Hypersonic flows. The emphasis of research is to understand the fluid flow and heat transfer characteristics in various applications.

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- **Abhay Sharma**

Ph.D - IIT Roorke
Assistant Professor

Areas of Interest: Manufacturing Process; Sustainable Manufacturing and New Process Development

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- **Raja Banerjee**

Ph.D - University of Missouri Rolla - USA
Assistant Professor

Areas of Interest: Computation Fluid Dynamics (CFD), Multiphase Flow, Turbulence and Thermodynamics

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...Mechanical Engineering



- **S Suryakumar**

Ph.D - IIT Bombay
Assistant Professor

Areas of Interest: Rapid Prototyping, CNC machining, Manufacturing

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- **K Bhaskar**

Ph.D - IIT Kanpur
Assistant Professor

Areas of Interest: Bluff Body Flows, Absolute / Convective Instabilities in Nonparallel Flows, Flow Receptivity / Sensitivity via Adjoint Methods

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- **C P Vyasrayani**

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Assistant Professor

Areas of Interest: MEMS, Micro and Nanomechanics

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Physics



- **Anjan Kumar Giri**

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Associate Professor & HoD

Areas of Interest: Flavour Physics, CP Violation and Neutrino Physics

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- **V Kanchana**

Ph.D - Anna University
Assistant Professor

Areas of Interest: Magnetism, Superconductivity, Lattice Dynamics, Materials under Extreme conditions, Exploring Thermoelectric materials, Rare-Earth and Actinides compounds, Scintillators.

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- **Saket Asthana**

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Assistant Professor

Areas of Interest: Multiferroic materials, Colossal Magnetoresistive (CMR) and other Nanostructural magnetic materials, Spin crossover materials, Photomagnetism, Material Synthesis

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- **Prem Pal**

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Assistant Professor

Areas of Interest: MEMS/Microelectronics technology, Wet Chemical based Micromachining, MEMS-based Bio / chemical and Inertial Sensors, Polymer MEMS, Thin films for MEMS

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- **Manish Niranjana**

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Areas of Interest: Theoretical Condensed matter and Materials Physics

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- **Dabashish Choudhary**

Ph.D - Jadavpur University

Assistant Professor

Areas of Interest: Soft Condensed Matter, Biological Physics, Statistical Physics

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- **Narendra Sahu**

Ph.D - IIT Bombay

Assistant Professor

Areas of Interest: Beyond SM Physics, Model Building (Neutrino Physics and Dark Matter), Leptogenesis, Direct, Indirect and Collider Search of Dark Matter

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- **Apoorva Nagar**

Ph.D - TIFR

Assistant Professor

Areas of Interest: Nonequilibrium Statistical Mechanics, Biological Physics

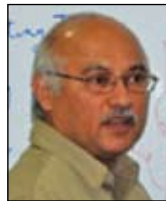
Email: apoorva.nagar@iith.ac.in

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Honorary Faculty

Computer Science & Electrical Engineering



- **PR Kumar**

Professor

Areas of Interest: Wireless Networks, Sensor Networks, Convergence with Control, Belief Propagation / Sensor Networks, Communication Networks, Semiconductor Manufacturing, Manufacturing Systems, Systems Theory, Control, Adaptive Systems, Learning, Neural Networks, Optimization, Simulated Annealing, Stochastic Systems, Financial Economics.

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- **V Umapathi Reddy**

Professor

Areas of Interest: Wireless Communications, Blind Modulation Classification, MIMO radar

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Mechanical Engineering



- **M Vidyasagar**

Professor

Areas of Interest: System and Control Theory and its Applications. Problems in Stochastic Realization, specifically Approximating High-order Markov and Hidden Markov Processes by Lower-order Processes.

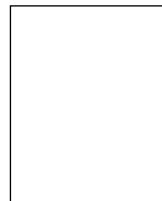
Email: _____



Adjunct Faculty



- **Srinivasan Seshadri**
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- **Bhaskar Gadepally**
Global Education
Ohio State University Columbu, USA
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- **Sriram K Rajamani**
Assistant Managing Director
Microsoft Research India, Bangalore.
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- **Paresh Kumar Narayan**
Faculty of Business and Law
School of Accounting Economics and Finance
Deakin University, Australia
Email: narayan@deakin.edu.au



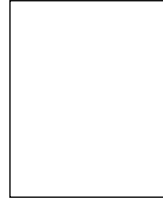
Visiting Faculty

Civil Engineering



- **MR Madhav**
Professor
01.07.2010 to 30.06.2012

Electrical Engineering

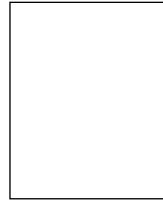


- **VGK Murti**
Professor
04.08.2009 to 03.08.2010

Computer Science and Electrical Engineering



- **SSSP Rao**
Professor
25.08.2009 to 30.06.2012

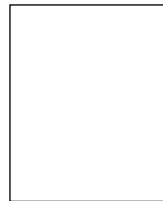


- **V Venkat Rao**
Professor
04.08.2009 to 22.09.2011

Computer Science and Engineering



- **Kesav Vithal Nori**
Professor
01.08.2010 to 31.07.2012



- **Prof Lakshminarayana K Choudur**
Professor
05.03.2012 to 04.05.2012

Mathematics & Computer Science & Engineering



- **Uma N Iyer**
Associate Professor
08.06.2011 to 07.08.2011

Mathematics



- **Michael Nathaniel Bleicher**
Distinguished Visiting Professor
12.09.2011 to 11.11.2011

Materials Science and Engineering



- **Prof Alain Hazotte**
Distinguished Visiting Professor
09.04.2012 08.05.2012

Mechanical Engineering



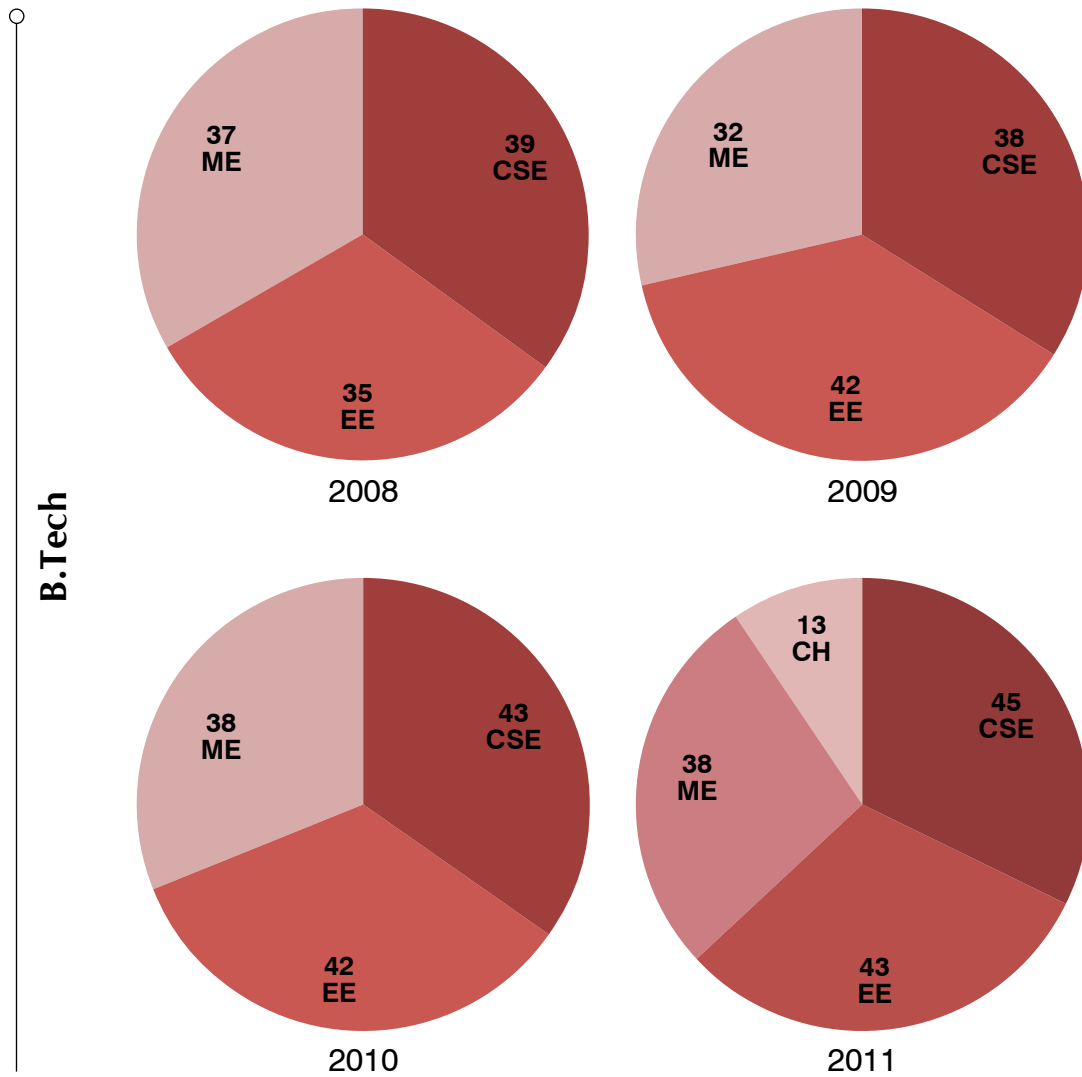
- **Surya Pratap Vanka**
Professor
01.06.2010 to 31.10.2010



- **BS Sarma**
Professor
01.01.2010 to 31.12.2011

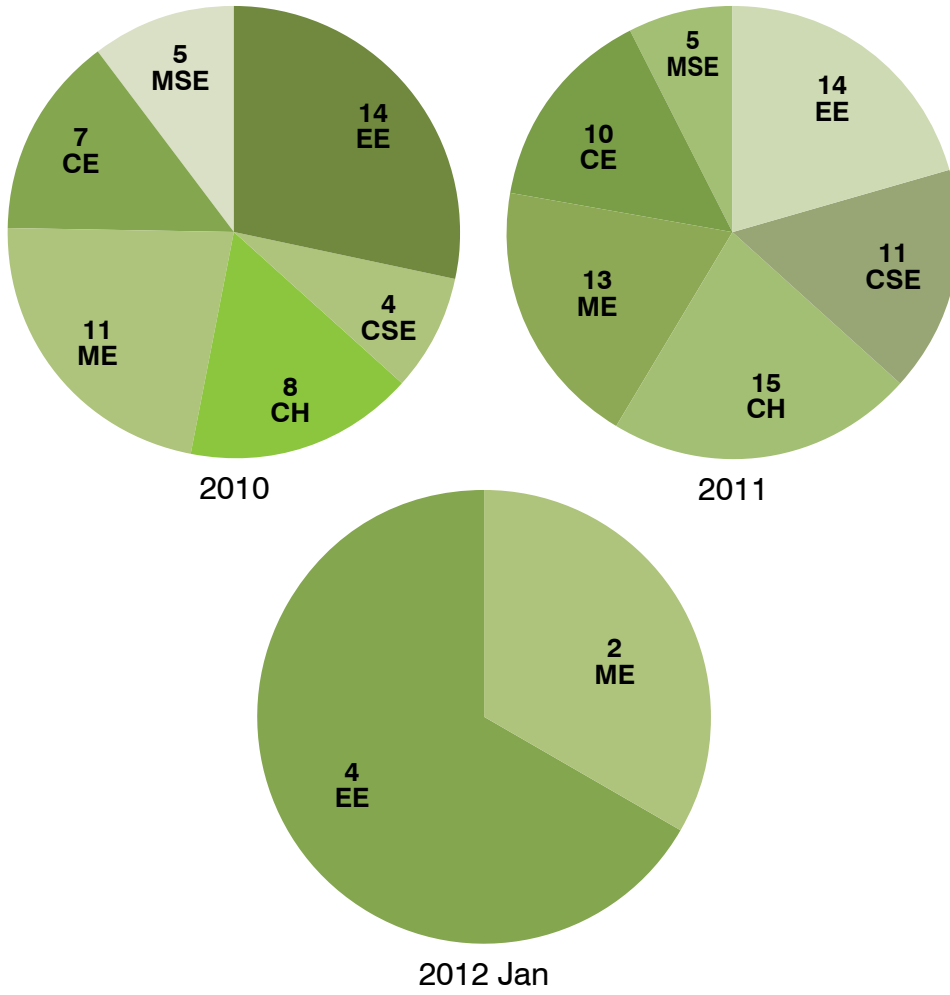


> COURSE COMPOSITION

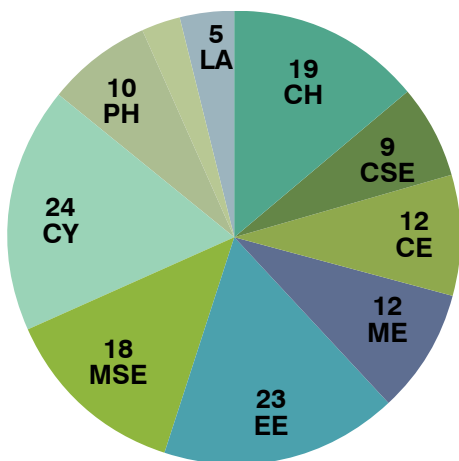


CH - Chemical Engineering; EE - Electrical Engineering; ME - Mechanical Engineering; LA - Liberal Arts; MSE - Materials Science & Engineering; CSE - Computer Science & Engineering; CE - Civil Engineering; BBE - Biotech & Biomedical Engineering; CY - Chemistry; PH - Physics; MA - Mathematics

