

INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR

1st ANNUAL CONVOCATION

31st August 2012



Chief Guest

Dr. Anil Kakodkar

**Former Chairman
Atomic Energy Commission of India**

Prof. P. Rama Rao

Chairman, Board of Governors

Prof. Madhusudan Chakraborty

Director

1st Annual Convocation

31st August 2012

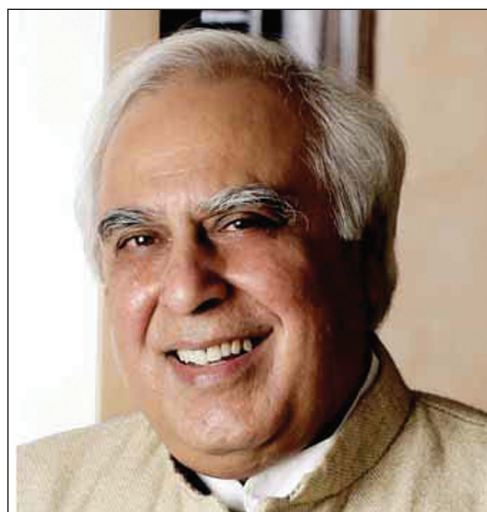
Programme

- 11.20 hrs.** Academic Procession proceeds to the Convocation Hall
Academic Procession arrives in the Convocation Hall
National Song
- 11.33 hrs.** Chairman, Board of Governors declares the 1st Convocation open
- 11.35 hrs.** Welcome by the Director and the Director's Report is presented
- 11.50 hrs.** Award of degrees by the Director:
- Dean (Academic Affairs) presents the Ph. D. degree recipient
 - Director hands over the degree and charges the degree recipient
 - Respective Head of the School presents the Bachelor of Technology (Honours) degree recipients in the following order:
i) Civil Engineering, ii) Electrical Engineering, iii) Mechanical Engineering
 - Director hands over the degree & charges the degree recipients
 - Registrar reads out the citation for Doctor of Science (*Honoris Causa*) and request the recipient to come to the dais
 - Director presents the degree to the recipient
- 12.15 hrs.** Dean (Academic Affairs) presents the Medal recipients
Chairman, Board of Governors awards the President Gold Medal and Institute Silver Medals
- 12.20 hrs.** Taking of the pledge by the degree recipients
(Pledge will be read by the President's Gold Medal recipient in Sanskrit)
- 12.25 hrs.** Address by the Chairman, Board of Governors
Chairman, Board of Governors requests the Chief Guest to deliver his Convocation Address
- 12.35 hrs.** Address by the Chief Guest
- 12.50 hrs.** Presentation of memento to the Chief Guest by the Chairman, Board of Governors
- 12.55 hrs.** Chairman, Board of Governors, Director, and Registrar sign the Record Book of Degree Recipients
- 12.57 hrs.** Chairman, Board of Governors proposes the Vote of Thanks
- 13.00 hrs.** Chairman, Board of Governors declares 1st Convocation closed
National Anthem
Academic Procession returns



Shri Pranab Mukherjee

Honourable President of India
and Visitor, IIT Bhubaneswar



Shri Kapil Sibal

Honourable Union Minister for
Human Resource Development
and Chairman, IIT Council



Prof. P. Rama Rao

Chairman
Board of Governors



Prof. Madhusudan Chakraborty

Director

THE CHIEF GUEST

Dr. Anil Kakodkar

Former Chairman

Atomic Energy Commission of India



Dr. Anil Kakodkar is a distinguished nuclear scientist championing India's mission to self-reliance on nuclear energy. He was the Chairman of the Atomic Energy Commission and the Secretary to the Government of India, Department of Atomic Energy. During 1996-2000, Dr. Kakodkar served as the Director of the Bhabha Atomic Research Centre (BARC) at Trombay.

Born on 11th November 1943, Dr. Kakodkar had his early education at Barwani in Madhya Pradesh. He graduated in Mechanical Engineering from VJTI, Bombay University in 1963, and joined BARC in 1964. In 1969 he obtained his

Masters degree from the University of Nottingham, UK.

At BARC he played a key role in the design and construction of the Dhruva reactor which is an icon of ultra-modern technology and originality. He was part of the core team of architects of India's Peaceful Nuclear Tests in 1974 and 1998. Further, he also led the indigenous development of Pressurised Heavy Water Reactor Technology. His work in the rehabilitation of the two reactors at Kalpakkam and the first unit at Rawatbhatta are examples of his engineering capability. A man of innovation, he has published over 250 scientific papers.

Dr. Anil Kakodkar is a Fellow of the Indian National Academy of Engineering, the Indian Academy of Sciences, and the National Academy of Sciences. He is member of the International Nuclear Energy Academy, honorary member of the World Innovation Foundation and Council of Advisers of World Nuclear Association. He was also a member of the International Nuclear Safety Advisory Group during 1999-2002. He is on the board of Governors of many leading institutes in the country.

The awards and distinctions conferred on Dr. Kakodkar are numerous. He is the recipient of Hari Om Ashram Prerit Vikram Sarabhai Award, Indian Science Congress Association's H. J. Bhabha Memorial Award, among many others. In 2009, Dr. Kakodkar received India's second highest civilian honour, the Padma Vibhushan.

