

Contents

Subject	Page No.
Organization and Administration	
Council of Indian Institutes of Technology	
Board of Governors	
Finance Committee	
Building and Works Committee	
Administrative Heads	
The Senate	
The Report 2011-2012	
The Diamond Jubilee Year	
Academic Programmes	
57 th Convocation	
Research and Development Activities	
Academic Performance of faculty	
Education and Research Infrastructure Development	
Physical Infrastructure Development	
Health Care	
International Collaboration	
Sponsored Research and Industrial Consultancy	
STEP- IIT Kharagpur	
Conferences, Symposia, Seminars and Workshops	
Continuing Education Programme	
Laurels and Distinctions Awarded to Faculty	
Laurels and Distinctions Awarded to Students	
Training and Placement	
Students' Affairs	
Alumni Affairs	
Contributions by Alumni	
Statistical Information	
Table A-1: Admission to Undergraduate Courses	
Table A-2: Admission to 2-Year M.Sc. Courses	
Table A-3: Students Awarded M.C.M. Scholarship	
Table A-4: Students Awarded only Free Tuitionship	
Table A-5: Students (SC & ST) Awarded Financial Assistance	
Table A-6: Endowment Prizes - (Under Graduate)	
Table A-7: Students Awarded Scholarships by External Agencies	
Table A-8: Students on Roll – Undergraduate	
Table A-9: Statement of Results (Undergraduate)	
Table B-1: Admission to Postgraduate Courses	
Table B-2: Postgraduate Students on Roll	
Table B-3: Statement Of Results Of Postgraduate Examination	
Table C-1: Number of Research Scholars Enrolled for the Ph.D. Degree	
Table F-1: Financial Information	

**List of Members of the re-constituted Council of
Indian Institutes of Technology**
As on June, 2012

Name		Provision in the Act
Shri Kapil Sibal Hon'ble Minister (HRD)	Chairman of the Council of IITs	<i>Ex-officio</i> [Section 31(2) (a)]
Shri Deepender Singh Hooda, MP, Lok Sabha	- do -	- do -
Shri Janardhana Swamy MP, Lok Sabha	- do -	- do -
Smt. Vasanthi Stanley, MP, Rajya Sabha	Member (co-terminus)	[Section 31(2) (k)]
Dr. Anil Kakodkar Chairman, BoG, IIT Bombay	Member	<i>Ex-officio</i> [Section 31(2) (b)]
Dr. Vijay P. Bhatkar Chairman, BoG, IIT Delhi	Member	- do -
Dr. R.P. Singh Chairman, BoG, IIT Guwahati	Member	- do -
Prof. M. Anandakrishnan Chairman, BoG, IIT Kanpur	Member	- do -
Mr. M. M. Sharma Chairman, BoG, IIT Madras	Member	- do -
Dr. Shiv Nadar Chairman, BoG, IIT Kharagpur	Member	- do -
Shri Analjit Singh Chairman, BoG, IIT Roorkee	Member	- do -
Prof. Devang V. Khakhar Director, IIT Bombay	Member	<i>Ex-officio</i> [Section 31(2) (c)]
Prof. R. K. Shevgaonkar, Director, IIT Delhi	Member	- do -
Prof. S. G. Dhande Director, IIT Kanpur	Member	- do -
Prof. Damodar Acharya Director, IIT Kharagpur	Member	- do -
Prof. Bhaskar Ramamurthi, Director, IIT Madras	Member	- do -
Prof. Gautam Barua Director, IIT Guwahati	Member	- do -
Prof. Pradipta Banerji, Director, IIT Roorkee	Member	- do -
Prof. Ved Prakash Chairman (actg.), University Grants Commission,	Member	<i>Ex-officio</i> [Section 31(2) (d)]
Prof. Samir K Brahmachari,	Member	<i>Ex-officio</i>

Director General (DG), Council of Scientific and Industrial Research		<u>[Section 31(2) (e)]</u>
Dr. K. Kasturirangan Chairman, Council of Indian Institute of Science Bangalore	Member	<i>Ex-officio</i> <u>[Section 31(2) (f)]</u>
Prof. P. Balaram Director, Indian Institute of Science, Bangalore	Member	<i>Ex-officio</i> <u>[Section 31(2) (g)]</u>
Shri Sumit Bose Secretary, Department of Expenditure Ministry of Finance	Representative of the Ministry of Finance	- do -
Shri J. Satyanarayana Secretary, Dept. of Information Technology	Member	<u>- do -</u>
Dr. S.S. Mantha, Chairman, All India Council for Technical Education	Member	<u>[Section 31(2) (i)]</u>
Prof. C.N.R.Rao, Chairman Scientific Advisory Council to the Prime Minister	Member (term upto 05.09.2012)	<u>[Section 31(2) (j)]</u>
Prof. C.S. Seshadri Director, Chennai Mathematical Institute	- do -	- do -
Prof. Sabyasachi Bhattacharya Ex-Director, Tata Institute of Fundamental Research, Mumbai	- do -	- do -
Dr. Kota Harinarayan Chairman, Research Council of Central Scientific Instruments Organization, National Aerospace Laboratories, Bangalore	- do -	- do -
Shri Tarun Das Chief Mentor, Confederation of Indian Industry, Gurgaon	- do -	- do -
Shri Ashok Thakur, Secretary (HE), Ministry of Human Resource Development, Deptt. of Higher Education	Secretary, IIT Council	<u>[Section 31(3)]</u>

Board of Governors

	Name & Address	Position
1.	Dr. Shiv Nadar Chairman,BoG, IIT Kharagpur & HCL Technologies Ltd 1-10/11, Sector 3, Noida 201301	Chairman
2	Ms. Vibha Puri Das Secretary(HE), Government of India Ministry of Human Resource Development Department of Higher Education Shastri Bhawan, New Delhi -110115	Member
3	Dr. Srikumar Banerjee DAE Home Bhabha Chair Professor Room No. A 419, 4 th Floor Central Complex Bhabha Atomic Research Centre, Trombay Mumbai – 400085	Member
4	Prof. T. P. Singh Head of the Department (Bio-Physics) All India Institute of Medical Sciences (AIIMS) Ansari Nagar New Delhi	Member
5	Prof. B. B. Bhattacharya Prof. of Economics A-44 Sarve Sanjhi Apts.. Plot No.8, Sector 9 Dwarka, New Delhi 110077	Member
6	Dr. T. Ramasami Secretary, Dept. of Science and Technology, Technology Bhawan New Mehrauli Road New Delhi	Member
7	Shri Sandipan Chakravorty Managing Director, Tata Steel Processing & Distribution Ltd. 43, Chowringhee Road, Kolkata 700071	Member
8	Prof. Prem Kumar Kalra Director, IIT Rajasthan Camp Office : Dept. of Computer Science & Engineering MBM Engineering College Jodhpur, Rajasthan	Member
9	Prof. N. Balakrishnan Professor, Dept. of Aerospace Engineering & Associate Director Indian Institute of Science Bangalore - 560012	Member

10	Shri Tamal Dasgupta Managing Director West Bengal Electronics Industry Development Corporation Ltd.(Webel) Webel Bhavan, Block EP & GP, Sector V, Salt Lake, Kolkata - 700091	Member
11	Prof. D. Acharya Director IIT Kharagpur	Member
12	Prof. R. N. Datta (up to 31-12-2011) Dept. of Architecture & Regional Planning IIT Kharagpur	Member
13	Prof. N. R. Mandal (wef 1-1-2012) Dept. of Ocean Engg. & Naval Architecture IIT Kharagpur	Member
14	Prof. P. K. J. Mohapatra (up to 31-12-2011) Dept. of Industrial Engineering & Management IIT Kharagpur	Member
15	Prof. S. K. Satsangi (wef 1-1-2012) Dept. of Ocean Engg. & Naval Architecture	Member
16	Registrar IIT Kharagpur	Secretary