M.Tech



Ph.D





> CAMPUS EVENTS

6th National Symposium on National Frontiers of Engineering (NatFOE-2011)

The 6th National Symposium on National Frontiers of Engineering (NatFOE 2011), the flagship event of the Indian National Academy of Engineers (INAE), was organized at IITH on 2-3 September 2011. The symposium was attended by nearly 100 participants including 17 distinguished speakers and 29 invited participants from all over India. The Inaugural function was attended by Chief Guest Padma Sri Dr PS Goel (Chairman, Recruitment and Assessment Centre, DRDO, Ministry of Defence), Dr KV Raghavan (Vice President, INAE) and Dr MJ Zarabi (Vice President, INAE).

Thanking INAE for giving an opportunity to host this prestigious event at IIT Hyderabad, Prof UB Desai (Director, IITH) emphasized that the theme of this year's symposium 'Green Technologies' was chosen in such a way to cover most of the engineering disciplines so that a multidisciplinary approach may be adopted for this emerging area. Dr Zarabi articulated that young engineers to be more proactive and expressive towards their research needs. Dr Goel called all young engineers to adopt a unified approach to develop technologies which can benefit directly to the society. He further added that as engineers, we need not to only come up with solutions to the problems but rather implementation also as solution without implementation is not meaningful.

The Inaugural function was followed by two plenary talks by Prof Ashok Misra (Former Director, IIT Bombay) and Prof Juzer Vasi (IIT Bombay).

Prof Mishra talked about Green Chemistry and suggested that lower energy and fuel consumption and minimization of waste along with designing safer chemicals and reuse of feedstock are the major challenges of green chemistry. Prof Vasi emphasized the need of developing highly efficient solar cells for grid connector applications. He said that Si-based solar cells may be a cost-effective approach to energy consumption.

After the plenary talks, keynote lectures were delivered in two parallel tracks – 'Green ICT' and 'Green Structures'. In 'Green ICT', Dr G Venkatesh (CTO, Sasken) and Prof YN Srikant (IISc Bangalore) spoke on 'Green Communication' and 'Energy Saving Software Systems' respectively. In 'Green Structures', Prof SK Bhattacharyya (Director, CBRI Roorkee) discussed 'Sustainable Materials for Green Structures', and Dr Manmohan Kalgal (Ultra-Tech Cement Ltd) explained star ratings under 'Green Rating for Integrated Habitat Assessment' (GRIHA).

The key note addresses included 'Green Telecom Operations' by Dr Girija Narlikar (Core Athena Systems), 'Engineering Frontiers for Micro-Nano-Bio Sensors' by Lt Gen (Dr) VJ Sundaram, 'Eco-Friendly Building Materials' by Prof KVL Subramainiam, IITH) and 'Green Highways' by Dr M Amaranath Reddy. There was a panel discussion on 'R&D in Green Technologies: Needs and Expectations of Young Researchers'.



Prof UB Desai lighting the inaugural lamp.



Dr PS Goel giving introductory remarks at the opening session of NatFOE-2011.



Delegates at NatFOE-2011.

On the second day, four keynote and three invited lectures were delivered in two tracks – ‘Green Energy’ and ‘Green Materials and Processes’.

Prof Rangan Banerjee (IIT Bombay) discussed ‘Green Energy for Future Sustainable Energy Systems’. Prof SV Kailas (IISc Bangalore) spoke on ‘Eco-Friendly Aspects of Friction Stir Welding / Processing’.

Other topics included ‘Distributed Clean Power Generation for Rural Energy Security’ by Dr Akanksha Chaurey (Director DES, TERI) and ‘Smarter Energy: The Promise of Cyber-Physical System’ by Dr Shivkumar Kalyanaraman (IBM).

In the Invited Lectures category, Dr Preeti Aghalayam (IIT Madras) spoke on ‘Underground Coal Gasification’. Dr SK Bhaumik (NAL Bangalore) and Dr P Muthukumar (IIT Guwahati) spoke on ‘Smart Metallic Materials’ and ‘Novel Porous Radiant Burners for LPG Cooking’ respectively.

Participants

Dr Navin Kumar (IIT Ropar); Dr E Anil Kumar (IIT Indore); Dr Meka Srinivasa Rao (DDIT, DD University, Nadiyad, Gujarat); Dr Ritunesh Kumar (IIT Indore); Dr Sudhakar Subudhi (NIT Calicut); Dr Arul Prakash (IIT Madras); Dr Santi Prasad Maity (BESU Shibpur); Dr Jyoti Prasad Chakroborty (RGPIT, Bareilly); Dr Dinesh Thakur (DIAT, DRDO); Dr Amaresh Dalal (IIT Guwahati); Dr Shrikrishna Joshi (IIT Guwahati); Mr Rahul Banerjee (NIT Agartala); Dr Pranesh Sengupta (BARC); Dr Arvind Tiwari (Manmohan Memorial Polytechnic, Nepal); Dr R Ramjee (IIT Ropar); Dr Vimal Kumar (IIT Roorkee); Dr Bhushan Jagyasi (TCS Innovation Labs Mumbai); Dr Deepthi Chander (CDAC Mumbai); Dr TJ Sarvoththama Jothi (NIT Calicut); Dr Padmaja Joshi (CDAC Mumbai); Dr Jitendra Sangwai (IIT Madras); Dr Sambandam Anandan (NIT Trichy); Dr K Gopi Krishna (BITS Pilani, Hyderabad); Dr T Srinivas (BARC); Dr VR Vinayaka Rao (BITS Pilani, Hyderabad); Mr MVN Sivakumar (BITS Pilani, Hyderabad); Mr M Venu (BITS Pilani, Hyderabad); Dr Genemala Haobijam (IIT Mandi); Dr Praveen Kumar (Engineering College, Kota).



Bringing 'Sunshine' into Students' Lives

In today's highly competitive environment, it is not unusual for students to experience social, personal or academic problems in their day-to-day lives. The growing pressure to excel everywhere often leads to emotional or psychological turmoil, thus disturbing one's peace of mind. In an institution such as IIT Hyderabad, these disturbances may surface all the more frequently, when one is away from his / her protective social environment.

'Sunshine', our Counseling Cell, helps the students to focus on and understand clearly the issues that concern them. This includes tackling personal, family and peer problems as well as managing academics more responsibly. Student Counselors are trained in handling such sensitive issues, thereby providing them with skills to create a comfortable and confidential environment where the student is at ease to discuss anything bothering him/her. This process involves no medication, only face-to-face interaction.



4th Foundation Day Celebrations



Prof CNR Rao inaugurating the 4th Foundation Day Celebrations by lighting the lamp.



Prof UB Desai presenting a memento to Prof. CNR Rao.

IIT Hyderabad celebrated its 4th Foundation Day on 10 March 2012, renewing its commitment to excel in the fields of both research and teaching. The Chief Guest on the occasion, Prof CNR Rao (Chairman, Scientific Advisory Council to the Prime Minister of India and National Chair Professor), was welcomed and briefed by Dr UB Desai (Director, IIT Hyderabad) on the milestones achieved by the Institute since its inception in 2008.

Prof CNR Rao was also briefed on the developmental work at Kandi, where the permanent campus of IIT Hyderabad will be commissioned by August 2013.

Prof Rao also gave away 'Excellence Awards' for teaching and academics to IITH faculty and students / research scholars respectively. The 'Excellence Awards' for teaching were awarded to Dr Ashok Kumar Pandey, Dr Narasimha Mangadoddy, Dr M Deepa and Dr Naveen Sivadasan.



...CAMPUS EVENTS

Awards for Excellence in Teaching



Awards for Excellence in Academics



Nano-X Inauguration

Prof CNR Rao inaugurated the Centre for Nano-X, which is equipped with cleanroom environment with state-of-the-art research facilities for cutting-edge research in Nano-Electronics, Nano-Materials and Nano-Fabrication.

Prof Rao interacted with the faculty members after the inauguration of Nano-X.



Guest Lecture by Dr Shashi Tharoor

On 22 February 2012, the students and faculty of IITH had the privilege of listening to a guest lecture by Dr Shashi Tharoor on 'India and the 21st Century World: Prospects and Challenges'. He spoke on how the present scenario of India at the macro level throws up opportunities for improvement, and urged the students to think out of the box and be thoroughly informed in today's globalized environment.

Dr Tharoor has been everything from a United Nations peacekeeper, a refugee worker, a human rights activist, an award winning author, an excellent orator, and a former Minister of State for External Affairs. He served as UN Under-Secretary General for Communications and Public Information under former Secretary General Kofi Annan. He is currently an elected member of the Indian Parliament from the Thiruvananthapuram constituency in Kerala.

Extramural Lecture by Ms Ira Trivedi

On 14 March 2012, Ms Ira Trivedi (Indian novelist, yogini, entrepreneur and world-renowned speaker) addressed the students and staff of IITH.

Ms Trivedi's works 'What would you do to save the world?', 'The Great Indian Love Story' and 'There is no love on Wall Street' have been translated into several regional languages, as well as into some foreign languages.





...CAMPUS EVENTS



IITH Students Interact with US Astronaut

The US Consulate General of Hyderabad and Birla Science Centre hosted former NASA astronaut Dr Mary Ellen Weber. Dr Weber delivered a talk at the Birla Planetarium on 'The Experience, Majesty and Future of Space', after which she interacted with IITH students, answering their queries.

IITH Students at 'Mood Indigo'

IIT Bombay's 'Mood Indigo' (popularly known as 'Moodl') is the biggest college cultural festival of India, attracting a whopping 80,000 students from more than 500 colleges all over the country.

In the stage play competition named 'Third Bell', IITH students got 6th position in a fray of 45 teams.



National Service Scheme at IITH

The National Service Scheme (NSS) program at IIT Hyderabad is conducted by the students under the guidance of an NSS faculty coordinator and a student coordinator. Under this two-semester program, a student renders social service to nearby schools and villages, and thereby acquires a deeper understanding of today's social reality in rural India.