DIRECTOR'S REPORT

Honourable Chairman of the Board of Governors of Indian Institute of Technology Bhubaneswar, distinguished Chief Guest, Dr. Anil Kakodkar, Members of the Board of Governors, Members of the Senate, invited dignitaries, the graduating students and their family members, my faculty and staff colleagues, media persons, friends, ladies and gentlemen.

I stand before you, on this historic occasion when the first batch of graduates of IIT Bhubaneswar will be receiving their degree on the first annual convocation of the Institute. Let me extend to you all the warmest welcome to this first annual convocation of the Institute.

Today, we are privileged to have amongst us Honourable Dr. Anil Kakodkar as the chief guest, who, despite his busy schedule is here to be with the graduating students.

Dr. Anil Kakodkar is a distinguished nuclear scientist championing India's mission of self-reliance in nuclear energy. He was the Chairman of the Atomic Energy Commission and the Secretary to the Government of India, Department of Atomic Energy.

After graduating in Mechanical Engineering from VJTI, Bombay

University, Dr. Kakodkar joined the Bhabha Atomic Research Centre (BARC) in 1964. In 1969 he obtained his Masters degree from the University of Nottingham. During 1996-2000, he served as the Director of BARC at Trombay.

At BARC, Dr. Kakodkar played a key role in the design and construction of the Dhruva reactor which is an icon of ultra-modern technology and originality. He was part of the core team of architects of India's Peaceful Nuclear Tests in 1974 and 1998. He also led the indigenous development of Pressurised Heavy Water Reactor Technology. A man of innovation, he has published over 250 scientific papers.

Dr. Anil Kakodkar is the recipient of several awards and recognition. To mention a few, he is the Fellow of the Indian National Academy of Engineering, the Indian Academy of Sciences, and the National Academy of Sciences. He is a member of the International Nuclear Energy Academy, honorary member of the World Innovation Foundation and Council of Advisers of World Nuclear Association. He was also a member of the International Nuclear Safety Advisory Group. He is the recipient of Hari Om Ashram Prerit Vikram Sarabhai Award,

Indian Science Congress Associations H. J. Bhabha Memorial Award, Dr. Y. Nayudamma Memorial Award, among many others. In 2009, Dr. Kakodkar received India's second highest civilian honour, the Padma Vibhushan.

I am certain that our graduating students would feel specially privileged to have Dr. Anil Kakodkar amidst us. Sir, I would like to extend a very special welcome to you to the Institute.

We are most fortunate that today many dignitaries have kindly consented to grace the occasion with their august presence. I extend my hearty welcome to all of them.

For the IIT Bhubaneswar family, it has been a wonderful journey of four years together. We are committed to our zeal of widening the frontiers of knowledge and enter into the unchartered territories of human experience. Now it is my privilege to present before you a brief account of our journey with important milestones and share with you our dreams of building an institute of distinction.

IIT Bhubaneswar – The Journey Begins:

IIT Bhubaneswar was established on 22nd July 2008 and became operational from the campus of IIT Kharagpur with 94 B. Tech. students. We moved to the city of Bhubaneswar in 2009 and our academic programme commenced

from 22nd July 2009. The Senate had its first meeting at Bhubaneswar on 29th August 2009 and the current Board of Governors first met on 4th March 2010.

Temporary Campuses

The Institute is currently operating from a number of campuses which include IIT Kharagpur Extension Centre at Samantapuri, Toshali Campus at Satyanagar and Workshop cum laboratory complex at Samantapuri. The Government of Odisha has provided us about one (1) acre of land on which we have constructed the Workshop cum Laboratory complex (3,010 sq. meters). The Government of Odisha has also made available two towers at Toshali Bhawan (10,000 sq. meters) which we have renovated. We are also getting generous support, in more ways than one, from Institute of Minerals, Metallurgical and Materials Technology (CSIR-IMMT) and Central Tool Room and Training Centre (CTTC). I sincerely thank all the members of these institutions for their continued support.

IIT Bhubaneswar is well equipped with modern class rooms and undergraduate/research laboratories. All the class rooms are fitted with multimedia projectors, internet facilities and wireless connectivity. The Institute has designed and developed three

virtual class rooms (VCR) sponsored by National Knowledge Network (NKN). These virtual class-rooms are equipped with high end AV and teaching equipment and are connected to the NKN by means of a dedicated 1Gbps leased line. The VCR facilities provide real time interaction among the students and faculty members of our Institute and those from other institutions.

IITs are known for the de rigueur to have a residential campus in order to facilitate one-to-one human interaction. The Government of Odisha has provided us 14 flats at Government Colony, Gajapati Nagar. We have found cooperation from the housing society in SBI Colony Kesura (10 km from city centre) wherein we have hired 65 HIG/MIG flats for the accommodation of our students, few of our staff and faculty members. Another hostel at Madanpur (15 km from the city centre) has been provided for M. Tech. students and Ph. D. scholars. In addition, IIT Kharagpur has constructed a new 200 capacity Dr. A. N. Khosla Hall of Residence at Samantapuri for the students of this Institute. I take this opportunity to thank IIT Kharagpur for constructing the hostel which is of great convenience to us. I would also like to put on record my deep appreciation to the students, the staff and faculty members who have to commute regularly between their residence and the various academic campuses. I am aware that this is

strenuous. But I am hopeful that our students, faculty and staff members would bear it and be a part of the history in the making.