Finance Committee

	Name and Address	Position
1.	Dr. Shiv Nadar Chairman,BoG, IIT Kharagpur & HCL Technologies Ltd 1-10/11, Sector 3, Noida 201301	Chairman
2	Ms. Vibha Puri Das Secretary(HE), Government of India Ministry of Human Resource Development Department of Higher Education Shastri Bhawan, New Delhi -110115	Member
3	Additional Secretary & Financial Adviser Government of India Ministry of Human Resource Development Department of Higher Education Shastri Bhawan New Delhi – 110115	Member
4	Shri Tamal Dasgupta Managing Director West Bengal Electronics Industry Development Corporation Ltd.(Webel) Webel Bhavan, Block EP & GP, Sector V, Salt Lake, Kolkata - 700091	Member
5	Prof. D. Acharya Director, IIT Kharagpur	Member
6	Prof. R.N. Datta (up to 31-12-2011) Dept. of Architecture & Regional Planning IIT Kharagpur	Member
7	Prof. S. K. Satsangi (wef 1-1-2012) Dept. of Ocean Engg. & Naval Architecture IIT Kharagpur	Member
8	Registrar IIT Kharagpaur	Secretary

Administrative Heads

Director	Prof. Damodar Acharya
Deputy Director	Prof. A.K. Majumdar
Registrar	Dr. D. Gunasekaran (on leave) Dr. T.K. Ghosal (officiating)

Deans

Undergraduate Studies	Prof. S. K. Som
Postgraduate Studies & Research	Prof. P. K. J. Mohapatra
Faculty	Prof. Amit Basak
Planning & Coordination	Prof. B. K. Mathur
Sponsored Research & Industrial Consultancy	Prof. P. P. Chakrabarti
Students' Affair	Prof. Souvik Bhattacharyya
Continuing Education	Prof. Somnath Sengupta
Alumni Affairs & International Relations	Prof. Amit Patra
Vinod Gupta School of Management	Prof. A. Tripathy

Head of Departments

Aerospace Engineering	Prof. K. P. Sinha mahapatra		
Agricultural & Food Engineering	Prof. Rajendra Singh	Upto	31.08.2011
	Prof. P. B. S. Bhadoria	From	01.09.2011
Architecture & Regional Planning	Prof. B. K. Sengupta	Upto	31.07.2011
	Prof. Jaydip Barman	From	01.08.2011
Biotechnology	Prof. Amit K. Das		
Chemical Engineering	Prof. Amar Nath Samanta	Upto	31.12.2011
	Prof. N. C. Pradhan	From	01.01.2012
Chemistry	Prof. D. R. Mal		
Civil Engineering	Prof. L.S. Ramachandra		
Computer Science & Engineering	Prof. Jayanta Mukhopadhyay		
Electrical Engineering	Prof. Jayanta Pal		
Electronics & Electrical Communication Engineering	Prof. C.K. Maiti		
Geology & Geophysics	Prof. Biswajit Mishra		
Humanities & Social Sciences	Prof. K. B. L. Srivastava		
Industrial Engineering & Management	Prof. B. Mohanty		
Mathematics	Prof. P. D. Srivastava		
Mechanical Engineering	Prof. Ranjan Bhattacharyya		
Metallurgical & Materials Engineering	Prof. Siddhartha Das		
Mining Engineering	Prof. S. K. Das	Upto	16.10.2011
	Prof. K. U. M. Rao	From	17.10.2011
Ocean Engineering & Naval Architecture	Prof. O. P. Sha		

Physics & Meteorology Prof. S. K. Ray

Head of Centers

Advanced Technology Development Centre	Prof. P. P. Chakrabarti		
Centre for Educational Technology	Dr. Bani Bhattacharyya		
Centre for Oceans, Rivers, Atmosphere and Land Sciences	Prof. D. Sen		
Cryogenic Engineering	Prof. V. V. Rao		
Material Science	Prof. S. Ram		
Reliability Engineering	Prof. V. N. Achutha Naikan Prof. Biswajit Mahanty	Upto From	25.03.2012 26.03.2012
Rubber Technology	Prof. G. B. Nando		
Rural Development	Prof. P. B. S. Bhadoria		
Computer & Informatics	Prof. Prabir Kumar Biswas		
Administrative Computer Service Support Centre	Prof. R.N. Banerjee		

Head of Schools

G. S. Sanyal School of Telecommunications	Prof. Debasish Datta		
School of Information Technology	Prof. Jayanta Mukhopadhyay		
School of Medical Science & Technology	Prof. Pranab Kumar Dutta		
Vinod Gupta School of Management	Prof. K. K. Guin		
Rajendra Mishra School of Engineering Entrepreneurship	Prof. D. Biswas		
Rajiv Gandhi School of Intellectual Property Law	Prof. Indrajit Dube		
Ranbir and Chitra Gupta School of Infrastructure Design and Management	Prof. K. S. Reddy Prof. U. K. Banerjee	Upto From	31.08.2011 01.09.2011
School of Water Resources	Prof. S. N. Panda		

Chairmen & Vice-Chairmen

JEE 2011 - Chairman	Prof. A. R. Mohanty
JEE 2011 - Vice-Chairman	Prof. K. U. M. Rao
GATE 2011 - Chairman	Prof. S. K. Barai
GATE 2011 – Vice-Chairman	Prof. Debasis Deb
JAM 2011 - Chairman	Prof. Saibal Gupta
JAM 2011 - Vice-Chairman	Prof. G. P. Rajasekhar
Central Library	Prof. S. Sahu
Hall Management Committee	Prof. A. Goswami
Chairman, CWISS	Prof. P. K. Das
CRF (Materials Division)	Prof. Rahul Mitra
CRF (Life Science Division)	Prof. A. K. Ghosh
Rajbhasha Vibhag	Prof. U. C. Gupta
Nehru Museum of Science &	Prof. D. Sen

Technology
Kalpana Chawla Space Technology
Cell (KCSTC) Prof. Somnath Sengupta

Professors-in-Charge

B C Roy Technology Hospital	Prof. A. Mitra		
	Prof. S. Bhattacharyya		
Examinations	Prof. Biswajit Maiti		
Training & Placement	Prof. S.K. Srivastava		
General Time Table	Prof. D. K. Pratihar		
Convocation-2011	Prof. P. K. J. Mohapatra		
Institute Information Cell	Prof. B. K. Mathur		
President, Technology Students Gymkhana	Prof. Manish Bhattacharjee		
Refrigeration & Air Conditioning	Prof. Sukanta Dash	Upto	31.07.2011
	Prof. M. Ramgopal	From	01.08.2011
Horticulture	Prof. C.K. Mukherjee		
Water Works	Prof. A. K. Gupta		
Civil Works (Construction and Maintenance)	Prof. N. Dhang		
Electrical Works	Prof. D. Das		
Telecommunication	Prof. Raja Datta		
Institute Guest Houses	Prof. B. K. Sengupta		
Intellectual Property Right & Industrial Relation	Prof. S. K. Barai		

General

Librarian	Dr. B. Sutradhar
Public Information Officer	Dr. Anathbandhu Patra
Head, B.C. Roy Technology Hospital	Dr. B. Mishra
Superintending Engineer (Civil)	Shri T. K. Mukherjee
Executive Engineer (Civil)	Shri S. K. Biswas
Executive Engineer (Electrical)	Shri Sabyasachi Ghosh
	Shri Mahesh Kumar
	Shri D.K. Chakraborty

Deputy Registrars

Stores and Purchase	Shri Atul Prakash Trivedi
Finance & Accounts	Dr. Tapan Kumar Ghosal