The following activities were organized in 2011-12:

- ◆ Camps in nearby villages, to improve educational conditions for school students. Activities included education drives, cleanliness campaigns and environment awareness drive were taken up.
- ◆ Teaching activities and recreational events like 'learning and fun' quiz / painting competitions. Prizes were awarded to the winners.
- ◆ A blood donation camp was also held, at which many students and faculty came forward to donate their blood.
- ◆ Under a 'tree plantation drive', over 300 saplings were planted across the campus, to make it more green and beautiful.
- ◆ A 'clothes donation campaign' was also held. The clothes collected were distributed to poor children in the villages

International Women's Day

International Women's Day was celebrated at the campus on 8 March 2012. Ms Katherine Dhanani, US Consul General, Hyderabad, who was invited to the celebrations, spoke on the changing trends in women's involvement and participation in managerial and professional positions in general, and in the US State Department in particular.

Data about women's participation in education, employment and politics reveals that while women are adequately represented at the lower levels, there is a distinct barrier to their representation at higher positions. Ms Dhanani cited the reasons for this, and suggested possible solutions for the same. She also invited perspectives from the students on the experiences, issues and concerns of Indian women.



Inter-IIT Sports Meet 2011

All the IITs compete in a variety of sports held under the purview of the annual Inter-IIT Sports Meet, which is held in December in one of the seven IITs by a policy of rotation. The award consists of a rolling shield that is presented to the winning IIT every year which is decided based on the weighted average of the points of the events. There are three prizes (gold, silver and bronze) for every event. Separate events for boys and girls are organized and points are tallied separately for determining the final winner.

The students of IITH participated in the 47th edition of the Meet at IIT Kharagpur. The team did very well in several events, and won a bronze medal in the football tournament. IITH was the only participant from among the 'new IITs' in the hockey tournament, and gave a very good account of itself.

National Sports Organization

Sports at IITH generate a lot of enthusiasm from both within the campus and other colleges across India. Our academic calendar is crowded with sporting events like inter-department, inter-hostel, inter-collegiate and inter-IIT tournaments. Excellent facilities are available here, including a well-equipped gymnasium, a football-cum-cricket ground, a basketball court, a badminton court, a flood-lit volley ball, and a lawn-tennis court. All this, combined with the untiring commitment and enthusiasm of the student community, with encouragement and guidance from the faculty, provides tremendous opportunities for students to hone their sporting talents. IITH regularly invites and visits other colleges for one-day sports meets to strengthen bonds and inculcate the spirit of sportsmanship.





...CAMPUS EVENTS

Celebrations

India's 65th Independence Day

The students, faculty and staff of IITH celebrated India's 65th Independence Day on 15 August 2011 in the Institute premises. Dr Uday Desai (Director - IITH) hoisted the national flag and gave an inspiring speech. The National Anthem was followed by a lively cultural program by the students.



India's 62nd Republic Day

Republic Day commemorates the date (26 January 1950) on which the Constitution of India came into force replacing the Government of India Act 1935 as the governing document of India. On 26 January 2012, IITH students and staff joyfully celebrated the day through various cultural programs and distribution of sweets. There was also an exhibition of mini-projects done by B Tech (1st year) students.

Sankranti

Owing to India's vast geography and cultural diversity, this festival is celebrated for innumerable reasons and in innumerable ways depending on the climate, agricultural environment, cultural background and location. IITH students celebrated the day with colourful Rangoli patterns, special dishes and a fascinating kite-flying competition.



Holi

Holi - also known as Dhuli, Dhulheti, Dhulandi or Dhulendi - is celebrated by people throwing scented powder and perfume at each other. Bonfires, called Holika Dahan', are lit on the eve of the festival. No one expects polite behavior; as a result, the atmosphere is filled with excitement, fun and joy for the student community.



Onam

Onam, festival of Kerala to remember King Mahabali was celebrated by the students. Students participating in tug of war during last years Onam celebration.

Advaya: IITH's Intra-Institute Technical Festival

'Advaya' – the first intra-institute technical festival of IIT Hyderabad – was held on 5-6 November 2011, based on the theme 'Invention'. The driving force behind its inception was the desire to integrate scientific and technical thinking into the minds of the students. Mankind's ever-increasing quest for knowledge has been the reason for its exponential development over the ages. "To know, to create and to be known" has been the motto of all great technical thinkers. Advaya brought out these characteristics of the students to the forefront in such a way that even passersby, who weren't interested in it in the first place, got hungry and greedy for raw scientific knowledge. Advaya had a lot of clashing of robots, cracking of codes, fusion of circuits and many other mind-blowing and infectious technical events.

To know more about Advaya, please visit:

- ♦ <http://www.iith.ac.in/advaya/torque.html>
- ♦ <http://www.iith.ac.in/advaya/infero.html>
- ♦ <http://www.iith.ac.in/advaya/robotics.html>
- ♦ <http://www.iith.ac.in/advaya/informals.html#projectx>
- ♦ <http://www.iith.ac.in/advaya/lan.html>
- ♦ <http://www.iith.ac.in/advaya/kludge.html>
- ♦ <http://www.iith.ac.in/advaya/elektronica.html>



Dipawali

Students got together to celebrate the spirit of Dipawali. Rangoli designs, bursting of crackers and sweets distribution formed part of the celebrations.

The atmosphere reverberated with the sounds of crackers coupled with excitement of the student community.



...CAMPUS EVENTS

Clubs at IITH

Endeavour – The Science Documentary Club

Visual communication through the medium of short documentaries on Science and Technology has become extremely popular, since they bring to life, the basic concepts of engineering.

'Endeavour' is a hobby club that seeks to 'imbibe and acquire scientific knowledge and help disseminate it in IIT Hyderabad; and enable the curious and ignited minds of IIT (Inspire, Innovate and Transform) to discover and unravel the mysteries of science, and thus become fountainheads of scientific thinking'. Endeavour screens documentaries on science and engineering every month, which are followed by brief group discussions. The club also organizes quizzes on science and technology.

To know more about Endeavour, please visit <http://gymkhana.iith.ac.in/sci-tech/>



Cepheid: The Astronomy Club

Humans have always been fascinated by what lies beyond this Earth. They have continuously tried to discover and understand the universe and its many wonders.

Some of us here at IIT Hyderabad also share this passion for the universe and hope to learn as much as we can about it. Cepheid's goal is to help all Astronomy enthusiasts on the campus to pursue their interest in that glorious 'beyond'.

To know more about the Club, visit <http://www.iith.ac.in/advaya/cepheid.html>

The Arts Club

Fine art or the fine arts encompass art forms developed primarily for aesthetics and / or concept, rather than practical application. As the popular saying goes, "A great artist is always before his time or behind it." The Arts Club of IITH promotes various events in drawing, painting, poster-making, sketching, etc.



Torque - The Automobile Club

For all aficionados of cars, motorcycles and other automobiles, 'Torque' – the automobile club of IIT Hyderabad – is an ideal haven. Through automobile quizzes, creative activities and other activities, Torque provides regular updates on the latest goings-on in the field of automobiles.



The Dance Club

The Dance Club is a part of the cultural domain of the Student Gymkhana of IITH. Driven by the belief that 'a dance is a poem of which each movement is a word', the Dance Club seeks to make its own name in the competitions in which it performs. The Institute's dance team gave a very good performance in Elan-2k11.

Rang De Manch - The Drama Club

Drama is defined as a specific mode of fiction represented in performance. 'Rang De Manch' tries to bring out the underlying talents of the Institute's students in various drama elements like acting, directing, writing scripts, etc. The club has performed in various inter-college cultural fests.



Elektronika - The Electronics Club

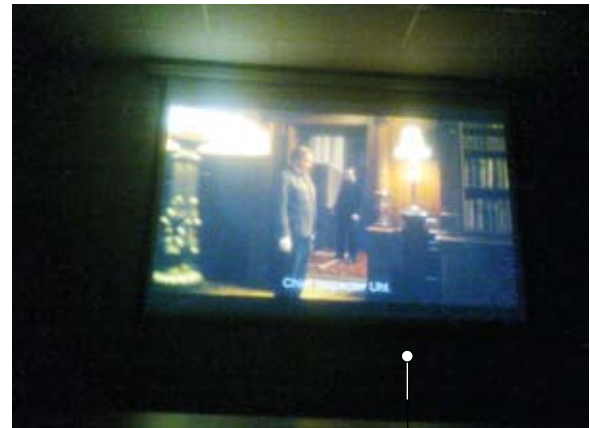
Elektronika is for e-enthusiasts who love tweaking with electronic gadgets. The club seeks to teach and help interested students in understanding the seemingly incomprehensible electronic gadgets in the world today. It also assists them in developing devices conceptualized by them. It strives to invoke their curiosity and interest in electronics. Students do various projects under the club, with the assistance of the professors wherever necessary. Some of the projects are chosen to improve the Institute's e-infrastructure.



...CAMPUS EVENTS

'Behind the Lens' - The Movie Club

The cinema is not an art which films life; it is something between art and life. Unlike painting and literature, cinema both gives to life and takes from it. The movie is the most powerful medium of this generation. 'Behind the Lens' is a friendly meeting place for all who are interested in movies, where they can share their views with other movie buffs, and also learn of the many exciting pieces of new information which surface from time to time. The club also encourages budding directors, amateur photographers and wannabe actors.



The Music Club

Berthold Auerbach famously said, "Music washes away from the soul the dust of everyday life." This is the thought our music club is based upon. With some people who wash their everyday stress and some music fanatics who walk on the divine path of music, our music club produces a variety of talents. "Music is the easiest way to talk with god," and we are always here to accompany you on this journey; and remember, a journey of a million miles starts with a single step.

Infero - The Programming & Logical Reasoning Club

Henry Ford had observed, "Most people spend more time and energy going around problems than in trying to solve them." Thus said, it is not very hard to bump into a problem anytime any day, as if the problems already here were any less. But at IITH, we are a bunch of fellows who take care of everyone's problems in our own nice geeky way. We think logically, we talk reasonably but well, we are too clumsy and lazy to act, our programs do it instead. Infero is a lively example of how computer science can revolutionize the art of problem solving for one and all.



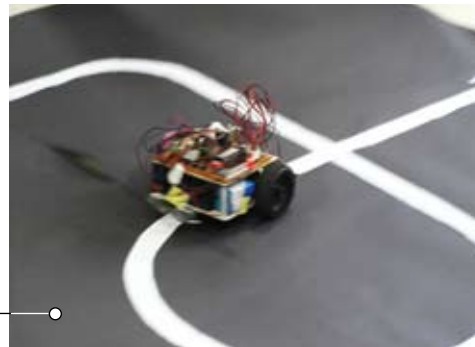


The Quiz Club

The Quiz Club is one of the four clubs under the Literary Council. It organizes quizzes of almost all genres, viz., General, Sports, Political and Geography. It also organizes literary events and challenges like Spell Bee, Guess Who, etc. The club's activities attract very good participation.

Robotics - The Robot Club

One of the earliest clubs started in IITH, the Robotics Club has, through the years, blossomed into a fully functional club with the simple goal of exposing students to the wondrous field of robotics. Armed with the support of the Institute, the knowledge pool and bubbling enthusiasm of its members, the club provides the opportunity and materials to harness their creativity and ingenuity.



The Speakers' Club

The Speakers' Club is a part of the Literary Council of IITH. Started in January 2011, it seeks to enhance the speaking skills of students. It holds fortnightly speaking sessions, for both its members and others who may be interested. The topics for discussion are intimated to the participants in advance.

First 'Open Day'

On 17 September 2011, IIT Hyderabad organized its very first 'Open Day'. It was dedicated to various laboratory tours, showcasing various experiments and activities which IITH students plan and execute in the laboratories. All the state-of-the-art science and engineering laboratories were opened throughout the day for visitors, especially students from nearby schools, to motivate and inspire them with the future prospects of science and engineering education.