Permanent Campus

The Foundation Stone of the permanent campus at Arugul (near Jatni) was laid on 12th February 2009. The Government of Odisha allotted 936 acres of land at Arugul for developing this IIT of which the Institute has already taken possession of 598 acres. The Government of Odisha has started construction of a 4-lane access road to the campus from the National Highway No. 5. The work on water and electric supplies to the campus is also in progress. The Government of Odisha has also agreed to provide 75 acres of land on the Puri–Konark coast line to set up an Innovation Centre for Climate Change for the School of Earth, Ocean and Climate Sciences.

Out of 19 km, construction of 13 km of boundary wall has been completed. More than 10 bore wells have been sunk to facilitate construction work. The Institute has also taken up tree plantation programme for its new campus.

The master plan of the new campus at Arugul has been approved for 10,000 students, 1000 faculty and 1100 supporting staff and the total construction should be completed in

3-phases in next 12-15 years. The Ground Breaking Ceremony was organized on 14th August 2011. The work for land grading, road and other related construction have started. The Government of India has approved construction of 221,000 sq. meters of covered area in the 1st phase. Our consultant has completed the designing of 130,000 sq. meters of covered areas for various Schools, residential quarters, hostels and other service/administrative buildings for construction based on the availability of fund in the initial phase. Clearances for construction from various statutory bodies have been obtained. The tendering process for part of the construction is over and I am very happy to announce that CPWD has just started the construction of the hostel complex. Our consultant and CPWD are also ready for tendering for the remaining part of construction. The Institute plans to move to its permanent campus by the beginning of 2014.

Academics

Academic Schools

We began our journey with a mission to promote a borderless academic environment with the concept of Schools, rather than Departments to enable and

encourage the academic staff and students to work in an interdisciplinary environment. Initially the following five (5) schools were set up:

- School of Basic Sciences (Bioscience, Chemistry, Mathematics, Physics)
- School of Electrical Sciences (Computer Science and Engineering, Electrical Engineering, Electronics & Communication Engineering, Energy, Instrumentation, Learning Sciences)
- School of Humanities, Social Sciences and Management (Economics, English, Management, Psychology)
- School of Infrastructure (Architecture, Civil Engineering, Town Planning, Traffic & Transportation Engineering Urban Design)
- School of Mechanical Sciences (Aerospace Engineering, Manufacturing & Industrial Engineering, Mechanical Engineering, Naval Architecture)

The state of Odisha and neighborhood including the vast coastline is rich in mineral resources and biodiversity. The region is also adversely affected by flood, cyclone and other natural calamities. In view of this, the Institute has set up the following two (2) Schools:

- School of Earth, Ocean and Climate Sciences

- School of Mineral, Metallurgical and Materials Engineering

The Institute is also setting up an Innovation Centre for Climate Change on the Puri-Konark coast line.

The following Schools are proposed to be set up in the second phase of expansion:

- School of Chemical and Biochemical Engineering (Biochemical, Biomedical and Chemical)
- School of Design and Creative Arts

Academic Activities

The Institute started its journey in 2008 with a total of 94 students in three (3) undergraduate programmes viz. Civil, Electrical and Mechanical Engineering, with an intake of 40 students in each programme. The Institute has introduced Ph. D. programme from 2009. From July 2012 we have started postgraduate (Joint M. Tech. – Ph. D.) programmes in Electronics & Communication Engineering, Civil Engineering, Mechanical Engineering, Climate Science & Technology, Applied Geoscience and Materials Science & Engineering. The Institute is going to start Joint M. Sc. – Ph. D. program in Chemistry, Earth Science, Physics and Mathematics from the next academic session.

Currently the Institute has 571 students (B. Tech. 456; Preparatory 2; M. Tech. 41; Ph. D. 72), 70 full-time faculty members, 1 Chair Professor, 6 officers and 40 supporting staff.

It is heartening to note that the pioneer batch of undergraduate students who are receiving their degree today are all placed. Many of the students have received offer of admission/scholarships from prestigious universities abroad: Stanford University, University of Illinois at Urbana Champaign, Cornell University, Ohio State University, Pennsylvania State University, University of Texas, Imperial College of London to name a few.

Research & Development Activities: In-house, Sponsored, Consultancy

Our faculty members, research scholars and undergraduate students have been actively pursuing research in varying areas. The Institute has received a number of sponsored projects from various funding agencies like DST, CSIR, DBT and DRDO and consultancy from industries worth more than Rupees 480 lakhs. The faculty members are also engaged in various consultancy activities. Project proposals worth more than Rupees 700 lakhs have been submitted.

IIT Bhubaneswar has been successful in its bid for the following UK-India Education and Research Initiative (UKIERI) projects:

Joint Masters and Split-Site Ph. D. Programme:

An Integrated Doctoral and Masters Programme with the University of Warwick - To develop an integrated suite of postgraduate joint degree programmes.

Thematic Partnerships Programme 1:

UKIERI Thematic Partnership in Low Carbon Materials Technologies, Innovation and Application jointly with the University of Warwick - To enable the rapid and effective introduction of new steel and multi-material combinations, for new applications addressing the global imperative of carbon reduction.

Thematic Partnerships Programme 2:

UKIERI Thematic Partnership jointly with the University of Southampton and National Oceanography Centre and University of Massachusetts at Dartmouth - To establish the School of Earth, Ocean and Climate Sciences at the Indian Institute of Technology Bhubaneswar and Marine Campus on the Bay of Bengal.