Building and Works Committee

1	Prof. D. Acharya Director, IIT Kharagpur	Chairman
2	Shri S. K. Biswas Superintending Engineer & Circle Manager Midnapore Distribution Circle West Bengal State Electricity Distribution Co. Ltd. (WBSEDCL) 190, S. K. Bose Road Paschim Medinipur - 721101	Member
3	Shri Swadesh Kumar Chakraborty Superintending Engineer South Western Circle Public Works Department (PWD) Saheed Mangal Pandey Sarani Paschim Medinipur PIN – 721101	Member
4	Head Department of Civil Engineering IIT Kharagpur	Member
5	Head Department of Electrical Engineering IIT Kharagpur	Member
6	Head Dept. of Architecture & Regional Planning IIT Kharagpur	Member
7	Registrar IIT Kharagpur	Secretary

List of Senate Members as on 31st March, 2011

Director -
Deputy Director -

Prof. D. Acharya
Prof. A. K. Majumdar

Department of Aerospace Engineering

Prof. P.K. Datta

Prof. G. Bandyopadhyay
Prof. N. Singh
Prof. K. P. Sinhamahapatra
Prof. B. N. Singh

Department of Agricultural & Food Engineering

Prof. K.P. Pandey
Prof. B.C. Mal (Lien up to 10.02.2015)
Prof. R. Singh
Prof. V.K. Tewari
Prof. K.N. Tiwari
Prof. R.K. Panda
Prof. R. Banerjee
Prof. S.K. Das
Prof. P.B.S. Bhadoria
Prof. B.C. Ghosh
Prof. A. K. Datta
Prof. H. N. Mishra
Prof. N. S. Raghuwanshi
Prof. S. N. Panda
Prof. T. K. Goswami
Prof. Nirupama Mallik
Prof. Madan Kumar Jha
Prof. Hifjur Raheman
Prof. S. Dutta Gupta

Department of Architecture & Regional Planning

Prof. R.N. Datta
Prof. B.K. Sengupta
(Re-employment up to 30.06.2014)
Prof. U.K. Banerjee
Prof. Jaydip Barman
Prof. S. Chattopadhyay

Department of Biotechnology

Prof. S.C. Kundu
Prof. D. Das
Prof. S.H. Dey
Prof. A.K. Ghosh
Prof. A.K. Das
Prof. T. K. Maiti
Prof. Sudip Kumar Ghosh

Centre for Educational Technology

Prof. A. K. Ray
(Visiting Professor up to 20.02.2013)
Prof. B. Bhattacharya

Department of Chemistry

Prof. D. Mal
Prof. T.K. Sarkar
Prof. J.K. Roy
Prof. P.K. Chattaraj
Prof. T. Pathak
Prof. T. S. Pal
Prof. A. Basak
(Dean, Faculty)
Prof. D. Ray
Prof. M. Bhattacharjee
Prof. S. K. Srivastava
Prof. Nilmoni Sarkar
Prof. Swagata Dasgupta
Prof. Srabani Taraphder
Prof. Sanjoy Bandyopadhyay
Prof. Saumen Hajra
Prof. Joykrishna Dey
Prof. P. Pramanik
(Re-employment up to 30.06.2014)

Department of Civil Engineering

Prof. Dhruvajyoti Sen
Prof. S.K. Bhattacharyya, (Lien up to 2.8.2014)
Prof. K.S. Reddy
Prof. L.S. Ramachandra
Prof. S. Dey
Prof. D.K. Baidya
Prof. N. Dhang
Prof. S. K. V. Barai
Prof. V. R. Desai
Prof. S. P. Dasgupta
(Visiting Professor up to 30.06.2013)
Prof. Ashok Kumar Gupta
Prof. M. M. Ghangrekar
Prof. Baidurya Bhattacharya

Department of Computer Science & Engineering

Prof. A. Pal
Prof. A.K. Majumdar
(Deputy Director)
Prof. S. Ghose

Prof. P.P. Chakraborti, Dean (SRIC)
Prof. A. Basu
Prof. I. Sengupta
Prof. J. Mukhopadhyay
Prof. S.P. Pal
Prof. R. Mall
Prof. D. Sarkar
Prof. D. Roy Chowdhury
Prof. Pallab Dasgupta
Prof. Rajeev Kumar (Under suspension)
Prof. Sudeshna Sarkar
Prof. Chittaranjan Mandal
Prof. Arobinda Gupta
Prof. Partha Pratim Das
(On contract basis up to 31.05.2012)

Department of Chemical Engineering

Prof. D. Mukherjee
Prof. A.N.Samanta
Prof. S. Dasgupta
Prof. N. C. Pradhan
Prof. S. De
Prof. Gargi Das
Prof. Sudarsan Neogi
Prof. Jayanta Kumar Basu
Prof. Goutam Kundu

Cryogenic Engineering Centre

Prof. S.K. Sarangi
(Lien from 25.05.11 to 31.01.2014)
Prof. S.S. Bandyopadhyay
Prof. T.K. Dey
Prof. V. Rao Vutukuru
Prof. K. Chowdhury

Department of Electrical Engineering

Prof. S.K. Das
Prof. A.K. Sinha
Prof. J. Pal
Prof. A. Patra, Dean AA & IR
Prof. N.K. Kishore
Prof. A. Barua
Prof. Goshaidas Ray
Prof. S. Mukhopadhyay
Prof. S. Sen
Prof. P.K. Dutta, Head SMST
Prof. B.M. Mohan
Prof. Debapriya Das
Prof. Sabyasachi Sengupta
Prof. T. K. Bhattacharya
Prof. Chandan Chakraborty
Prof. Srinivasu Maka
Prof. Ashok Kumar Pradhan
Prof. Debaprasad Kastha
Prof. Aurobinda Routray

Department of Electronics & Electrical Communication Engineering

Prof. A. Chakraborty, (Lien up to 01.07.2015)
Prof. D. Dutta
Prof. Ajoy Kr. Roy, (Lien up to 28.2.2013)
Prof. S. Banerjee
Prof. C.K. Maiti
Prof. V.R.K. Ratnam, (Lien up to 04.02.2015)
Prof. P.K. Biswas
Prof. S. Sengupta, Dean CE
Prof. M. Chakraborty
Prof. Ramesh Garg
(Re-employment up to 31.10.2013)
Prof. Sant Sharan Pathak
Prof. Subrata Sanyal
Prof. D. Biswas
Prof. B. K. Sarkar
Prof. K. K. Bandyopadhyay
(On contract up to 28.12.2012)
Prof. Santanu Chattopadhyay

Department of Mathematics

Prof. A. R. Roy
Prof. P.D. Srivastava
Prof. A. Sarkar
Prof. U.C. Gupta
Prof. M.P. Biswal
Prof. D. K. Gupta
Prof. V. K. Jain
Prof. S. Bhattacharyya
Prof. A. Goswami
Prof. Somesh Kumar
Prof. Rajni Kant Pandey
Prof. G. P. Raja Sekhar

Department of Mechanical Engineering

Prof. B. Maiti
Prof. A. Mukherjee
(Re-employment up to 30.06.2014)
Prof. A. Chatterjee
Prof. S. K. Som, Dean UGS
Prof. V.V. Satyamurty
Prof. A.K. Chattopadhyay
Prof. S. Bhattacharya
Prof. R. Bhattacharyya
Prof. S.K. Dash
Prof. P.K. Das
Prof. A.R. Mohanty
Prof. S.N. Bhattacharyya
Prof. R.N.Maiti
Prof. S. Paul
Prof. M.C. Ray
Prof. A. K. Nath
Prof. S. Roy
Prof. D. K. Pratihari
Prof. S. Chakraborty

Prof. A. Dasgupta
Prof. A. Guha
Prof. S. K. Roy Chowdhury
(Visiting Faculty up to 30.06.2014)
Prof. M. Ramgopal
Prof. Ashimava Roy Choudhury