> FRACTIONAL CREDIT COURSES

Course No.	Title	Course Instructor's Name
Aug-Dec 2011		
FC I010	Cyber Physical Systems	Dr Rajalakshmi (IITH)
FC I020	Mobile Application Development	Ramesh Srinivasaraghavan (Adobe)/ Dr Ravi (IITH)
FC I030	Trends in Storage Systems	Dr Preetam Patil (NetApp) / Dr. Ravi (IITH)
FC I040	Data Management & Computing on the Cloud	Dr S Seshadri /Dr Ravi (IIT H)
Jan-May 2012		
FC I050	Introduction to Finance & Economy	Dr Sri Nagesh
FC I060	Introduction to Sales & Marketing	Dr JP Sahu
FC I070	Memory Architecture and Challenges in Newer Technologies	Dr Abhesh Kumar Tripathi (ARM Embedded Technologies, Bangalore)
FC I080	Smart Communication	Maddu Chadda
FC I090	Streaming Data & Pattern Analysis	Mr Lakshmi Narayana (HP)
FC I100	Multimedia over Wireless	Dr Bheemarjuna Reddy, Dr Soumya Jana & Dr Ravi (IITH)
FC I110	Empowering 3 Billion	Dr APJ Abdul Kalam
CH 6360	Concept of Bio-Refinery (only MTech& PhD)	Dr Sunil K Maity (IITH)

> FUNDED RESEARCH PROJECTS 2011-12

Production of Green Diesel from Non-Edible Oils Using Supported Nano Metal Catalysts

Investigator: Sunil Kumar Maity

Sponsor: Department of Science and Technology, New Delhi.

Sanctioned Amount: Rs 54.4 Lakhs

Development of Novel Hydro-cyclone for Beneficiation of Iron Ore Slimes

Investigator: Narasimha Mangadoddy

Sponsor: SERC - Department of Science and Technology, Gol

Sanctioned Amount: Rs 24 Lakhs

Design and Modeling of Bigger Size Hydro Cyclone to Deliver Smaller Cut Point

Investigator: Narasimha Mangadoddy

Sponsor: TEGA Industries, Kolkata

Sanctioned Amount: Rs 10.8 Lakhs

Modeling of Arteries with Atherosclerotic Plaque: In-vivo Prediction of Plaque Growth and Rupture

Investigator: Anand Mohan

Sponsor: Department of Biotechnology, Gol (Approved by Bioengineering Task Force)

Sanctioned Amount: Rs 39.13 Lakhs

Computational Simulation of Blood Flow in Stenosed Geometry: Insights into the Progress of Atherosclerosis

Investigator: Anand Mohan

Sponsor: Department of Science and Technology, Gol (Fast Track Scheme for Young Scientists)

Sanctioned Amount: Rs 27.6 Lakhs

Modeling Accelerated Aging and Degradation of Solid-Oxide Fuel Cells (MAAD-SOFC)

Investigator: Vinod Janardhanan

Sponsor: Department of Science and Technology, New Delhi

Sanctioned Amount: Rs 23.7 Lakhs

Development of Quasi Solid-state Photoelectrochemical Solar Cells with Novel Nanostructured Composite Photoanode

Investigator: M Deepa

Sponsor: Department of Science and Technology, Gol

Sanctioned Amount: Rs 38.7 Lakhs

Development of New Synthetic Methods for the Synthesis of Novel Heterocyclic Compounds via Cyclo Addition Reactions

Investigator: DS Sharada

Sponsor: Department of Science and Technology

Sanctioned Amount: Rs 21.3 Lakhs

Novel Pincer Ligands in Lanthanide Chemistry when the donor atoms play the key role in the catalysis

Investigator: Tarun K Panda

Sponsor: Council for Scientific and Industrial Research (CSIR)

Sanctioned Amount: Rs 11 Lakhs

Functionalized N-Heterocyclic Carbene (NHC) Supported Late Transition Metal Catalysts for Hydrosilylation Reactions

Investigator: G Prabusankar

Sponsor: Council for Scientific and Industrial Research (CSIR)

Sanctioned Amount: Rs 19 Lakhs

Development of Epoxy Nano Composites for Aerospace and Armor Applications

Investigator: Ch Subramanyam

Sponsor: DRDO

Sanctioned Amount: Rs 43 Lakhs

Formal Total Synthesis of Cytotoxic Marine Ascidian Alkaloid Haoumine A

Investigator: G Satyanarayana

Sponsor: Department of Science and Technology, Gol

Sanctioned Amount: Rs 20 Lakhs

Formal Syntheses of (±)-Rhazinilam, (±)-Rhazinal and Syntheses of B-ring (±)-Norrhazinilam, (±)-Norrhazinal, (±)-Bisnorrhazinilam and (±)-Bisnorrhazinal

Investigator: G Satyanarayana

Sponsor: Council for Scientific and Industrial Research (CSIR)

Sanctioned Amount: Rs 21.9 Lakhs

Effect of Static Recovery on Yielding and Work-hardening Behavior of Bulk Nanostructured Al-Mg-Sc / Zr Alloys

Investigator: Pinaki Prasad Bhattacharjee

Sponsor: DST-JSPS

Sanctioned Amount: Rs 3.8 Lakhs



...FUNDED RESEARCH PROJECTS 2011-12

Continuous Recrystallization and Evolution of Mechanical Properties in Bulk Ultrafine Grained Aluminum Alloys

Investigator: Pinaki Prasad Bhattacharjee
Sponsor: DST
Sanctioned Amount: Rs 24 Lakhs

Combinatorial Design of Nano Structured Novel Alloys through Pulsed Electro Deposition

Investigator: Suhash Ranjan Dey
Sponsor: Council for Scientific and Industrial Research (CSIR)
Sanctioned Amount: Rs 7.5 Lakhs

Algebraic Study of Fuzzy Implication Operators

Investigator: Balasubramaniam Jayaram
Sponsor: Department of Science and Technology, Gol
Sanctioned Amount: Rs 3.4 Lakhs

Compressed Sensing for the Reconstruction, Analysis and Classification of Tomographic Images

Investigator: CS Sastry
Sponsor: Department of Science and Technology, Gol
Sanctioned Amount: Rs 0.75 Lakhs

Sound Quality Study of Automotive Horn

Investigator: B Venkatesham
Sponsor: Hyundai Motor India Engineering Pvt. Ltd.
Sanctioned Amount: Rs 6.6 Lakhs

Development of Quadruped Robot with Flexible Body

Investigator: R Prasanth Kumar
Sponsor: Defence Research and Development Organization (DRDO)
Sanctioned Amount: Rs 24 Lakhs

Computational Study and Experimental Validation of Critical Components in Automotive Refueling System

Investigator: Raja Banerjee
Sponsor: Mercedes-Benz Research & Development India Pvt. Ltd
Sanctioned Amount: Rs 36 Lakhs

Evaluation of Properties of Zircalloy using Digital Image Correlation Technique

Investigator: M Ramji
Sponsor: Atomic Energy Regulatory Board (AERB)
Sanctioned Amount: Rs 15.09 Lakhs

Critical Speed Analysis of FAN using ANSYS (Consultancy Project)

Investigator: M Ramji
Sponsor: CB Doctor Ventilators Pvt. Ltd
Sanctioned Amount: Rs 1.1 Lakhs

Exploring Structural Materials from First Principles Electronic Structure Calculations

Investigator: V Kanchana
Sponsor: Department of Science and Technology, Gol
Sanctioned Amount: Rs 18.48 Lakhs

Investigation of High Speed Etchants for Silicon Wet Anisotropic Etching for Applications in MEMS

Investigators: Prem Pal
Sponsor: Department of Science and Technology, Gol
Sanctioned Amount: Rs 48 Lakhs

Flavour Physics in the Era of the Super-B Factories

Investigator: Anjan Kumar Giri
Sponsor: BRNS
Sanctioned Amount: Rs 18 Lakhs

Collaboration by Indian Physicists on Neutrino Experiments

Investigator: Anjan Kumar Giri
Sponsor: Department of Science and Technology, Gol
Sanctioned Amount: Rs 84 Lakhs

Mobile Sensor Network Technologies

Investigator: P Rajalakshmi
Sponsor: KDDI, Japan
Sanctioned Amount: USD 25000

Design and Fabrication of MEMS Phase Shifter

Investigator: Shiv Govind Singh
Sponsor: RCI
Sanctioned Amount: Rs 10 Lakhs

Multi-Scale Modeling of Damage in Materials

Investigator: Amirtham Rajgopal
Sponsor: Department of Science and Technology, Gol (Fast Track)
Sanctioned Amount: Rs 8.38 Lakhs

Isogeometric Mesh-Free Analysis of Composite Plates

Investigator: Amirtham Rajgopal
Sponsor: AR & DB
Sanctioned Amount: Rs 6.42 Lakhs

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World: A Global Source book and History, Indira J, Kranthijyoti, Appeasing Radhika, Muddupalani, Tiffany K Wane (ed), ABC-CUO, California, 2011

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Oates's: The Rise of Life on Earth, Srirupa Chatterjee G Neelakantan, Notes on Contemporary Literature, 2012, 42, pp 8-10.

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An Ultrasonic Procedure for Continuous Monitoring of Capillary Porosity and Elastic Properties in

Hydrating Cement Paste, Wang X, Subramaniam KV, Journal of Cement and Concrete Composites, 2011, 33(3), pp 389-401.

Comprehensive Life Cycle Cost Analysis for the Selection of Stabilization Alternative for Better Performance of Low Volume Roads,

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Chakkrit Sirivitmaitrie, Anand J Puppala, Sireesh Saride, Laureano R Hoyos, Transportation Research Record: Journal of Transportation, 2011, TRB Issue – 2204, pp 140-147

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> PUBLICATIONS IN INTERNATIONAL CONFERENCES

Renu John, and Stephen A Boppart - Magnetomotive Molecular Nanoprobes for Biomedical Imaging Applications – 3-7 December 2011 - XXXVI OSI Symposium on Frontiers in Optics and Photonics - IIT Delhi.

Md Azahar Ali, S Sarivastava, Pratima R Solanki, V V Aggrawal, Renu John and BD Malhotra – MWCNT Doped Nanostructured NiO for Total Cholesterol Detection Based on Microfluidic Platform - 7-10 December 2011 - India Japan Biomolecular Electronics and Organic Nanotechnology for Environment Preservation, IJWBME 2011 - Himeji, Japan.

Frederick South, Marina Marjanovic, Renu John, Steven G Adie, Eric J Chaney, Krishnarao V Tangella, Partha Ray, John Brockenbrough, Guillermo L. Monroy, Jessica C Hsu

and Stephen A. Boppart - Assessment of the Progression of Lymph Node Metastases using Three-dimensional Optical Coherence Tomography – 31 March-April 2012 - American Association for Cancer Research (AACR) Annual Meet - Chicago, Illinois.

Vasilica Crecea, Steven Adie, Amy Oldenburg, Renu John and Stephen Boppart - Optical Measurements of Mechanical Resonances in Biological Tissues via Magnetic Nanoparticle – 21-25 March 2012 - American Physical Society (APS) Meeting - Texas, USA.

Renu John - Molecular Optical Imaging – 21-22 July 2011 - National Seminar on Trends in Physical Sciences, TRIPS Organized by DST, CSIR KSCSTE – Kalyad, Kerala.



...PUBLICATIONS IN INTERNATIONAL CONFERENCES

Thenmalarchelvi Rathinavelan, Wonpil Im and Roberto N. De Guzman - Mechanism of Virulence Proteins Transport in Gram-negative Bacteria: Computational and NMR investigations - 19-20 January 2012 - Annual Meeting of the Indian Biophysical Society - Chennai, India.

M Narasimha, AN Mainza, P Holtham, M Brennan and MS Powell - Improved Communication Circuit Simulations Using New Set of Equations of a Hydrocyclone Classifier - 17-20 April 2012 - Comminution-2012 - Cape Town, South Africa.