I would like to highlight in brief the on-going R&D activities in various Schools:

The School of Basic Sciences is a cluster of disciplines namely

Bioscience, Chemistry, Mathematics and Physics. The School is carrying out research in the areas of multimetallic catalysis, organometallic chemistry, supramolecular chemistry, coordination chemistry, synthesis of natural products and intermediates. The research work in biosciences is focused on understanding the structure and function of various proteins of eye lenses, leprosy, and tuberculosis. The research in high energy physics is focused on understanding fundamental particles and their interaction using theoretical tools such as string theory, and experimental setup in collaboration with CERN, Geneva. Specific areas include conformed field theory, pure spinor formalism of superstrings, super symmetry and black holes. A number of projects have been undertaken in the area of the plasmonics, photonics, ion-surface interactions, design and development of sensors, magnetic grids, energy storage devices and optoelectronic devices. Multidisciplinary work is underway in the area of nanomaterial-based device design, assembling and clustering. On-going research in mathematics includes complex dynamics and fractals, variational inequalities and complementary problems, queuing theory, mechanics, computational fluid dynamics, algebraic graph theory, neural network and artificial intelligence.

The major R & D activities of the School of Earth, Ocean and Climate Sciences

includes monitoring, prediction and providing mitigation solutions for natural disasters with sound and precise observational network of meteorological, oceanographic, geological and geophysical instruments combined with data-assimilative modeling in a multi-institutional framework and use of Information and Communication Technology (ICT), thereby becoming a hub of such activities on the east coast of India with an international presence. The thrust areas are: Climate Modeling, Modeling of extreme events, Cloud Physics, Numerical Weather Prediction, Natural Resources-exploration and utilization, Climate Change and its Effects, Biological Oceanography, Application of the Space Technology for the Study of the Earth System Science, Soil-Water Interactions, Waste Utilization, and Pollutant Pathways.

The research activities in the School of Electrical Sciences includes the following: Antenna Design, Smart Antenna Techniques for MIMO Systems, Radio Frequency Identification System Design & Application, Non-Destructive Testing Methods, Digital Signal Processing, Speech & Real Time Interactive-Audio Processing, Active Noise Control, Cognitive Radio, Sensor Networks, Intelligent Instrumentation, Opto-Electronic Devices, Long-haul Optical Communication System Design, Optical Sensor, Communication &

Wireless Communication System Modeling & Design, Semiconductor Material & Device Characterization, Wide Band Gap Semiconductor Devices, MMICS, Decoupling & Robust Control, Periodic Feedback Control, Power Quality Analysis, Custom Power Devices, Renewable Energy Sources, Application of Soft-Computing Techniques to Power Systems, Intelligent Protection to Transmission Systems-Facts, Micro & Smart Grids, Distributed Generation & Dynamic Security Assessment in Large Power Network, Structural Health, Integrity Analysis & Monitoring (SHIM).

The School of Humanities, Social Science & Management is pursuing research in the areas of Environmental Economics, Natural Resources Economics, Macroeconomics, Development, Economics & Rural Development, Indian Writing in English, Post-Colonial Literature, Travel Writing, Business Communication, American Literature, Canadian Literature, ELT, Cross Cultural Communication, Autobiography, Consumer Behaviour, Cyber Psychology, Clinical Psychology, Cognitive Psychology, Cognitive Neuroscience, Psycholinguistics, Psychology of Personality, Marketing.

The present research in the School of Infrastructure are in the thrust areas of Concrete Technology, Earthquake

Engineering, Traffic Flow Modeling, Travel Demand Modeling, Travel Behaviour Analysis, Transportation System Planning & Policy Address, Energy Geotechnology, Soil-Structure Interaction, Fluvial Hydraulics, Waste Water Engineering, Water Resources Engineering, Study of Unsaturated Soils Behavior.

The School of Mineral, Metallurgical and Materials Engineering is actively pursuing research in the areas of Solidification Processing, Metal Matrix Composites, Ti-Based Alloy, Automotive Applications, In-situ Metal Matrix Composites, Semi-solid Processing, Structure-Property-Processing Correlations in Metals, High Cycle Fatigue and Fracture in Metals, Friction Stir Welding/Processing, Modeling & Simulation, Structural & Magnetic Frustration of Materials, Synchrotron and Neutron diffraction, 3-D Atom probe (LEAP), Metallic Glasses, Process Modeling & Study of Diffusion in Solids.

The School of Mechanical Sciences conducts R&D activities in the following areas: Computer-Aided Design & Manufacturing, Robotics & Controls, IC Engines, Multi-Phase Flow, Computational Fluid Dynamics, Conjugate Heat Transfer, High Reynolds Number Turbulence, Optical Flow Diagnostics, Turbulence Modeling & Simulation and Acoustics, Composite

Materials, Sandwich Structures, Fracture Mechanics, Material Science, Green Supply Chain Management.

Publications

Within 3 years of existence in the city of Bhubaneswar, the faculty members and students have contributed to creating new knowledge by publishing 230 original research papers in National and International Journals of repute, and 20 books/book-chapters. Besides, 128 papers have been presented in various National and International Conferences in India and abroad. Our undergraduate students have also made technical presentations in conferences, nationally and internationally.