Department of Metallurgical & Materials Engineering

Prof. M. Chakraborty, (Lien up to 19th May 2014)
Prof. R. N. Ghosh
(Chair Prof. Steel Tech. Centre up to 31.01.2014)
Prof. S. K. Pabi
Prof. M.M. Godkhindi
(Visiting Professor up to 31.12.2014)
Prof. K.K. Ray
Prof. N. Chakraborty
Prof. I. Manna, (Lien up to 28.02.2015)
Prof. Siddhartha Das
Prof. Sanat Kr. Roy
(Re-employment up to 30.06.2014)
Prof. K. Das
Prof. Gour Gopal Roy
Prof. Rahul Mitra
Prof. P.K. Sen
(Chair Prof. in Steel Tech. Centre up to 31.12.2013)
Prof. Jyotsna Dutta Majumdar
Prof. Shiv Brat Singh

Department of Geology & Geophysics

Prof. S.K. Nath
Prof. B. Mishra
Prof. A.K. Gupta, (Lien upto 02.09.2015)
Prof. D. Sengupta
Prof. A. Bhattacharya
Prof. S. Tripathy, (Lien up to 14.02. 2013)
Prof. Anindya Sarkar
Prof. Subhasish Das
Prof. M. K. Panigrahi
Prof. S. K. Bhowmik
Prof. Saibal Gupta
Prof. A. K. Bhattacharya
Prof. S. P. Sharma
Prof. Manish A Mamtani

GS Sanyal School of Telecommunication

Prof. S. Chakraborti

Department of Humanities & Social Sciences

Prof. (Ms.) B. Chatterjee
Prof. P. Basu
Prof. H.R. Tewari
Prof. D. Suar
Prof. A Gera Roy

Prof. K.B.L. Srivastava
Prof. S. Chopra Chatterjee
Prof. V.N. Giri
Prof. Chhanda Chakraborti
Prof. Priyadarshi Patnaik

Department of Industrial Engineering & Management

Prof. S. Srinivasan
Prof. P.K.J. Mohapatra
Prof. R.N. Banerjee
Prof. S. Sahu
(Re-employment up to 31.12.2012)
Prof. D. Acharya, Director
Prof. B. Mohanty
Prof. P.K. Roy
Prof. M. K. Tiwari

Materials Science Centre

Prof. D. Bhattacharya
Prof. C. K. Das
Prof. B. Adhikari
Prof. S. Ram
Prof. Susanta Banerjee

Department of Mining Engineering

Prof. S.S. Bhamidipati
Prof. A. Bhattacharya
Prof. K.U.M. Rao
Prof. S. K. Das
(Lien from 26.09.2011 to 25.09.2016)
Prof. K. Pathak
Prof. J. Bhattacharyya
Prof. S.K. Mukhopadhyay
(Re-employment up to 31.12.2013)
Prof. Samir Kumar Pal
Prof. Debasis Deb

Department of Ocean Engineering & Naval Architecture

Prof. S.C. Misra, (Lien up to 30.09.2013)
Prof. S.K. Satsangi
Prof. N.R. Mandal
Prof. D. Sen
Prof. O.P. Sha
Prof. Trilochan Sahoo

Centre for Ocean, Rivers, Atmosphere & Land Sciences

Prof. D. Sen, Head CORAL

Department of Physics & Meteorology

Prof. N. Chandra
(Re-employment up to 31.12.2012)
Prof. B. K. Mathur, Dean, P&C
Prof. S. L. Sharma
Prof. S. Veeturi, (Lien up to 30.11.2012)
Prof. S. K. Ray
Prof. A. Taraphder
Prof. K. Kumar
Prof. Somnath Bharadwaj
Prof. Sayan Kar
Prof. Anushree Roy
Prof. Prasanta Kumar Datta

**Rajiv Gandhi School of Intellectual Property
Law**

Prof. S. V. Joga Rao, Dean RGSOIPL

Reliability Engineering Centre

Prof. V.N.A. Naikan

Rubber Technology Centre

Prof. A. K. Bhowmick, (Lien up to 12.07.2014)
Prof. G. B. Nando
Prof. D. Khastgir
Prof. T. K. Chaki

School of Information Technology

Prof. Shamik Sural

School of Medical Science & Technology

Prof. S. K. Guha
Prof. A. K. Bardhan

Vinod Gupta School of Management

Prof. G. Sinha
(EOL up to 31.03.2013)
Prof. K. K. Guin
Prof. P. Mukherjee
Prof. Prabina Rajib

Central Library

Dr. B. Sutradhar, Librarian

Students Representative

Mr. Prateek Agarwal – Vice President
Mr. Akshat Verma – UG Representative
Mr. Rahul Raghavan – PG Representative
Mr. Abhimanyu Kar – RS Representative

Secretary : Dr. T. K. Ghosal, Registrar (Officiating)

Annual Report 2011 – 2012

IIT Kharagpur continued taking new strides towards emerging directions to further the growth and dissemination of scientific and technological knowledge during the year 2011-2012. Brief outlines of the major activities of the Institute during this period are highlighted.

The Diamond Jubilee Year

On the occasion of the Diamond Jubilee year, IIT Kharagpur has started many new initiatives. It is heartening to note that Government of India gave two major grants during the Diamond Jubilee for the Institute. Rs.200 crore special grant. It is being augmented by Rs.94 crore from donations and grants from alumni and well wishers. From this grant the following four interdisciplinary schools are being created.

- School of Energy Science and Engineering.
- School of Bioscience.
- School of Nanoscience and Technology.
- School of Environmental Science and Engineering.

The buildings for Energy Science and Bioscience are getting ready. Temporary locations for the remaining two have been identified. Faculty groups have been formed. Laboratories are being developed.

School of Engineering Design and Manufacturing and School of Engineering Entrepreneurship are operational. Research facilities are being created. Renovation and augmentation of the ageing infrastructure are in progress.

The Institute recently got the approval for Rs.230 crore 400 bed multispeciality hospital. The hospital initially will support Medical Science and Technology Education and Research. Once the hospital becomes operational, it will pave the way for the Institute's entry to medical education through Dr. Bidhan Chandra Roy Institute of Medical Science and Research. Biomedical Research and research on innovative healthcare delivery initiatives will be taken up. The hospital will be augmented to 750 beds.

The Institute is particularly thankful to the support and encouragement of our Hon'ble HRD Minister Shri Kapil Sibal and the then Finance Minister and the current President of India, Shri Pranab Mukherjee for these new initiatives. But for them, venturing of the Institute to new and untrodden path would not have been possible.

To commemorate this occasion, several books and monographs have been published. They are:

- *“Sixty Years in the Service to the Nation: An Illustrated History of IIT Kharagpur.* by Dharma Vir, D Sen, P Patnaik, A K Hazra. Published by Orient BlackSwan, India”

- “*Sir Jnan Chandra Ghosh: The Architect of IIT Kharagpur*” by P T Nair. Published by IIT Kharagpur

These were released by the Hon'ble Prime Minister of India, Dr. Manmohan Singh at the 57th convocation held on 22nd August, 2011.

As a part of new initiative during the Diamond Jubilee Year, the faculty has joined hands to prepare the IIT Kharagpur Research Monograph Series to be published by CRC press. The Series aims at collating research and developments in various branches of science and engineering in a coherent manner. The Series is expected to be a source reference to fundamental research as well as to provide directions to young researchers. The presentations are in a format that these can serve as standalone texts or reference books. The specific objective of this research monograph series is to encourage the eminent faculty and coveted alumni to spread and share knowledge and information to the global community for the betterment of mankind.