Chandra S Sharma, Ashutosh Sharma - Wettability Enhancement - 16-21 October 2011 - AIChE Annual Meeting - Minneapolis, USA.

SP Vanka, AF Shinn, KC Sahu - Computational Fluid Dynamics Using Graphics Processing Units: Challenges and Opportunities - 11-17 November 2011 - Proceedings of the ASME International Mechanical Engineering Congress and Exposition - Denver, Colorado, USA.

PP Bhattarjee, N Tsuji - Effect of Ultrahigh Straining on the evaluation of Cube Texture $\{100\}\langle 100 \rangle$ in High Purity Nickel - 12-17 December 2011 - 16th International Conference on Textures of Materials (ICOTOM 16) - IIT-Mumbai, India.

Nabuihro Tsuji, Yoshihiro Takatsuji, Yoji Miyajima, Pinaki Prasad Bhattacharjee, Daisuke Terada - Stability at Cube Oriented Grains during Cold-Rolling of Highly Cube-Oriented Polycrystalline Nickel - 12-17 December 2011 - 16th International Conference on Textures of Materials (ICOTOM 16) - IIT Mumbai, India.

B Jayaram, M Baczynski and R Mesiar - R-implications and the Exchange Principle: A Complete Characterization 18-22 July 2011 - 7th Conference of the European Society for Fuzzy Logic and Technology, EUSFLAT 2011 - Aix-les-Bains, France.

B Jayamm, Kakarla VVDL Narayana, and V Vetrivel, Fuzzy Inference System based Contrast Enhancement, 7th Conference of the European Society for Fuzzy Logic and Technology, EUSFLAT 2011, 18-22 July 2011, Aix-les-Bains, France.

B. Jayaram - T-subnorms with Strong Associated Negation: Some Properties - 11-15 July 2011 - 6th International Summer School on Aggregation Operators, AGOP 2011 - Benevento, Italy.

CS Sastry and S Singh - Reconstruction from Divergent Ray Projections - 23-25 Jan 2012 - SPIE - Burlingame, San Francisco, USA.

Yi Chen-Chen, CS Sastry, V Patel, J Philips, R Chellappa - Rotation Invariant Simultaneous Clustering and Dictionary Learning - 24-31 March 2012 - ICASSP - Kyoto, Japan.

Sathish Kumar Garala, Sanskar Godha and Ashok Kumar Pandey - Effect of Chirality on the Resonance Frequency of a Carbon Nanotube - 8-9 December 2011 - Bangalore Nano, Bangalore.

CK Nirala and R Prasanth Kumar - A New Semi-Active Suspension System Based on Jerk Driven Damper (JDD) Control - 15-16 December 2011 - International Conference on Computational Methods in Manufacturing - IIT Guwahati.

Raja Banerjee and R Gopinath - CFD Analysis to Study Evaporation of a Single Ethanol / Iso-Octane Binary Mixture Droplet, ASME - 24-29 July 2011 - JSME-KSME Joint Fluids Engineering Conference 2011 (AJK-2011-FED) - Hamamatsu, Japan.

Vikrant V Veerkar and M. Ramji - Experimental and Numerical Evaluation of Stress Intensity Factors for Interacting Parallel Edge Cracked Panel - 4-6 January 2012 - Fourth International Conference on Structural Stability and Dynamics (ICSSD-12) - MNIT, Jaipur, India.

Rahul N Pai and M Ramji - Experimental and Numerical Evaluation of SIF for a Bimaterial Interface Crack Under Pure Bending - 4-6 January 2012 - Fourth International Conference on Structural stability and Dynamics (ICSSD-12) - MNIT, Jaipur, India.

M Kashfuddoja and M Ramji, Estimation of Stress Intensity Factor of Cracked Panel Repaired with Unsymmetrical Patch Using Combined FEA and GA Approach - 4-6 January 2012 - Fourth International Conference on Structural Stability and Dynamics (ICSSD-12) - MNIT, Jaipur, India.

RGR Prasath and M Ramji - Study of Matrix Crack and Inclusion Interactions Using Digital Photoelasticity and FEA - 4-6 January 2012 - Fourth International Conference on Structural Stability and Dynamics (ICSSD-12) - MNIT, Jaipur, India.

R Srilakshmi and M Ramji - Fatigue Crack Growth Estimation of Three Dimensional Cracked Panel Repaired with Single and Double Sided Patch - 4-6 January 2012 - Fourth International Conference on Structural Stability and Dynamics (ICSSD-12) - MNIT, Jaipur, India.

R Srilakshmi and M Ramji - Composite Repair for Mixed Mode Cracks Using Unbalanced Laminates - 15-16 December 2012 - International Conference on Computational Methods in Manufacturing (ICMM-2011) - IIT Guwahati, India.

M Bhanu Prakash and M Ramji - Optimum Patch Design in Composite Repair for Mixed-mode Loading - 15-16 December 2012 - International Conference on Computational Methods in Manufacturing (ICMM-2011), - IIT Guwahati, India.

Sumeet Soni, V Eswaran, P Munshi, S Sengupta, P K Guchhait, Numerical Simulation of Existing Coolant Water Flow in a Pool Type Research Reactor, 13-17 June 2010, American Nuclear Society Meeting, San Diego.

Sumeet Soni, V. Eswaran, P Munshi, S Manna, SB Roy, Unsteady State Heat Transfer in a Magnesium-Thermic Reduction Reactor for Uranium Production, June 13-17 2010, American Nuclear Society Meeting, San Diego.

Prem Pal, Kazuo Sato and H Hida - MEMS Components with Perfectly Protected Edges and Corners in Si{110} Wafers - 6-9 November 2011 - IEEE International Symposium on MHS & Micro-Nano G-COE, Nagoya, Japan.

N Pattabhi Ramaiah and C Krishna Mohan - De-noising Slap Fingerprint Images for Accurate Slap Fingerprint Segmentation, in Proc - December 2011 - IEEE International Conference on Machine Learning and Applications (ICMLA) - Honolulu, Hawaii, USA.

N Pattabhi Ramaiah and C Krishna Mohan, 'ROI-based Tissue Type Extraction and Volume Estimation in 3D Brain Anatomy', in Proc - November 2011 - IEEE International Conference on Image Information Processing (ICIIP) - Simla, Himachal Pradesh, India.

N Pattabhi Ramaiah and C Krishna Mohan - 'De-duplication of Photograph Images Using Histogram Refinement', in Proc - September 2011 - IEEE International Conference on Recent Advances in Intelligent Computational Systems (ICRAICS), Trivandrum, Kerala, India.

M Srinivas and C Krishna Mohan - 'Efficient clustering approach using incremental and hierarchical clustering methods', in Proc - July 2010 - IEEE International Joint Conference on Neural Networks (IJCNN) - Barcelona, Spain

Bharat Adsul, Ch. Sobhan Babu, Jugal Garg, Ruta Mehta, Milind A. Sohoni, A Simplex-Like Algorithm for Fisher Markets, SAGT 2010.

Bharat Adsul, Ch. Sobhan Babu, Jugal Garg, Ruta Mehta, Milind A. Sohoni, Nash Equilibria in Fisher Market, SAGT 2010

Domingos Dellamonica, Subrahmanyam Kalyanasundaram, Daniel Martin, Vojtech Rodl, Asaf Shapira - A Deterministic Algorithm for the Frieze-Kannan Regularity Lemma - August 2011 - 15th International Workshop on Randomization and Computation (RANDOM'2011).

Subrahmanyam Kalyanasundaram, Richard Lipton, Kenneth Regan, Farbod Shokrieh - Improved Simulation of Nondeterministic Turing Machines - August 2010 - 35th International Symposium on Mathematical Foundations of Computer Science (MFCS 2010).

Mostafa Ammar, Deeparnab Chakrabarty, Atish Das Sarma, Subrahmanyam Kalyanasundaram, Richard Lipton - Algorithms for Message Ferrying on Mobile Ad hoc Networks - December 2009 - IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2009.

BS Manoj, T Bheemarjuna Reddy, and Ramesh R. Rao, - On the Impact of Physical-Cyber world Interactions during Unexpected Events - December 2011 - in Proc. of International Conference on Wireless Technologies for Humanitarian Relief (ACWR2011),

BS Manoj, Bheemariuna Reddy Tamma, Paul Blair and Ramesh R Rao - On Non-invasive Network Measurement for Emergency Response Wireless Mesh Networks - August 2011 - in Proc of International Conference on Applications of Digital Information and Web Technologies (ICADIWT),

Shaik Qadeer, Mohammed Zafar Ali Khan and Syed Abdul Sattar - On Fixed Point Error Analysis of FFT Algorithms, - September 2011 - Proc. of CEMC CSIT IDES - Kerala, India.



...PUBLICATIONS IN INTERNATIONAL CONFERENCES

Shaik Qadeer and Mohammed Zafar ali Khan - Fixed Point Error Analysis of Radix-4 and Radix-8 FFT Algorithms - 11, December 2011 - Proc. of IEEE Conference on IMPACT Aligarh India.

Mohammed Zafar Ali Khan - On Achieving Exponential Diversity with Partial Channel State Information in MIMO Fading Channels - 4-8 July 2011 - IEEE IWCMC 2011, Istanbul, Turkey.

Mohammed Zafar Ali Khan - Optimal Space-Time Power Allocation in MIMO Rician Fading Channels with Ideal Channel State Information - 5-9 June 2011 - ICC 2011 - Kyoto, Japan.

N Kalpana, Mohammed Zafar Ali Khan, UB Desai - Optimal Power Allocation for Secondary Users in CR networks - 18-21 December 2011 - IEEE ANTS 2011 - Bangalore, India.

Detroja KP, Gudi RD, Patwardhan SC - Data Reduction and Fault Diagnosis Using Principle of Distributional Equivalence - 23-26 May 2011 - International Symposium on Advanced Control of Industrial Processes (ADCONIP-2011) - Zhejiang, China.

Raja Vara Prasad Y, Bharathi, Alok Kumar, P Rajalakshmi, UB Desai - WSN Based Power Monitoring in Smart Grids - December 2011 - Seventh IEEE International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP) - Adelaide, Australia.

Lamling Venus Shum, P Rajalakshmi, Ayo Afonja, Graeme McPhillips, Russell Binion, Lawrence Cheng, Stephen Hailes - On the Development of a Sensor Module for Real-time Pollution Monitoring - June 2011 - International Conference on Information Science and Applications (ICISA) - South Korea

Saambavi, P Rajalakshmi - Hard Software Codesign for AES in FPGA - August - Accepted for publication in ICACCI 2012 - Chennai, India

GV Chaitanya, P Rajalakshmi, UB Desai - Real Time Hardware Implementable Spectrum Sensor for Cognitive Radio Applications - July 2012 - Accepted for publication in ICACCI 2012, Bangalore, India

AR Aravinth Kumar, Ashudeb Dutta and Shivgovind Singh - A 1.5-7.5GHz Low Power Low Noise Amplifier (LNA) Design Using Subthreshold Technique for Wireless Sensor Network (WSN) Application - May 2012 - IEEE International Symposium on Circuits and Systems - South Korea.

Saddi Pradeep Reddy, Ashudeb Dutta and Shivgovind Singh - A Reconfigurable Aperture Coupled Microstrip Patch Antenna on Silicon - May 2012 - HSI2012 - China.

AR Aravinth Kumar, A Dutta, SG Singh - A 1.5-7.5GHz Low Power Low Noise Amplifier (LNA) Design Using Subthreshold Technique for Wireless Sensor Network (WSN) Application - 20-23 May 2012 - IEEE International Symposium on Circuits & Systems - Seoul, Korea

Anesh K Sharma, Ashu K Gautam, DVK Sastry, SG Singh, - 4-6 November 2011 - Design & Modeling of 6-Bit Low Loss Ka Band Distributed MEMS Phase Shifter on GaAs, ICMENS - Kuala Lumpur, Malaysia.