Endowment

Industries have come forward to join us in developing this new IIT. The MGM Minerals Group has established a perpetual “MGM Chair Professorship” in the School of Minerals, Metallurgical and Materials Engineering with an endowment of Rs 300 lakhs. In addition the MGM Minerals Group has instituted two awards for best B. Tech. theses (Electrical and Mechanical Engineering) in memory of Tejaswi and Dinesh, two budding students of our Institute, whom we lost in a tragic train accident in March 2011.

International Collaborations

IIT Bhubaneswar has started collaborative activities with a few Universities abroad. The Institute has already signed MOUs for faculty and student exchange programmes with the University of Massachusetts at Dartmouth USA; the State University of New York at Buffalo, USA; the University of North Texas, Denton, USA; the Warwick Manufacturing Group (WMG) of the University of Warwick, UK; the University of Edinburgh, UK; and the University of Western Ontario, Canada. Professor Lord S. Kumar Bhattacharyya of the WMG, of the University of Warwick has been appointed as Distinguished Visiting Professor of IIT Bhubaneswar while Professor Richard Dashwood of the same university was a visiting Professor during March 2011. Professor Asit K. Biswas, President of the Third World Centre for Water Management, Winner of Stockholm Water Prize (2006) and Dr. B. B. Rath, Associate Director of Research, Naval Research Laboratory Washington DC, USA are Distinguished Visiting Professors of this Institute. The Institute is also proud to have Professor Avijit Gangopadhyay of University of Massachusetts, Dartmouth, Professor Lalu Mansinha of University of Western Ontario, Professor K. L. Chopra, Professor Amitabha Ghosh, Professor O. N. Mohanty, Dr. T. C.

Rao, and Justice Markandey Katju as the Honorary Institute Professors.

Summer Internship & Placement

Our students have received support from various Universities and Industries in India and Abroad for summer internships. Some of these Universities and Industries Abroad are the University of North Texas, Oklahoma State University, University of Massachusetts at Dartmouth, Northern Arizona University in USA, University of Warwick in UK, McGill University, Canada, University of Cologne, Germany, University of Padua Italy, Flanders Mechatronics Centre, Belgium, ExTechNa GmbH Switzerland, University of Zacadecas, Mexico, Tianjin University, China, Ming Chi University, Taiwan and University of Technology, Malaysia. As mentioned earlier, all the graduating students of the 1st batch of B. Tech. from IIT Bhubaneswar have been placed.

Workshops & Conferences

A number of conferences and workshops have been organized by the Institute to foster scholarly exchange of ideas and research collaboration. The Institute organized a one day workshop "An Academy-Industry Interface" with participation from the Warwick

Manufacturing Group, the University of Warwick, UK, IIT Bhubaneswar, Tata Steel, Infosys, IBM, WIPRO, L&T and others on 17th September 2010. A Challenge to the Indian Industry” on 12th March 2011. The Career Development Cell had organized a Panel Discussion “Managing Generation Y in workplace: Another workshop “Multivariate Statistical Analysis” was organized by the School of Humanities, Social Science and Management on 24th March 2011. Also a Workshop on Electron Microscopy (WEM 2011) was organized jointly with Electron Microscopy Society of India and the Institute of Physics Bhubaneswar during 23rd-24th Nov 2011. The Institute has started organizing “Research Scholars Day” on the National Science Day on 28th February every year. The Institute organized the 35th National System Conference, of the System Society of India during 9th-11th December 2011. A Workshop on “Water Resources Management in India in the 21st century” was organized during 27th-29th December 2011. The School of Mechanical Sciences conducted a short term course in “CFD & Heat Transfer” on 14th-18th May 2012. The School of Electrical Sciences held a national workshop on “Swarm Intelligence” during 25th-27th May 2012. The School of Humanities, Social Sciences & Management held a national workshop on “Environmental Impact Assesment” on 9th-10th June 2012. The School of Earth, Ocean and Climate Sciences in collaboration with the Centre

for Atmospheric Sciences, IIT Delhi organized “Indo-US Advance Workshop and Colloquium on Modeling and Data Assimilation for Tropical Cyclone Predictions” during 9th-14th July 2012.

Awards & Honours

The Institute is singularly proud that the Chairman Board of Governors, Professor P. Rama Rao, has received the second highest civilian award “Padma Vibhushan” of the Government of India.

Our students and faculty members have brought numerous laurels to this Institute in terms of distinguished fellowship, associateship, named lectureship, coveted medals and awards. This is a testimony to the vibrant academic spirit of the Institute. A few of these distinctions are noted below.

Prof. P. C. Pandey of the School of Earth, Ocean and Climate Sciences has been elected Fellow of Indian Society for Mathematical Modelling and Computer Simulation. Prof. G. Panda of the School of Electrical Sciences has been elected as the Fellowship of Institute of Engineering and Technology (UK). Dr. T. Nayak of the School of Basic Sciences has been awarded the Junior Associateship of International Centre for Theoretical Physics (ICTP). Prof. S. C. Dutta of the School of Infrastructure was awarded Fulbright-Nehru Sr. Research Fellowship and visited the University