During the diamond jubilee year, several renowned personalities including Nobel Laureates have delivered Institute Lectures. They are:

- Dr. Srikumar Banerjee
- Shri Shri Ravi Shankar
- Prof. Ashoke Sen
- Prof. Raj Reddy
- Prof. Sir James Mirrlees (Nobel Laureate)
- Prof. Sir Harry Kroto (Nobel Laureate)
- Prof. Dan Peter McKenzie
- Prof. Sir Michael Berry
- Prof. Andrew Hamilton

Academic Programmes

The Institute has been very sensitive to the human resource development of the country and to that end continues initiating new academic programs. In recent years we have introduced several new academic programmes. These include :

- M.Tech in Agricultural Biotechnology in the Department of Agricultural and Food Engineering
- M. Arch in Sustainable Built Environments is being taken up in the Department of Architecture and Regional Planning
- Dual-degree programme on Quality Engineering design and Manufacturing coordinated by the Department of Industrial Engineering and Management
- M. Tech programme on Embedded Software and Control coordinated by the Advanced Technology Development Centre
- M.Tech. Programme in Water Management in the School of Water Resources
- M.Tech programme in Infrastructure Design and Management in the Ranbir and Chitra Gupta School of Infrastructure Design and Management.
- Dual Degree Postgraduate programme in Financial Engineering involving various departments.

- 3-Year Executive MBA (EMBA) Programme in Kolkata and Bhubaneswar Campus introduced by the Vinod Gupta School of Management.
- The Institute plans to introduce joint M.Sc.-Ph.D. programme in the School of Bioscience and in the School of Nano Science and Technology from the next academic year.

The Institute is presently offering B.Tech (Hons) programmes in fifteen different branches of engineering, a B.Arch. (Hons.) programme in Architecture, sixteen Dual Degree programmes, six Integrated M.Sc. programmes, four two-year Joint M.Sc.-Ph.D. programmes, fifty postgraduate degree programmes leading to Joint M.Tech. / MCP-Ph.D., MBM, MHRM and MMST degrees besides an LLB degree. The curricula and syllabi of these programmes are constantly updated to meet the needs of the changing world with focus on quality and excellence.

A noteworthy recent addition is the implementation of the ERP System. All academic issues including faculty recruitment, students registration, enrollment, course allocation, examination results and students feedback are now available on-line through this system.

57th Convocation

Fifty-seventh Annual Convocation of the Institute was held on August 22, 2011. Shri Manmohan Singh, Hon'ble Prime Minister of India was the Chief Guest. The convocation conferred degrees to **1957** graduates that include 226 Ph.D., 29 MS, 692 M.Tech., 24 MCP, 84 MBA, 08 MMST, 19 LLB, 254 Dual Degree, 380 B.Tech. (Hons), 25 B.Arch. (Hons.) and 216 M.Sc. degree recipients. Following students were the recipients of Institute Gold Medals for their academic excellence and all round performance in the year 2010-2011.

- Shri Gautam Kumar of the Department of Computer Science & Engineering is the recipient of **President of India Gold Medal** for the best academic performance among the outgoing B.Tech. (Hons.) and B.Arch. (Hons.) students.
- Shri Chinmay Anand Misra of the Department of Mechanical Engineering has won the **Dr. Bidhan Chandra Roy Memorial Gold Medal** for the best all-round performance among the B.Tech. (Hons.) and B.Arch.(Hons.) outgoing students.
- **The Prime Minister of India Gold Medal** for the best academic performance among the Dual degree and Integrated M.Sc. outgoing students goes to Shri Aurosish Mishra of the Department of Computer Science & Engineering.
- **Dr. Jnan Chandra Ghosh Memorial Gold Medal** for the best all-round performance among the outgoing Dual Degree and Integrated M.Sc. students is awarded to Shri Arkosnato Neogy of the Department of Electronics & Electrical Communication Engineering.
- Shrimati Sharmila Pandey of the Department of Chemistry has won the **Professor Jagadish Chandra Bose Memorial Gold Medal** for the best academic performance among the outgoing students of all 2-year M.Sc. courses in the Science Disciplines.

- Shri B. Praveen of the Department of Ocean Engineering & Naval Architecture is the recipient of **The Director's Gold Medal** for the best academic performance among the students completing M.Tech. and MCP courses.

The Senate and the Board of Governors of the Institute conferred the highest honour, the degree of Doctor of Science (Honoris Causa), on the following distinguished personalities:

- Dr. R. Chidambaram in recognition of his outstanding contributions in the fields of Nuclear Technology, Neutron Crystallography, High Pressure Physics, Materials Science.
- Shri Sunil Bharti Mittal in recognition of being a doyen of the Indian telecom industry and one its chief architect.
- Shri Satyanarayan Gangaram Pitroda, popularly known as Sam Pitroda regarded as the architect of India's communication revolution and as the policy maker in India's Information Infrastructure and Innovations.
- Professor M. S. Swaminathan who has been acclaimed for his leadership for the green revolution movement in agriculture and is regarded as a living legend who will go into the annals of history as a world scientist of rare distinction.

The Institute also conferred D.Sc. (Honoris Causa) to Dr. Brijmohan Lall Munjal, an outstanding entrepreneur and architect of now famous Hero Honda Group. Dr. Munjal is a D.Sc. (Honoris Causa) Awardee in the 54th convocation.

In the convocation the **Distinguished Alumnus Award** were conferred on:

- Professor Ramesh Kumar Agarwal, The William Palm Professor of Engineering, Washington University
- Professor Lallit Anand, the Rohsenow Professor of Mechanical Engineering at MIT
- Shri Debnarayan Bhattacharya, a business leader heading Global Metals business of Aditya Birla Group
- Dr. Samit Kumar Bhattacharyya, an internationally recognized expert in the field of nuclear technology and applications
- Professor Kalyanmoy Deb, Professor of Mechanical Engineering and Director of Genetic Algorithms Laboratory of IIT Kanpur
- Dr. Pradip Kumar Dutta, Vice President of Synopsys Inc. and Managing Director of its wholly owned subsidiary, Synopsys (India) Private Limited
- Professor R. P. Gokarn, a former Professor of Ocean Engineering and Naval Architecture of this Institute
- Professor Mahinder Kumar Jain, a leader in the field of Computational Fluid Mechanics and Numerical Solution of Ordinary and Partial Differential Equations

- Shri Prasad R. Menon, a leader in the chemical and power sector industries
- Professor Bhubaneswar Misra, Professor of Computer Science, Mathematics and Cell Biology at New York University
- Professor Ned Mohan, Oscar A. Schott Professor of Power Electronic Systems, University of Minnesota
- Dr. Satyendranath Mukherjee, Chief Scientist and Senior Director at Philips Research North America, New York
- Shri S. C. Mukhopadhyay, Acharya of Dev Sangha, a spiritual centre located at Deoghar, Jharkhand
- Professor Bahadur Chand Nakra, Professor of Mechanical Engineering at IIT Delhi
- Professor Braj Bhushan Pandey, Emeritus Professor of the Department of Civil Engineering of this Institute
- Shri C. N. Raghavendran, Architect and Partner of M/s C. R. Narayana Rao, a firm of Architects and Engineers based in Chennai
- Professor P. K. Rajagopalan, a former Professor of Electrical Engineering of this Institute
- Captain N. S. Mohan Ram, Advisor in TVS Motor Company Limited,
- Prof. Jammi Srinivasa Rao, Chief Scientific Officer, Altair Engineering, Bangalore
- Shri Nrupender Rao, Chairman of Pennar Group of Companies
- Dr. Amitava Hirendranath Roy, President and Chief Executive Officer of International Fertilizer Development Center
- Professor Kaushik Roy, The Roscoe H. George Chair Professor of Electrical and Computer Engineering, Purdue University
- Professor Biswapriya Sanyal, the Ford International Professor of Urban Development and Planning at MIT.