Anesh K Sharma, Ashu K Gautam, DVK Sastry, SG Singh - Development of a Low-force Broad Band RF MEMS Switch on Quartz for Reconfigurable Antennas - 2011 - International Conference on Microelectronics ICMi2011, - Hammamet, Tunisia

Chittem, M. - Reasons for and for Not Disclosing, Illness Perceptions, and Psychological Adjustment in Indian Caregivers of Cancer Patients - 24 February 2012 - American Psycho-oncology Society 9th Annual Conference - Miami, Florida, USA

Subramaniam KVL and Carloni C - Application of Fracture Mechanics to Debonding of FRP from RC Members - 18-22 March 2012 - ACI Semi Annual Meeting organized by American Concrete Institute - Dallas, TX, USA

Mahendra Kumar Pal and Amirtham Rajagopal - Multiscale Failure modeling of Composite Laminates Using GFEM - 26-30 March 2012 - GAMM Conference - Germany

> HONORS AND AWARDS

Sudhakara Reddy Yenumala received **Ambuja's Young Researcher's Awards for 2011** for guiding thesis titled 'Reforming of Vegetable Oil for the Production of Synthesis Gas; Thermodynamic Analysis and Flow Sheet Design'.

Narasimha Mangadoddy received **Excellence in Teaching Award** at IITH for 2011.

Ch Subrahmanyam received **Royal Society International Travel Grant** to visit the University of Manchester, UK.

Faiz Ahmed Khan has been awarded **Fellow at the National Academy of Sciences (2011) and Indian Academy of Sciences (2012)**

Remya Narayanan won the **Best Poster Award** in the Sciences, on IIST Research Scholar's Day held at IIST Thiruvananthapuram, on 16-17 December 2011.

Tarun K Panda has been invited to be a **Visiting Researcher** in Japan (May-July 2012).

Subhash Ranjan Dey has been invited as '**Alexander von Humboldt Guest Scientist**' at Institute for Structure Physics, Technical University Dresden, Germany, and also an **Invited Professor** at University Paul-Verlaine Metz, France.

Chandra S. Sharma received the **INAE Innovative Student's Project Award 2011** for his Ph.D. thesis.

V Kanchana Received the **Young Scientist Award 2011** from Andhra Pradesh Academy of Sciences.

Saket Asthana was invited for 3 months (May-July 2011) to visit Functional Nanomaterials and Nanodevices Group, at ISIR, Osaka University.

Swetarekha Ram received **Best Poster Award** at National Conference Organised by Advanced Materials Research Group of Computational Nano Science and Technology Lab (NCMAT-2012), ABV-IITM, Gwalior (M.P.) India.

KP Prabheesh was selected as **Young Economist** to participate in the 4th Nobel Laureate Meeting in Economic Sciences, held in Germany on 23-27 August 2011.

Kolluru VL Subarhmanyam, Life Member, Indian Concrete Institute.

S Sireesh has been nominated for **Best Paper Award** for his paper titled 'Assessment of Recycled / Secondary Materials as Pavement Bases', ICE Journals, Thomas Telford, 2011 and ASCE Middle Brook Best Paper Award for the paper titled 'Experimental and Modeling Studies of Permanent Strains of Subgrade Soils', published in ASCE Journal of Geotechnical and Geoenvironmental Engineering, 2011.

Mr Pankaj Sahlot and Mr Sajin George Sajan received First Prize in Poster Presentation **Friction Stir Welding** at 'Design and Development of Materials for Advanced Technologies' (DMAT-2012) from 23-24 January 2012 at IT Banaras Hindu University.

Mr Sreekanth Mandati received the **Best Poster Presentation Prize** at 3rd EICOON SCHOOL on 'Science and Technology of Renewable and Clean Energy Sources' held in Kolkata on 30 April - 1 May 2012.

> INVITED / CONTRIBUTED TALKS

Molecular Optical Imaging, National Seminar on Trends in Physical Sciences, 21-22 July 2011 by Renu John (Kalady, Kerala) at TRIPS organised by DST, CSIR KSCSTE.

Simulating gas-solid flow patterns in an internally circulating fluidized bed with draft tube, 20-22 October 2011 by Ravi Gujjula, Narasimha M (Udaipur, India) at XII International Conference on Mineral Processing Technology.

Two phase CFD Simulation of Column Flotation, 20-22 October 2011 by Balraiu Vadlakonda, Narasimha M (Udaipur, India) at XII International Conference on Mineral Processing Technology.

New Model Equations for Hydrocyclone Cut-size and Sharpness of Separation, 20-22 October 2011 by M Narasimha, Mainza AN, Holtham PN and Brennan MS (Udaipur, India) at XII International Conference on Mineral Processing Technology.

Role of Hydrocyclones in Treating Iron Ore Slimes, 22-24 January 2012 by M Narasimha (Pune, India) at a Workshop on Iron Ore Smiles Beneficiation.



...INVITED / CONTRIBUTED TALKS

Electraspun Functionalized Polymer and Carbon Nanofibers, 20-23 January 2012 by Chandra S Sharma, Ashutosh Sharma (Hyderabad) at an International Conference on Nano Science and Technology (ICONSAT-2012).

Synthesis, Fabrication and Application of Multiscale Carbon Micro- and Nano- Structures, 13-15 February 2012 by Chandra S Sharma, GC Jain (Thapar University, Patiala) at 23rd Annual General Meeting of Materials Research Society of India (MRSI).

Electraspun Polymer and Carbon Nanofibers: Fabrication and Functionalization, 15-16 February 2012 by Chandra S Sharma, Ashutosh Sharma (IIT Kanpur) at Indo-US Meeting on Fabricionics.

Convective and Absolute Instabilities in Pressure-driven Two-layer Channel Flow, 20-22 January 2012, by KC Sahu (IIT Bombay, India) at Advanced Instability Methods (AIM) for Fluid Mechanics and Combustion.

Multi-scale Modeling of Solid-Oxide Fuel Cells, 8-10 November 2011, by Vinod M Janardhanan (Fukuoka, Japan) at 7th International Conference on Clean Coal Technology and Fuel Cells.

Rare Earth Metal Complexes Supported by Non-Cyclophen-tadienyl Ligands Synthesis, 11-12 November 2011 by TK Panda (Osaka University, Japan) at an International Symposium on Organometallic Chemistry.

Chemical Technologies in Drug Discovery, 23-24 April 2011, by Prof FA Khan (Hyderabad) at Joint Symposium by Merck & Co Inc, USA and ILS Hyderabad.

Effect of Starting Grain Size on the Evolution of Microstructure and Texture of High Purity Nickel During Severe Plastic Deformation and Subsequent Annealing, 30-31 January 2012 by PP Bhattacharjee (IISC Bangalore, India) at UGC-NRC M Symposium on Mechanical Behaviour of Materials.

Top-down Processing of Bulk Nanostructured Materials: A Case Study with High Purity Nickel, 4-7 January 2012 by PP Bhattacharjee (Sreenidhi Institute of Science and Technology, Hyderabad) at an International Conference on Nanotechnology & Functional Materials.

Effect of Initial Grain Size and Strain Path Change on the Evolution of Microstructure and Texture During Heavy Cold Rolling of Pure Nickel, 23-24 January 2012, by M Joshi, V Chaudhuri, M Zaid, PP Bhattacharjee, (IT-BHU, Varanasi) at 25th National Convention of Metallurgical and Materials Engineers (IEI) and National Seminar on

Design and Development of Materials for Advanced Technologies (DMAT 2012).

Characteristics of Shear Bands in Sub-microcrystalline Ni, 14-16 November 2011, by Suhash Ranjan Dey (Hyderabad, India) at National Metallurgical Day-Annual Technical Meeting.

Micro-Shear Bands Formation During Cyclic Deformation of Additive-free Submicrocrystalline Nickel, 12-17 December 2011 by Suhash Ranjan Dey (Mumbai, India) at the 16th International Conference on the Textures of Materials (ICOTOM 16).

Overview on: Nanolayered MAX Phase, New Class of Engineering Material, 23-24 March 2012, by BB Panigrahi, (Ghaziabad, Delhi) at a National Conference on Recent Trends in Design, Manufacturing and Thermal Sciences.

Prediction of Diffusion Coefficients of Ti₃AlC₂ and Cr₂AlC Ceramics Using Sintering Models, 2-4 February 2012 by BB Panigrahi at an International Conference on Power Metallurgy.

Templating Techniques: A Bioinspired Approach Towards Synthesis of Nano-structured Functional Materials, National Level Seminar on New Trends in Chemical Research and Scientific Paper Writing, 2-4 February 2012 by Dr Atul Suresh Deshpande (University of Pune) at National Level Seminar on New Trends in Chemical Research and Scientific Paper Writing.

Functional Oxide Thin Films, 13-16 Nov 2011 by Ranjith Ramadurai (Hyderabad) at 49th Metallurgical Day and 65th Annual Technical Meeting of Indian Institute of Metals.

Influence of Silicon Surface Modification on Valence Band Offset of High-k Dielectric Layers, 15-17 March 2012 by Raniith Ramadurai at an International Conference on Thin Films and Applications (ICTFA 2012).

Fuzzy Inference Systems: Types, Features and Issues, IEEE Computational Intelligence Society Winter School, 26-27 December 2011 by B. Jayaram Bhubaneswar (India) at IEEE Computational Intelligence Society Winter School.

Optical Tuning of the Dynamic Characteristics of a Micromechanical Device, 19-20 January 2012, by Ashok Kumar Pandey, Stav Zaitsev and Eyal Buks (India) at CSIR-CMERI.

Coupled Thennomechanical Effect in Frequency Tuning of MEMS Resonators, 1-4 March 2012, by Ashok Kumar Pandey and Eyal Buks (IIT Delhi) at an Indo-French Symposium on Sensors and Technologies and Systems.

Fenni Surface Change Under Pressure: A Density Functional Theory, 27 February 2012 by V Kanchana (Gwalior, M.P India) at a National Conference organised by Advanced Materials Research Group of Computational Nano Science and Technology Lab, ABV-IIITM.

Secretes of TMAH-based Silicon Micromachining, 1-2 March 2012 by Prem Pal (Nagoya, Japan) at 4th Nagoya University, Okmetic MEMS Seminar 'MEMS' for Personal Life.

DRIE vs Wet Anisotropic Etching in MEMS, 19-20 January 2012 by Prem Pal (Durgapur, India) at an International Conference on Microactuators and Micromechanisms (MAMM 2012).

FIG (Fast, Intelligent and Green): Frontiers in Communication, 29-30 November 2011 by Mohammed Zafar Ali Khan, (Hyderabad India) at a Plenary at ICITEC 2011.

Achieving 'Wire-Like' Performance on A Wireless Channel, 11 February 2011 by Mohammed Zafar Ali Khan at 2011 Edison Memorial Lecture.

Stability Analysis and Control of Renewable Driven Islanded and Grid Connected Microgrids, 15-17 December 2011 by Prashant Patel and Vaskar Sarkar (IISC Bangalore) at IISC Centenary Conference at the Department of EE.

Wireless Air Quality Monitoring Systems - Design and Challenges, September 2011 by P Raialakshmi, (Hyderabad) at an Indo-US Workshop on Air Quality and Climate Changes.

Internal Assets in Resilience among Indian Adolescents, 10-11 March 2012, by Deb, A & Arora M at 2nd International Conference on Health, Wellness and Society.

Ddo Public Investment and Fdl Crowd out or Crowd in Private Domestic Investment in India?, 16-17 December 2011 by Badri Narayan Rath & Debiprasad Bal (IBS Hyderabad) at 3rd International Conference on Applied Econometrics.

Combating Crime in Joyce Carol Oates's Rape: A Love Story, 17-18 June 2011 by Srirupa Chatterjee, (United Kingdom) at States of Crime: The State in Crime Fiction.