of California at Davies, USA. He also received the Occasional Lecturer Fund by Council for International Exchange of Scholars, US Department of State, to deliver invited lectures at University of Massachusetts, Dartmouth, USA. Professor V. R. Pedireddi of the School of Basic Sciences was awarded the Chemical Research Society of India (CRSI) medal. Dr. S. Pal, School of Basic Sciences received the Prof. G. N. Mahapatra endowment Award from Utkal University. Dr. A. D. Banik, School of Basic Sciences received the Fundação para a Ciência e a Tecnologia (FCT) fellowship. Professor M. Chakraborty received the Best Technical Paper Award 2010 from the Indian Foundry Journal of the Institute of Indian Foundrymen. Dr. D. Sahoo of Humanities, Social Sciences and Management received the Best Paper Award at the International Workshop on Regional Competitiveness and International Factors Mobility at Oriens France. Dr. A. Barve of School of Mechanical Sciences received the Excellent Paper Award at ICMS-2011 & ICCPM-2011 in Singapore. Dr. S. R. Samantaray, School of Electrical Sciences won the Samanta Chandra Sekhar Award for 2010 from Odisha Bigyan Academy for his contribution to Engineering and Technology. Dr. Sumanta Halder, School of Infrastructure received the Prof. Leonard's best Ph. D. thesis award from the Indian Geotechnical Society. Dr. C. N. Bhende of the School of Electrical Science received

the best Ph. D. thesis award from Indian National Academy of Engineering. Mr. Pyari Mohan Pradhan, Mr. Satyasai Jagannath Nanda and Mr. Vikas Baghel, research scholars of the School of Electrical Sciences were awarded the "Commonwealth Graduate Student Exchange Programme" fellowship by the Department of Foreign Affairs and International Trade of Government of Canada. Mr. Raghav R, a graduating student of Mechanical Engineering won the all India essay competition for college students conducted by the NGO: Nandini Voice for the Deprived. Mr. Punng Padhy, 3rd year Electrical Engineering Student has received the Kishore Vaigyanik Protsahan Yojana (KVYP) scholarship in the Engineering category.

Events at the Institute

Celebrations

The 4th Foundation Day of the Institute was celebrated on 12th February 2012. Hon'ble Justice Markandey Katju, Chairman of the Press Council of India graced the occasion.

The 1st Foundation Day Lecture was delivered by Prof. Lord S. K. Bhattacharyya, Founder and Chairman of the WMG, the University of Warwick on 12th February 2012.

The National Science Day Lecture was delivered by Prof. K. L. Chopra on 28th February 2012.

The Institute also organized a socio-cultural programme to observe the International Women's Day on 8th March 2012.

The 5th Institute Day was celebrated on 22nd July 2012. Shri Baijayant Panda, Hon'ble Member of Parliament and Member Consultative Committee, Ministry of HRD graced the occasion as the Chief Guest.

Distinguished Visitors

A number of distinguished personalities visited IIT Bhubaneswar in the past year and addressed our students and faculty. Notable amongst them were Professor Lord S. K. Bhattacharyya, Founder and Chairman of the Warwick Manufacturing Group of the University of Warwick, UK; Dr. D. Subbarao, Governor Reserve Bank of India; Prof. Asit Biswas, President of the Third World Centre for Water Management Mexico; Hon'ble Justice Markandey Katju, Chairman of the Press Council of India; Hon'ble Justice U. C. Banerjee; Prof. Samir K. Brahmachari, Director General, CSIR; a team of 8 professors from the University of Warwick led by Professor Koen Lambarts, Pro-Vice Chancellor of the University; a team of 4 professors led by Prof. Lalu Mansinha from the University of Western Ontario, Canada; 3 Professors from the University of Massachusetts at Dartmouth, USA; Professor Alex J.

Fowler, Vice Provost of Graduate Studies and Professor Farrokh Mistree, Director of Mechanical and Aerospace Engineering, Oklahoma University USA; Professor B. B. Rath from Naval Research Laboratory, USA; Dr. Kamal Kant Dwivedi, National Council for Science and Technology Communication DST, Govt. of India; Prof. Bhanoji Rao, NUS Singapore; Shri S. K. Roongta, Former Chairman SAIL among many others.

Student Activities

Our students under the Students Gymkhana are quite active and are organizing various activities. They have formed several societies like Robotics Society, Entrepreneurship Cell, Dramatic Society, Music Society to name a few. They have been organizing Socio-Cultural (Alma Fiesta) and Techno-Management (Wiessenaire) festivals successfully every year with support from many sponsors/industries drawing participations from various colleges/institutions across the country. The students are regularly taking part in inter-IIT sports meet and various other inter-IIT social and cultural events.

Alumni Association

The 1st batch of graduating students had participated in the PANIIT event

at Bhubaneswar on 5th May 2012, and have formed the IIT Bhubaneswar Alumni Association.

Graduates of the Year

In this convocation we are going to confer degrees to the first doctorate of the Institute and to ninety-three (93) B. Tech. outgoing students. I am pleased to announce that the following students are recipients of Institute Medals.

- Shri Raghav R. of the School of Mechanical Sciences is the recipient of the President's Gold Medal for the best academic performance among the outgoing B. Tech. (Hons.) students. He also wins the Institute Silver Medal for the best academic performance among the outgoing students of the School of Mechanical Sciences.
- Shri Vasu Gupta is the recipient of the Institute Silver Medal for the best academic performance among the outgoing B. Tech. (Hons.) students of the School of Electrical Sciences.
- Shri Anurag Raj is the recipient of the Institute Silver Medal for the best academic performance among the outgoing B. Tech. (Hons.) students of the School of Infrastructure.