Research and Development Activities

The following are some of the highlights of research and development activities being carried out by our Departments, Centers and Schools

- **Aerospace Engineering:** Composite and Smart Structures Structural Dynamics and Aeroelasticity Design and Development of MR-fluid damper, Development of reconfigurable autonomous air vehicle. Lunar gravity modeling, topography modeling and orbit determination for the Chandrayaan-I.
- **Agricultural and Food Engineering:** Application of GIS in both command area and watershed management, Neural network in hydrology, Ballast management of agricultural tractors, Biofiltration Technology, Bio-fuels from

tree-based oils, Climate change analysis and applications in water and crop management, Design, development and field evaluation of a small power tractor, Design and development of slip meter for two-wheel drive tractors

- **Architecture and Regional Planning:** Design Simulation and Intelligent Architecture, Building Automation and Management Systems, Sustainable Development, Energy Efficient Design, Spatial Environmental Planning, Eco-sensitive and Green Architecture, Indian Traditional Architecture and Heritage studies, Infrastructure and spatial Planning: Transportation Planning, Traffic Engineering and Management, Hazards and Disaster Mitigation and Management,
- **Biotechnology:** Production of an anti-tumor biosurfactant, Alkaline lipase, Biodiesel; Bioreactor strategies for the enhanced production of probiotic endospores for Nutraceutical formulations and their clinical evaluation; Molecular characterization of metronidazole activation and deactivation pathways in *Entamoeba histolytica*; Structural and functional studies of protein from *M. tuberculosis* and *S. aureus* aiming at drug and inhibitor design; Biomicrofluidics and Biochip development, Microbial fuel cell.
- **Chemical Engineering:** Heterogeneous reactions with application to chemical process development; Utilization of non-edible oils for manufacturing of value-added chemicals; Steam reforming of petroleum feedstock in mini- and micro-reactors for production of hydrogen; Advanced separation processes involving membranes with emphasis on water purification, dye removal, effluent treatment, etc.; Development of innovative catalysts from fly ash for organic chemical synthesis (alkylation, isomerisation etc.); Plasma assisted surface modification for chemical engineering applications.
- **Chemistry:** DNA cleaving agents, bioactive natural products, Isolation and characterization of an angiogenic protein; Supramolecular chemistry; Development of highly selective and green methodologies; Micellar, zeolite, and bimetallic catalysts, aqueous medium polymerization; Development of integrated biosensing platform clinical and environmental applications; metal nanoparticles, nanocrystalline ferrites, ceramics and composites; Materials for high temperature and superconducting applications.
- **Civil Engineering:** Microbial Fuel Cells, Onsite treatment of domestic sewage from small community, Studies on granulation in UASB reactor treating low strength wastewater to enhance efficiency of the reactor, Water quality and health assessment, Nanoparticle synthesis, their characterization and application; Photodegradation of organic pollutants; Removal of Arsenic from ground water using low cost adsorbent; Erosion control and mechanical stabilization of soils using natural fibers, ground improvement.
- **Computer Science and Engineering:** Artificial Intelligence, Bioinformatics, Combinatorial and Computational Geometry, Computer Graphics, Computer Networks, Cryptography, Databases, Embedded Systems, Fault Tolerant Computing, Formal Verification, Image Processing and Computer, Vision, Mobile Computing, Multimedia, Natural Language Processing, Object Oriented Design Tools, Parallel and Distributed Processing, Real Time

Systems, Software Engineering, Speech Recognition and Synthesis, VLSI Design and CAD tools, Quantum Information and Computation

- **Electrical Engineering:** Magnetic Levitation, Superconducting magnetic energy storage, Variable frequency AC-Drives, Simulation of power electronic circuits, Resonant Converters, Design of integrated circuits for Power Management, Nonlinear phenomena in Power Electronics, Automotive Electronics, Diagnostic of drives, Neuro-fuzzy controllers, Control of chaotic systems, Attitude control of satellites and launch vehicles, Nonlinear dynamics, Wind turbines, Wavelet Application to Power system Transients, Neural Net Application to Partial Discharge Phenomenon, Testing of analog and digital VLSI circuits,
- **Electronics and Electrical Communication Engineering:** Embedded system-on-chip solution for an adaptive intelligent biomedical system, low cost Doppler Ultrasonography system, non-invasive blood glucose monitor based on laser induced photo acoustic spectroscopy, early detection of oral cancer via image processing, designing QPSK demodulator and a 9-channel Transmultiplexer for Space application; optical networks and their analytical modeling, Development of a RISC DSP for Modems, VLSI Architecture for low bit rate Video Coding, Medical Image Processing, Gesture Recognition from Video Sequences, Face recognition, Content based Retrieval of Texture Images, Fuzzy Neural Network.
- **Geology and Geophysics:** Tectonic evolution of craton – mobile belt ensembles in parts of the Indian shield; Gold mineralization in greenstone belts of Dharwar Craton; Metamorphic remobilization of massive sulphide deposits; Studies on Indian microvertebrates, Lithospheric structure across Himalaya, Deformation at Collisional boundaries, Stable isotopes in Himalayan foreland sediments; Paleogene climate of Kutch, Rajasthan, Seismic Hazard assessment and microzonation in the NE India and metropolitan cities; Studies on Indian monsoon and paleoclimate studies of the Indian subcontinent and paleoceanography of the Indian Ocean.
- **Humanities and Social Sciences:** Quantitative economics, Financial economics, Economics of growth, Industrial economics, Development economics, Environmental and resource economics, Sociology of health and medicine, Brain and behavior, Visual aesthetics, Business ethics, corporate social responsibility.
- **Industrial Engineering and Management:** Operations Management: Production Planning and Inventory Control, Logistics and Supply Chain Management, E-Business, Quality Engineering and Control, Facility Layout and Design, Total Quality Management and Six Sigma. Simulation and Soft Computing: Genetic Algorithms and its variants, Heuristics, System Dynamics, Discrete Event Simulation. Work System Design: Ergonomics/Human Factors Engineering, Occupational Safety and Health Management, and Probabilistic Risk Assessment.
- **Mathematics:** Clifford Analysis, Fuzzy Mathematics, Soft Algebra, Bio Mechanics, Dynamics of Nonlinear systems, Inventory Management, Graph

Theory, Integral Equations, Cryptography, Queueing Theory, Statistical Decision Theory, Statistical Data Analysis, Compiler Design, Combinatorics, Fractional Calculus, Optimization and Theoretical Computer Science; Information and coding Theory; Cryptology.

- **Mechanical Engineering:** Design and development of expert systems in robotics, manufacturing science, medical diagnosis and others using soft computing; Bio-micro-fluidics and microscale transport processes, Transport Phenomena in Phase Change Problems; TiN hard coating by unbalanced magnetron using Physical Vapour Deposition Technique; Modelling and simulation of through-process hot steel rolling using bond graph; Model based fault detection and isolation; Prediction of fluid flow and heat transfer from wavy surfaces; Design and development of carbon dioxide based heat pump systems; Vehicle system dynamics, design of vehicle simulators
- **Metallurgical and Materials Engineering:** Corrosion Science and Technology, Extractive Metallurgy, Mechanical Metallurgy, Melting, Casting and Solidification Processing, Modeling, Simulation and Multimedia in Metallurgical Engineering, Physical Metallurgy, Powder Metallurgy, Surface Engineering, genetic algorithm for the optimization of metallurgical systems, mathematical simulation of high temperature metallurgical systems by application of computational fluid dynamics, heat and mass transfer, molecular dynamic simulation of nanostructured materials, Development of Lithium Ion Battery (LIB) Technology for applications in Electric Vehicles in India.
- **Mining Engineering:** Environment and Safety- Application of LCA, GIS and remote sensing for soil and water analysis as a part of mine closure planning; Experimental and computational fluid dynamics studies for shock loss determination in mine air flow; Biological and passive treatment of mine waste water; Investigation of soil and water contamination vis-à-vis land use changes near mining fields. Study of human behaviour related accidents in mines, Rock Mechanics / Ground Control- Finite element analysis for longwall strata control problems, and design of shield supports; Assessment of Fly ash composites as a substitute fill material for underground mine voids; Risk analysis for the safety management of coalmines; Mine Planning / Modeling; Integration of GPS and I.SAR ground deformation data over mining areas. Use of lasers for assessment of stability of dumps. Vision based semi-automatic mine navigation system.
- **Ocean Engineering and Naval Architecture:** CFD, Marine Structures, Wind-Wave Modeling, Coastal Processes, Coastal Sediment Dynamics, Hydroelasticity, Computational Weld Mechanics and Welding Technology, Experimental and Mathematical Modeling of Ship Motions, Coastal Hydrodynamics, Ship structures, Dynamics of Marine Vehicles, Wave-Structure Interactions, Marine Design and Production, Ocean Turbulence.
- **Physics and Meteorology:** Astrophysical Spectroscopy, Astrophysics, Atmospheric Sciences, Atomic and Molecular Physics, Biophysics, Condensed Matter Physics, Cosmology, Optical Imaging, Nuclear Physics, Ferroelectricity, Fiber and Integrated Optics, Optoelectronics, Gravitation and

Geometry, High Energy Physics, Hydrodynamics, Laser Physics, Nonlinear Optics, Photonics, magnetic semiconducting nanoparticles and thin films, Magnetism, Spintronics, Semiconductor Devices, Nano- and Bulk-material science, Nuclear condensed matter physics, Optoelectronics, Organic Electronics, Physics of Semiconductor Crystals and Thin Films, Quantum Many-Body Theory, String Theory.