Self-Affirmation Through Pain in Joyce Carol Oates's Man crazy, Paranoia and Pain: Embodied in Psychology, Literature, and Bioscience, 2-4 April 2012 by Srirupa Chatterjee (United Kingdom).

Lost in Translation? An Ethnographic Study of The Makers and Consumers of Hindi Soap-Operas, Changing Face of the Indian Media, 21-22 March 2012 by Haripriya Narasimhan (Hyderabad, India)

Cementing the Future: New Generation Eco-Friendly Materials, 2-3 September 2011 by Kolluru VL Subramaniam, (IIT Hyderabad, Hyderabad) at 6th Symposium on National Frontiers in Engineering.

Condition Assessment and Rehabilitation of Structures, 30 May - 11 June 2011 by Kolluru VL Subramaniam at Staff Development Program on 'Condition Assessment and Retrofitting of Concrete Structures (CARCOS-2K11).

Mutiscale Failure Modeling of Composite Laminates, 22-23 September 2011 by L. Harish and A Raiagopal, (IIT Kanpur) at XVII National Seminar on Aerospace Structures.

Stress Dependent Active Earth Pressures for High Retaining Walls, 15-17 December 2011 by B Umashankar & MR Madhav (Kochi) at an Indian Geotechnical Conference.

Finite Element Modeling of Ground - Structure Interaction Considering Non-linear Response of the Ground, 15-17 December 2011 by F Jancy, A Raiagopal, B Umashankar & MR Madhav (Kochi) at an Indian Geotechnical Conference.

Formal Verification Techniques for Hybrid and Cyber Physical Systems by MV Panduranga Rao, (Acharya Institute of Technology, Bangalore) at a Workshop on Formal Models and Program Verification.

Introduction to Online Algorithms, January 2012 by N Sivadasan, (NIT Surathkal) at a Research Promotion Workshop on Introduction to Graph and Geometric Algorithms.

Data Stream Algorithms and Applications, December 2011 by N Sivadasan (FISAT, Kerala) at a National Conference on Advances in Computer Applications.



> SEMINARS @ IITH

Challenge Lecture Series

Prof M Vidyasagar - Probabilistic Methods in Cancer Biology - 10 August 2011

Prof Ashutosh Sharma - Self-organized Meso-Fabrication and Functionalities in Highly Confined Soft Materials - 21 September 2011

Prof Tribikram Kundu - Ultrasonic Waves for NDE and SHM - Experiment and Modelling - 9 January 2012

Dr Ashish K Lele - From Macromolecular Structure to Polymer Processing: Bridging Length and Time Scales - 1 February 2012

Prof Terence G Langdon - New Developments in the Processing and Properties of Ultrafine-grained Metals - 2 February 2012

Prof Ashok Jhunjhunwala - Smart-grids for India: Can Solar Energy Become Dominant Power Source? - 6 February 2012

Prof N Balakrishnan - Revenge of Silicon - 21 March 2012

Prof Anantha Padmanabhan - Ultra-Strong and Extra-Ductile Materials: A Gift of Nanotechnology - 4 April 2012

Regular Institute / Department Lecture Series

Dr Sudhir R Naik - Biology of Atherosclerosis - 14 March 2012.

Dr Dhananjaya Dendukuri (Achira Labs (CEO) - Microfluidic Technology as a New Frontier for Chemical Engineers: Experiences of a Start-up Company - 19 October 2011.

Prof DP Rao (Former Professor of Chemical Engineering, IITKanpur; Managing Partner, Process Intensification Consultants, Hyderabad) - Undergraduate and Graduate Research on 'Process Intensification' at IITK - 14 December 2011.

Dr Amit Kumar Dutta (NIST (USA)) - Macromolecules at Solid-Liquid Interfaces - 15 February 2012.

Prof Sadhan C Jana (Univ of Akron, OH (USA)) - An Engineer's Perspective of Design of Nanoscale Asperities in Several Template Materials - 23 January 2012

Prof MNV Ravi Kumar (University of Strathclyde, Glasgow, UK) - Role of Delivery Technologies in Innovative Medicines - 16 November 2011.

Dr Amlan Dutta (Corporate R&D Centre of Aditya Birla Group, Mumbai) - Granular Materials: Modeling and Applications - 2 November 2011.

Dr Dhananjaya Dendukuri (Achira Labs Pvt. Ltd) - Microfluidic Technology as a New Frontier for Chemical Engineers: Experiences of a Start-up Company - 19 October 2011.

Applications of Nanomaterials in Health, Energy and Environment: An Indian Perspective, 22 September 2011, Dr Tata N Rao, ARCI Hyderabad!

Some Recent Developments in Instability and Patterning of Thin Polymer Films, 9 September 2011, Dr. Rabibrata Mukherjee, IIT Kharagpur

Phospholipid vesicles and polymer brushes: Applications in drug delivery and tissue engineering, 29 July 2011, Dr Sameer Jadhav, IIT Bombay

Prof Dr RA Fischer, Chair Professor of Inorganic Chemistry II, University of Bochum, Germany, Surface Mounted Metal-Organic Frameworks (SURMOFs), 09 December 2011

Possibilities of Bulk Nanostructured Metals as Future Structural Metals, December 2011, Professor Nobuhiro Tsuii Kyoto University, Japan

New developments in the processing and properties of ultrafine-grained metals, February 2012, Professor TG Langdon University of Southern California, USA

In situ Evaluation of Supersolidus liquid phase sintering phenomena of stainless steel 316L densification and distortion, 12 January 2012, Dr Ravi Bollina (Executive director, BVR Paper Industries PVT. LTD, India)

Nano Oxides: Structures, Defects, and Redox activities in catalyst, 29 December 2011, Prof. Siu-Wan Chan (Prof. Dept. of Appl. Phys. & Appl. Math. Columbia University, USA)

Needs and Utilization of Scanning Electron Microscopy-Electron BackScatter Diffraction technique, 20 December 2011, Dr. Ubhi Singh (Senior EBSD Application Scientist, Oxford Instruments, UK)

Crystallographic Textures in the Study of Advanced Materials, 17 November 2011, Prof. Raniit Kumar Ray (Visiting Scientist, R & D Division, Tata Steel, Jamshedpur)

Materials Chemistry of Sensors, 2 March 2012, Dr T Gnanasekaran, Associate Director, Chemistry group, IGCAR Kalpakkam

Ultrasonic Waves for NDE and SHM - Experiment and Modelling, 9 January 2012, Prof. T. Kundu, Professor, Department of Civil Engineering and Engineering Mechanics, Aerospace and Mechanical Engineering, University of Arizona, Tucson, Arizona 85721, USA

18 April 2011, Prof. Gopal Madabhushi, Reader in Geotechnical engineering, Asst Director (Schofield Centre)

& Fellow (Girton College) , University of Cambridge, Cambridge , U.K 2011.3.11 East Japan Great Earthquake : Disaster and Impact, 19 August 2011, Prof Yozo Fujiino, Professor, University of Tokyo, JAPAN

Recent advances in computational structural mechanics, 27 February 2012, Dr S Nagesh Iyer, Director SERC, Chennai

Ultrasonic waves for NDE and SHM, 9 January 2012, Prof T Kundu, University of Arizona

Smart Materials and Structures, 4 October 2011, Dr S Raia, Head Structural Dynamics Group, NAL Bangalore

> TRAINING AND PLACEMENT CELL

The first major placement season in IIT Hyderabad kicked off last December. It saw a total of 147 students register for placements, including the first B. Tech batch (the class of 2008-12) and the second batch of postgraduate (Masters) students. Fifty companies participated in the process, with students from the discipline of Computer Science and Engineering (CSE) walking away with the most coveted jobs.

Arun Chaitanya, a CSE B. Tech. student, bagged an offer of 35 lakhs per annum from Works Applications, an ERP software firm based in Tokyo. Other globally reputed recruiters of CSE students include Google, Amazon, Microsoft IDC, Deloitte and PayPal. Notable recruiters of Electrical Engineering students were DRDO, Nvidia, Xilinx and HP.

Mechanical Engineering students were mainly recruited by DRDO, ONGC, Bharat Petroleum, Mahindra Satyam and 3DPLM. Other firms like Flipkart, mFino and FuturesFirst also hired students. The average salary of the placed students was pegged at 7.35 lakhs per annum (excluding international offers).

A total of 116 students have been placed so far with a total of 142 offers. With many students looking to apply for PSUs off-campus, the proportion of outgoing students with a job in hand is likely to increase.

Along with the graduating students, third-year B. Tech students also bagged summer internships at prestigious firms like DRDO, Goldman Sachs, Qualcomm, Amazon, Microsoft IDC, Microsoft IT, Deloitte, Altair, BPCL, IBM, Broadcom, CD-adapco, GE and Factset.

The cordial relations that have been established with the above set of companies would surely give an impetus to the following placement seasons.

An efficient and organised Training & Placement Cell (TPC) has ensured smooth running of the placement season. Assisted by a dedicated group of student volunteers and TPC coordinators, the Training and Placement Cell have done their utmost to ensure that students get the best possible offers.



> RESEARCH LABS AT THE INSTITUTE

State-of-the-art research facilities are under development at IIT Hyderabad. Research at the institute focuses on fundamental as well as applied research; researchers trying to address national and global challenges through cutting edge inter-disciplinary and multi-disciplinary research. Following sections illustrates some of the modern equipments which have been installed in this financial year across various departments.

High Performance Computing (HPC) Centre



*HPC is built with 64 nodes each having
INTEL XEON QUAD CORE E5540 @ 2.5 GHz speed, 24 GM SATA HDD
Tape Backup of 80 TB, 40 TB Lustre file system and 10 TB User Home*



Mask Aligner



Wafer Bonder



Centre for Nano-X



Micro Tester



Contact Angle Goniometer



Wafer Bonder



Acoustic microscope



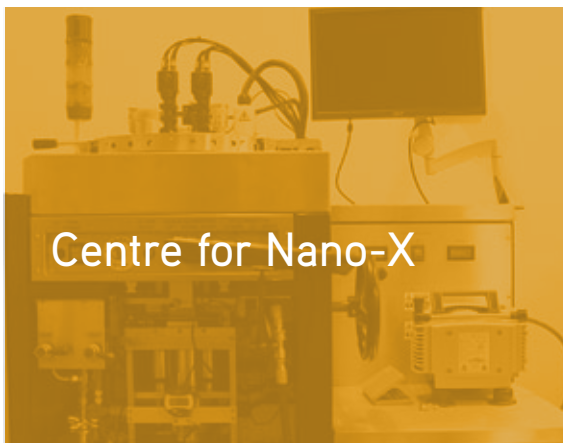
...RESEARCH LABS AT THE INSTITUTE



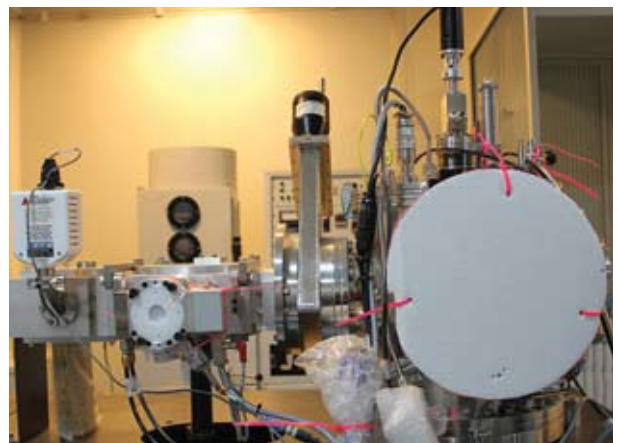
Electrical characterization system with probe