We are proud in conferring the first D. Sc. (Honoris Causa) of this Institute on

Dr. Bhakta B. Rath, Associate Director of Research and Head, Materials Science and Component Technology Directorate, Naval Research Laboratory, Washington, DC, USA.

I, congratulate all the graduating students, awardees and medal winners. Graduation is a milestone in the journey of life and the first batch of graduates are going to enter the big world of opportunities and endeavours. With their most formative years behind them, they begin a journey called life. I am sure you have prepared yourselves thoroughly to thrive and prosper, compete and conquer, to rise to the pinnacle of glory. I am certain that you will look back with pride and joy to your days in this Institute and the memories will continue to inspire you in your pursuit of excellence in the field of your choice. You will always remain an intrinsic part of this Institute. As the first batch of graduates, I see you as the ambassadors of good will, peace, knowledge and transformation. May you excel, innovate and accomplish great things in your life, accepting failure with a smile, as you march ahead.

Jai Hind

Professor M. Chakraborty

31st August, 2012

DOCTOR OF SCIENCE (HONORIS CAUSA)

Dr. Bhakta B. Rath

Associate Director of Research & Head

Materials Science and Component Technology Directorate

Naval Research Laboratory, Washington, DC, USA



Dr. Bhakta B. Rath, born in Banki, Odisha, India, completed his undergraduate studies in India and obtained his Ph. D. and M. S. degrees from the Illinois Institute of Technology and the Michigan Technological University, USA, respectively. Dr. Rath worked as an Assistant Professor of Metallurgy and Materials Science at Washington State University from 1961 to 1965. From 1965 to 1972, he was with the staff of the Edgar C. Bain Laboratory for fundamental research of the US Steel Corporation. From 1972 to 1976, he was the Head of the Metal Physics Research Group of the

McDonnell Douglas Research Laboratories in St. Louis, Missouri, until he joined Naval Research Laboratory of United States of America as Head of the Physical Metallurgy Branch. During this period, he was also Adjunct Professor at Carnegie-Mellon University, the University of Maryland, and the Colorado School of Mines. Dr. Rath served as Superintendent of the Materials Science and Technology Division from 1982 to 1986, when he was appointed to his present position.

As Head of the Materials Science and Component Technology Directorate and Associate Director of Research of the Naval Research Laboratory USA, Dr. Rath has been responsible for planning, supervision, and administration of all basic and applied research in condensed matter physics, chemistry, electronics, materials science and biomolecular science and technology conducted by a staff of over 700 scientists, engineers, and support personnel. He created the Centers for Biomolecular Science and Engineering, Environmental Quality Sciences, and Computational Materials Science, and the Institute of Nanoscience.

Dr. Rath is recognized in the fields of solid-state transformations, grain boundary migrations, and structure-property relationships in metallic systems. Author and

co-author of over 200 technical papers, Dr. Rath has been invited to deliver over 300 keynote and plenary lectures, and has edited several books and conference proceedings.

Dr. Rath serves on several planning, review, and advisory boards for both the Navy and the Department of Defense, as well as for the National Research Council, the National Academy of Engineering, the National Materials Advisory Board of the National Academy of Sciences, National Science Foundation, Carnegie-Mellon University, University of Virginia, Colorado School of Mines, University of Maryland, University of Connecticut, Florida Atlantic University, Lehigh University, and the University of Florida. He is currently the Navy representative to the DOE Deputy Assistant Secretary's advisory and planning committee on methane hydrates, and the Navy representative to the Indo-U.S. Joint Commission on Science and Technology. He previously served as the Navy representative and as the Executive Chair, materials panel of The Technical Cooperation Program (TTCP) countries. Dr. Rath is a member of the National Academy of Engineering. He is a fellow of the Minerals, Metals and Materials Society (TMS), American Society for Materials-International (ASM), Washington Academy of Sciences, Materials Research Society of India, and the Institute of Materials of the United Kingdom. He has served as the President of the American Society for Materials during 2004-2005. He also has served as a member of the Boards of Directors/Trustees of TMS, ASM-International, Education Foundation, the Federation of Materials Society (FMS), as a member of the editorial boards of three international materials research journals, and as chairman of several committees of technical societies.

In 2007, Dr. Rath received honorary doctorate in engineering from the Michigan Technological University and was elected to deliver the commencement address to the 2007 graduating class. In 2008, he received the Illinois Institute of Technology Mechanical Materials & Aerospace Engineering Department 2008 Alumni Recognition Award. In 2010, he received an Honorary Doctorate from Ravenshaw University in Orissa, India.

Dr. Rath has received a number of honors and awards including Michigan Tech Alumni Association Distinguished Alumni Award, the DOD Distinguished Civilian Service Award which is presented by the Secretary of Defense for distinguished accomplishments and sustained superior service, among many others. He is a Fellow of the Washington Academy of Sciences, TMS, Institute of Materials, UK, and the Indian National Academy of Engineering. He is also an Honorary Member of the Indian Academy of Science.

The Government of India conferred Padma Bhushan on Dr. Bhakta B. Rath in 2009.