- **Centre for Educational Technology:** 186 courses developed as a part of NPTEL phase I and II available in the LAN for internal feedback, Developing suitable pedagogical methods for various classes, Creation of Integrated Development Environment (IDE) for Generation of Pronunciation Lexicon for Indian Languages (PL-IL) in W3C Pronunciation Lexicon Standard (PLS) and Example lexicon in Hindi and Bangla Languages.
- **Centre for Ocean, Rivers, Atmosphere and Land Sciences:** Monitoring of the atmospheric surface layer characteristics during the pre-monsoon thunderstorm activity. Study of the atmospheric boundary layer dynamics during various epochs of thunderstorm activities at Kharagpur. development of a Hybrid Coordinate Ocean Model (HYCOM) for the Bay of Bengal, numerical simulation of Bay-of-Bengal Circulation Features using satellite data; Satellite Remote Sensing and GIS for various states of India as well as Land Use and Land Cover change Dynamics.
- **Cryogenic Engineering Centre:** Air Separation, Vacuum Technology.
- **Materials Science Centre:** Development and application of novel polymers, ceramics and semiconductor materials polymer modification nanoclay and carbon nanotube reinforced composites, nano-crystalline shape memory materials for biomedical applications, nano-fluids, nano ceramics for drug delivery, nano-structured oxides for ceramic gas sensor and cathode materials for lithium rechargeable batteries. MOCVD growth of InGaP epitaxial layers, quantum dots, solar cell, wide band gap materials like SiC, ZnO and nitride semiconductors and nano materials for device applications, Multiwall carbon nanotubes.
- **Reliability Engineering Centre:** Fault Diagnosis of Rotary Systems and remote monitoring system for fault diagnosis of industrial system for e-maintenance. Safety and reliability studies of nuclear power plants and missile systems.
- **Rubber Technology Centre:** Polymer composites and nanocomposites, Chemical modification of rubbers, Thermoplastic elastomers based on novel blends and alloys, Recycling of rubber waste Ionomers, Conductive rubber composites for electrical and electronics application, Electron beam modification of polymers, Rheology and processability of rubber compounds and polymer blends, Polymer foam and microcellular rubber composite for various critical and industrial applications.
- **Rural Development Centre:** Research and Development : Essential oil production technology, Fish feed production from non-conventional biological sources, Farm level technology for processing of agricultural products.

Extension : Transfer of agricultural products processing technology, Organization of training and workshops on rural technology application.

- **G. S. Sanyal School of Telecommunications:** MAC protocols in Wireless Adhoc Networks and WMAN, Physical Layer Technologies for Next Generation Cellular, WMAN and WLAN, Loss-less Compression Methods for Images and Pictures, Channel Estimation and Equalization Method for Multi-carrier Wireless, Synchronization algorithms for OFDM based wireless transmission, Wireless Sensor Networks, Radar signal processing, BioMedical Signal Acquisition and Processing.
- **Rajendra Mishra School of Engineering Entrepreneurship:** Developed a rich entrepreneurship ecosystem consisting of academic programs, action based training programs and incubation over several domains with students, alumni and faculty. There is also a vibrant student based entrepreneurship cell (E-Cell) which organizes a variety of awareness and mentoring programs.
- **Rajiv Gandhi School of Intellectual Property Law:** Research in diverse issues of Intellectual Property Law and Policy framework under the Microsoft Centre of Excellence in Intellectual Property Research and Technology Policy
- **School of Information Technology:** Development of architectures, protocols and algorithms for mobile ad-hoc networks, vehicular ad-hoc networks, wireless sensor networks and wireless mesh networks, smart grid communications, cloud computing. characterization and incorporation of emotions in speech, speaker recognition system for handheld devices in varying background environments and development of Text-to-Speech (TTS) system for Indian languages. Various areas of network security are being explored, like penetrating testing, development of new algorithms for cryptography, their efficient and attack-resistant hardware implementation etc.
- **School of Medical Science and Technology:** Development of micro-fluidic Biochips / Bio-MEMS for medical application. Disease pattern recognizer for Oral Pre-cancer and cancer. Proteomics and reproductive health. Vaccine preventable diseases in HIV infected children. Integrated macro and micro-imaging on various healing and non-healing wounds including oral and breast precancer and cancer for their early characterization through image processing and analysis as well as integration with clinico-epidemiological features. Development of biodegradable scaffold for tissue engineering and wound research. Design, Synthesis and reactivity of β -Lactam based hybrid molecules. Cancer Biomarker, Neutraceuticals and Herbal medicine.
- **School of Water Resources:** Groundwater modelling in selected basins between Farakka and Ganga Sagar, Water Resources Management of Ganga River Basin Management Plan,
- **Vinod Gupta School of Management:** Besides conducting Management Development Programs and In-House Training Programs for various industries, the School has strengthened its Ph D Programme. The effort is

already bearing fruits. The research areas include: Marketing, Stock market analysis and Supply Chain management.

Academic Performance of faculty

Faculty of Institute had been at the forefront of research and development. Their academic performance is compiled online through a self-appraisal system. During the reporting year, faculty performance data is given below.

Books Published	36
Papers Published in Journals	1518
Papers Presented in Conferences	872

Education and Research Infrastructure Development

In view of the requirement of constant modernization in infrastructure and experimental facilities the Institute has acquired and installed several new scientific equipments and created facilities in the Departments, Centers and Schools. These are :

- **Aerospace Engineering:** Model-VFT2010: Vibration Fundamental Training Systems with Damper and Force Transducer; SUPER MICRO HPC (2+16) processors, or 72 cores, 2.4 GHz processors, 54x4GB DDR3 Reg ECC memory, 3900 GB HDD @3 GBps, Infiniband Cards and Switches.
- **Agricultural and Food Engineering:** Atomic Absorption Spectrometer, ThermoFisher Scientific; Flash 2000 CHNS Analyzer, ThermoFisher Scientific, GC-MS-HeadSpace System, CLARUS 600T, Perkin Elmer.
- **Architecture and Regional Planning:** 10 licenses of DesignBuilder and EnergyPlus; Building Energy simulation software; Large format scanner, Plotter, A3 Printer.
- **Biotechnology:** PCR System, ABI9700, Applied Biosystem; Mini Bead beater, Unigenetics; Gel electrophoretic apparatus (Vertical), GE Health; Care Cold Chamber GE Healthcare; Refrigerated Incubator, Amerex Instrument, USA; GM counter, Lab logic system, USA; Trinocular Phase contrast research microscope, Nikon, Japan.
- **Chemical Engineering:** Atmospheric pressure plasma surface treatment Unit; Box type coating unit; Imaging Ellipsometer; Programmable syringe pump; Automatic COD analyzer; COD digester; Contact Angle Goniometer with tilting facility.
- **Civil Engineering:** Atomic absorption spectrophotometer; Seismic piezocone; Insitu testing vehicle; MASW system for shear wave velocity profiling; Resonant column for small strain dynamic testing system for soil; Digital direct shear apparatus for soil testing.