Wafer Polisher



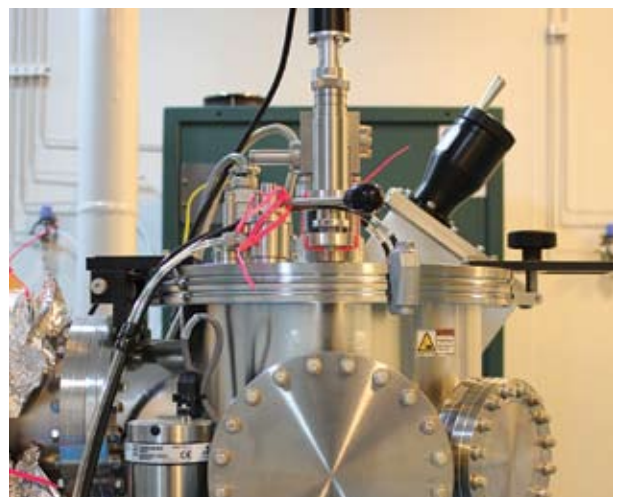
Centre for Nano-X



RF Sputtering Apparatus



Thermal Evaporator



RE Sputtering



Binocular Microscope and PCR Machine

Department of
Biotechnology and
Biomedical Engineering



Water Purification System



DNA Gel Documentation System



FPLC System



Microplate Reader



...RESEARCH LABS AT THE INSTITUTE



Department of
Chemical Engineering



High Temperature Furnace



Physisorption and Chemisorption Set Up



UV Cleaning System



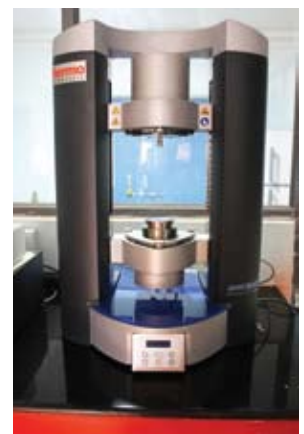
Electrospinning Set up



Flow Cytometer



*Bacterial Shaker /
Incubator*



Rheometer



High Resolution Mass Spectrometer



CHNS Analyser



Department of
Chemistry



Polarimeter



Single Crystal X-Ray Diffraction



Inductively Coupled Plasma Spectrometry



...RESEARCH LABS AT THE INSTITUTE



Swell Strain Apparatus



Vane Shear Apparatus



Cyclic Triaxial Apparatus



Department of
Civil Engineering



Consolidation Apparatus



Compression Test Apparatus with Controls



Direct Shear Apparatus



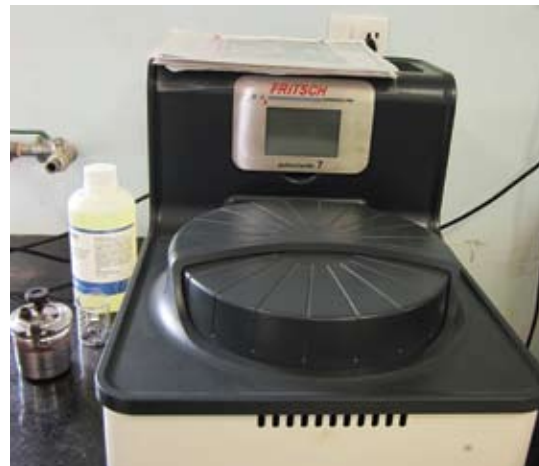
Differential Scanning Calorimetry



Micro Hardness Tester



Department of
Materials Science
and Engineering



High Energy Ball Mill



Abrasive Cutting Unit



Precision Cutting Unit



Compaction Press



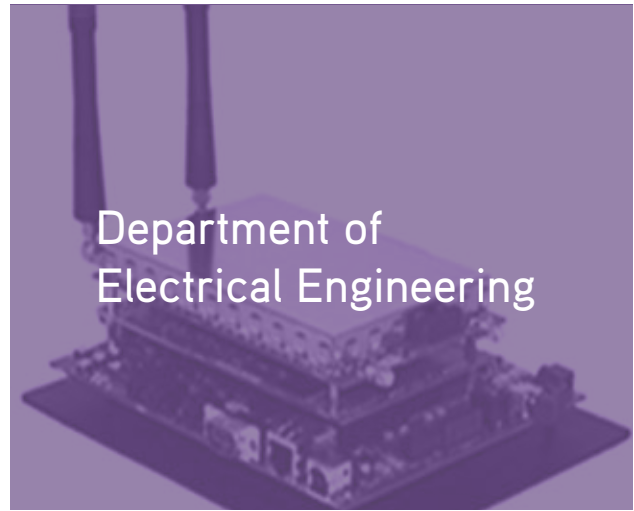
Automatic Polishing Unit



...RESEARCH LABS AT THE INSTITUTE



Solar Powered Air Pollution Monitoring System Based on IITH-Mote



Department of
Electrical Engineering



Microfluidic Channel System



NI-PXI System



Mechanical Characterization System



SFF-SDR



WARP MIMO Boards



Gas Sensor Boards



IITH-Mote



Sensor Data Interfaced to Smart Phones



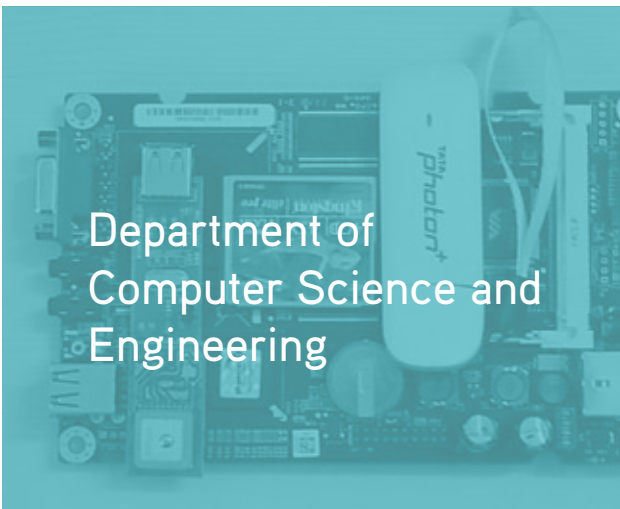
USRP-2



Dept Servers and DISANET Servers with SAN



Microsoft Surface



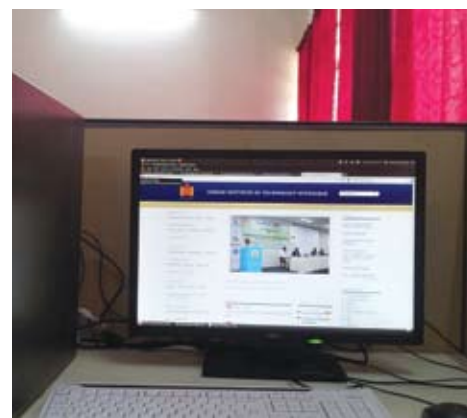
Software Systems Research Lab



DISANET Lab



ITS Tracking Unit



Xeon Workstation



...RESEARCH LABS AT THE INSTITUTE



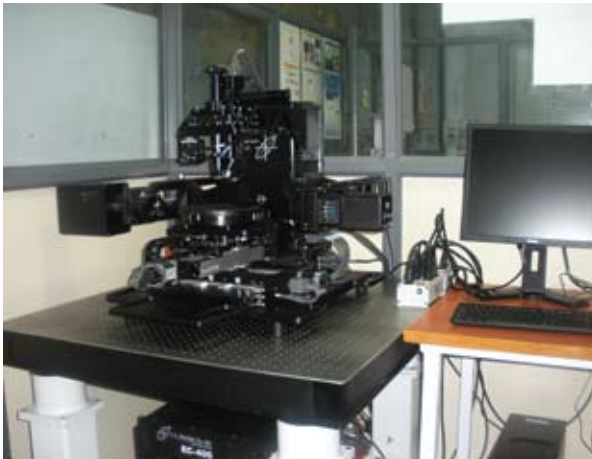
Students Doing Experiments with Clean Bench



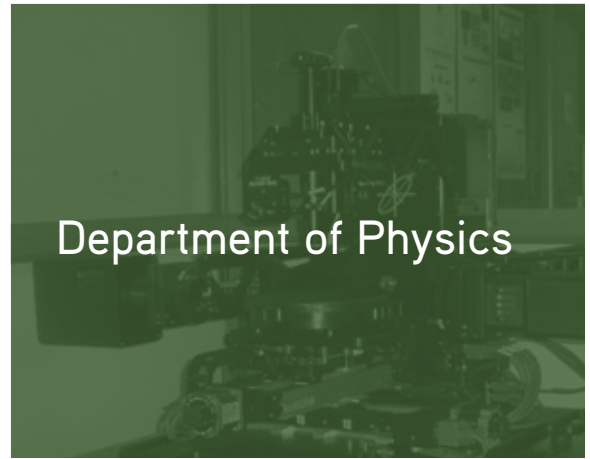
Wafer Inspection Microscope



A Student Working with Confocal Microscope



Elipsometry



Department of Physics



Wafer Inspection after Lithography



UV Flood Exposure



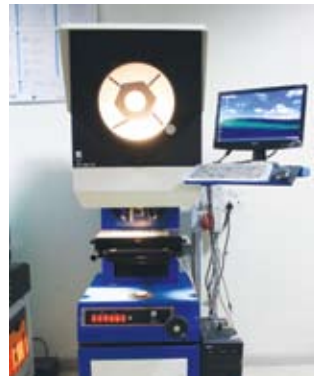
Student Working with Wafer Dicing Saw



Form measuring station



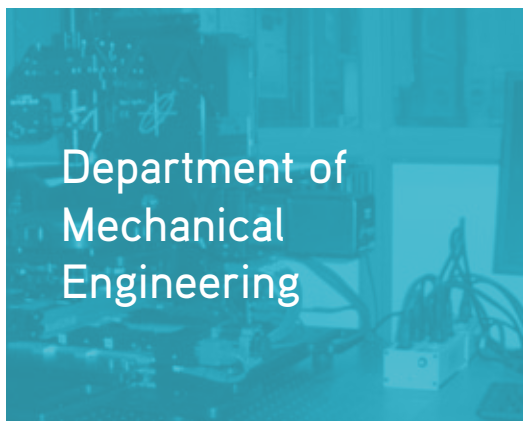
Wire EDM



Profile projector



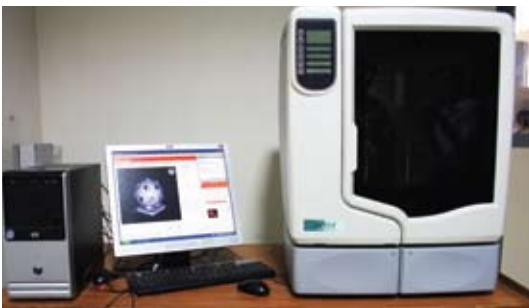
Trainer CNC lathe



Department of
Mechanical
Engineering



3 Axis Vertical Machining Centre



3D Printer



Measuring Microscope



> OUR UPCOMING NEW CAMPUS

The IIT Hyderabad campus, which is about 570 acres in area, will be developed in a phased manner.

Phase 1a is expected to be over by July 2013. IIT Hyderabad will start functioning from the new campus from Academic Year 2013-14.

The projected strength by the end of Phase 1a is:

- 1600 regular students
- 150 faculty members
- 10 post-doctoral fellows
- 100 permanent staff members
- 150 project staff members

The remaining part of Phase 1 is expected to be completed by 2017 and will be hosting nearly 6000 students. There will be a corresponding increase in faculty, staff and project staff.

At the end of Phase III, IIT Hyderabad is expected to have 15 academic departments catering to 20,000 students, with a total campus population of about 30,000.

The IIT Hyderabad campus is designed with the following vision:

- A crucible of interdisciplinary research.
- A modular campus with flexibility for future expansion.
- A green campus that is self-sustaining and resource-efficient.
- A harmonious campus environment that is conducive to exploration, learning and living.
- A campus that is sound and efficient in infrastructure.
- An energy-efficient campus from planning to completion.
- A campus that provides complete safety and security for its inhabitants.



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