MEDALS AND PRIZES

INSTITUTE GOLD MEDAL

PRESIDENT OF INDIA GOLD MEDAL



Raghav R., 08ME01004

School of Mechanical Sciences

INSTITUTE SILVER MEDALS



Vasu Gupta, 08EE01039

School of Electrical Sciences



Anurag Raj, 08CE01021

School of Infrastructure



Raghav R., 08ME01004

School of Mechanical Sciences

ENDOWMENT AWARDS

Dinesh Memorial Award

Rajkamal Sendha, 08ME01003

&

Prabhat Chandra, 08ME01031

Tejaswi Memorial Award

Vasu Gupta, 08EE01039

INSTITUTE PROFICIENCY PRIZES

Preetam Priyadarshi Nayak, 08EE01026

School of Electrical Sciences

Ranjeet Kumar, 08CE01022

School of Infrastructure

Raghav R, 08ME01004

&

Anand Nagarajan, 08ME01010

School of Mechanical Sciences

Graduation Data: 2012

Disciplines	B. Tech.	Ph. D.	Total
Civil Engineering	28	-	28
Electrical Engineering	36	1	37
Mechanical Engineering	29	-	29
Total	93	1	94

DOCTOR OF PHILOSOPHY

Name of the School, Candidate's Name, and Thesis Topic

School of Electrical Sciences

Nithin V. George Development of a class of adaptive
09EE09001 algorithms for active noise control

BACHELOR OF TECHNOLOGY (HONOURS)

Civil Engineering

08CE01001	G P Harsha Vardhan Reddy
08CE01002	Somala Gangadhar Reddy
08CE01003	Mohammad Yadish Faraz Khan
08CE01005	Shalini Mayanka
08CE01006	Maruti Nandan Tripathi
08CE01007	Madem Harika
08CE01008	Gurijala Sriram
08CE01009	Shankar Lal Tayal
08CE01010	Mudit Sharma

08CE01011	Manda Kartik Reddy
08CE01012	Sameep Arora
08CE01015	Nimish Shrivastava
08CE01016	R Sanjay
08CE01017	Manish Jindal
08CE01019	Vijay Kumar
08CE01020	Abhas Maheshwari
08CE01021	Thamba Nirmal Babu
08CE01022	Ranjeet Kumar
08CE01023	Nartu Manoj Kumar
08CE01024	Pravin Ranjan
08CE01025	Anurag Raj
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08CE01027	Sashikanth B
08CE01028	Konapala Goutam
08CE01029	Pradosh Kumar Sahoo
08CE01031	Ravi Katiyar
08CE01032	Aparna U M
08CE01033	Karne Kashi Vishwanath

Electrical Engineering

08EE01001	Darlapudi Bharat Kumar
08EE01002	Anuraag Jayanti

08EE01003	Panakala Mruthyumjaya Avinash
08EE01005	Radhakanth Kodukula
08EE01006	Sahil Makkar
08EE01007	Mallu Venkata Siva Reddy
08EE01008	Ajay Shukla
08EE01009	Krishna Chaitanya V
08EE01010	Ashish Singhal
08EE01011	Prashant Jha
08EE01012	Mayank Sethi
08EE01013	Abhimanyu Panwar
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08EE01019	Rohin Bisht
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08EE01021	Gowtham Sekhar Ganta
08EE01022	K N Raghavendra Surya Vara Prasad
08EE01023	Sudheer Balleda
08EE01024	Krishna Chaitanya Potnuru
08EE01025	Allam Levi Ratnakar
08EE01026	Bylapudi Suresh
08EE01027	Kadimela Deepak
08EE01028	Preetam Priyadarshi Nayak
08EE01029	Sukirtha Aruna

08EE01030	Kovuru Siddhartha
08EE01031	Sujit Kumar Bharti
08EE01032	A Kiran Chakravarthy
08EE01033	Mihir Kumar Roy
08EE01034	Himanshu Phulwaria
08EE01035	Atul Naharwara
08EE01036	Sumeet Keshkar
08EE01037	Chandan Kumar G V
08EE01038	Rai Awani Bhushan Gajendra
08EE01039	Vasu Gupta

Mechanical Engineering

08ME01001	Pappala Raja Sekhar
08ME01002	Sai Sravanthi Pasumarthi
08ME01003	Rajkamal Sendha
08ME01004	Raghav R
08ME01005	Koustav Bandyopadhyay
08ME01006	Pradyumna Vajjah
08ME01007	Sanka Aravind
08ME01009	G Ravi Kumar
08ME01010	Anand Nagarajan
08ME01012	M Santhosh Reddy

08ME01016	Gaurav Kejriwal
08ME01017	Ankush Mittal
08ME01018	Anurag Samantara
08ME01019	Varun H Nichani
08ME01020	Utkarsh Kumar Srivastava
08ME01021	Vikash Kumar
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08ME01023	Kanchi Vinod Kumar
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08ME01026	Kurella Vamshi Krishna
08ME01027	Anshuman Kumar
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4.	Designing & Arrangement of Costume	Prof. S. C. De Sarkar	Dr. A. Shukla Dr. P. Panda Shri N.R. Maiti Ms. Nibedita Patnaik
5.	Arrangement for VIPs	Shri B. K. Ray	Shri M. K. Behera
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7.	Physical facilities in Auditorium & Decoration	Dr. P. K. Sahu	Dr. Rajan Jha
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10.	Medical Assistance	Dr. N. K. Patnaik	Shri Basanta Das
11.	Finance	Shri B. K. Ray	Shri M. K. Behera
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