- **Electrical Engineering:** Mono-crystalline cell based PV modules and their support structure with Bi-annual sun tracking mechanism has been installed on the rooftop of the Electrical Engineering Dept. Total 108 modules with an installed capacity of 17.68 kWp (at STC) has been installed.
- **Geology and Geophysics:** PC Based Gamma Ray Spectroscopy System GSPEC; HANNA multiparameter meter (for measuring water quality); FRANTZ magnetic barrier separator; FRITSCH disc mill.
- **Mathematics:** Tetcos NetSim Software.
- **Mechanical Engineering:** Active Pirani Transmitter; Baratron Absolute Capacitor Manometer; Fluke Industrial Thermal Image; Oil Injected Air Compressor; Plasma Spray Gun (Ador Fontech); Micro-Epsilon Laser Displacement Sensor; Krohne Marshall Mass-flow meter; Smart Laser Alignment System (PrufTechnik).
- **Metallurgical and Materials Engineering:** Lynx EyeDetector, X.Ray Lab; Upgradation of the existing Leica Met Microscope Model DFC 500, Metallography Lab; Upgradation of Existing Sintering Furnace with an attachment for Hydrogen Control Panel with a PLC, Powder Metallurgy Lab; Digital Analytical Balance with Density Determination kit, Phase Transformation Lab; Wire cut/CNC Electro Discharge Machine (EDM), Workshop.
- **Mining Engineering:** Los Angles Abrasive tester; Flicker tester LED based; Pneumatic trainer Ron make cat No. 4030; Dust Track DRX; Electro Hydraulic trainer; 4800 Start synth Microwave synthesis Lab Station; Pilot Plant for Air Pollution control Equipment (Bagfilter).
- **Ocean Engineering and Naval Architecture:** NAPA Ship Design software; ADCIRC with SMS Interface; ORCAFLEX; Milling machine installed in Welding Laboratory.
- **Physics and Meteorology:** X-ray Photo-electron Spectroscopy instrument; Optical Lithography instrument.
- **Centre for Educational Technology:** Establishment of a State-of-Art Video Systems Laboratory; Connections to 15 locations though Video Conferencing both in IIT-Kharagpur and in extension centers in Kolkata and Bhubaneswar.
- **Materials Science Centre:** Rotary vacuum evaporator (Heidolph); Microwave synthesis system (China National Corp.); Ageing oven; Precision Impedance analyzer (Waynekerr); Moisture and oxygen control Glove box (Mbraum, Germany); Single channel FFT analyzer; Electrometer with GPIB and RS232 (Keithley).
- **Rubber Technology Centre:** Dynamic Mechanical Analyser(DMA)- Metraviv, France.

- **G. S. Sanyal School of Telecommunications:** FPGA test / Programming facility with data acquisition cards; Radio Transceivers with FPGA test / Programming facility; Embedded DSP Board with data acquisition; OPTSIM : An Optical Communication System Design and Simulation tool.
- Ranbir and Chitra Gupta School of Infrastructure Design and Management : 10 desk top computers; PRIMAVERA and MX Roads softwares.
- School of Water Resources : Three numbers of HCL desktop computers in the Computer Simulation and Design Laboratory; Creation of a new classroom with projector, screen and other facilities.

Physical Infrastructure Development

- During the year, for better education of about 10,000 students considerable progress on Nalanda Class Room Complex has been made. Out of 88 class rooms, 44 will be completed by December 2012 and remaining 44 by July 2013. Eight of class rooms are currently being used.
- Out of 667 rooms of Lal Bahadur Shastri Hall of Residence, 503 rooms are currently in use and remaining 163 rooms will be made available by July 2013.
- 400 rooms of B. R. Ambedkar Hall of Residence will be available by December 2012. Remaining 1000 rooms will be available for allotment from July 2013.
- J. C. Bose Laboratory Complex has been completed. It currently houses four First Year Laboratories and two new Schools : Bioscience and Energy Science.
- Expansion of Workshop and IEM building that will house School of Engineering Design and Manufacturing have been done. Expansion of Computer Science and Engineering, Biotechnology and Chemical Engineering Departments are in progress.
- The Students Activity Centre has been completed.
- About 22 Kms of Campus Road have been widened and developed.
- For accommodation of faculty and staff during the year 81 B-type flats, 32 2BR flats and 32 1BR flats have been completed.
- Kazi Nazrul Community Centre has been completed.
- The Campus will get new building for Central School paving the way for 1000 capacity Ladies Hostel.
- The entire Campus is now wi-fi enabled with QPN facilities to all.

Health Care

The Institute provides primary health care to the campus community through B C Roy Technology Hospital located strategically within the campus. Constant efforts are on to upgrade and improve the existing facilities at the B. C. Roy Hospital. Round-the-clock emergency service and a 24 hour pharmacy have been made available. Critical care ambulance support is provided in emergency situations. Special clinics are provided in Medicine, Chest, Paediatrics, Skin, Psychiatry, Orthopaedics, Eye, ENT and Dental etc.

in addition to general outdoor services. Medical Insurance coverage through the Institute is available for the students. Immunization clinics are operated with the help of Consultant in Public Health and Paediatrician. Health Care remains a top priority in the activities of the Institute.

The different clinics in the Out Patient Department have been upgraded with modern diagnostic equipments. To name a few, Computerized Radiology Unit, Fully Automatic Biochemical analyzer, ICU Ventilator, Telemedicine Video Conference System, Video Slit Lamp and Auto- Refractometer, are some of the recently added equipments. A fully equipped Operation Theatre to meet the day to day need of the patients is on the anvil.

All the student hostels are regularly inspected by the visiting consultant in Public Health, who advises measures for improvement of sanitation and food services. Preventive Health Care is also functioning well. Personal hygiene measures of all hall workers are also being monitored.

International Collaboration

The Institute has always been active in establishing international collaborations to achieve progress in academic fronts. During the academic year 2011-2012, the Institute has signed several MoUs for the purpose of faculty and student exchange. These are :

- The Universita della Calabria, Italy;
- Curtin University, Australia;
- National Chiao Tung University, Taiwan;
- University of New South Wales, Australia;
- The Universite Lille, France;
- Graduate School of Engineering, Polytech Lille, France;
- The University of California, Berkeley.

Sponsored Research and Industrial Consultancy

Since its founding in 1952, the IIT Kharagpur has focused on some of the most challenging problems of our time. The various departments, centers, schools and research programs work across traditional academic boundaries to promote research and teaching that is interdisciplinary, collaborative and groundbreaking. The Sponsored Research and Industrial Consultancy (SRIC) is an interface between researchers at IIT Kharagpur and the government, private and international agencies/enterprises for smooth execution of challenging research and consultancy projects.

Today, our faculty and researchers in energy and the environment are exploring the development of renewable technologies to enable us to coexist with a bio-diverse planet. Through computation and information technologies, IIT Kharagpur researchers are deepening our comprehension of a multi-faceted world. Research in biological and related areas focuses on the interface of biosciences and bioengineering in diverse and multidisciplinary areas such as biochemistry, molecular biology, physiology, cell and developmental biology, tissue engineering and bioinformatics. Our research groups in nanotechnology and microscale processes are enabling the development of new materials and methods that support a safer, more cost-effective, and sustainable environment.

In the past year, IIT Kharagpur has received a number of high-value and flagship projects from the government and the industry. These are :

- Real Time Virtual Lab; funded by MHRD.
- Production of Ligonocellulosic Fuels : from Lab to Pilot Scale; funded by DBT.
- Development of Indigenous Tool for carrying out Random Sampling and Testing of Explosives and Accessories used in Mines of Coal India Limited.
- Architecture-Aware Timing Analysis and Optimization of Safety-critical Automotive Software (Autosafe), funded by Indo-German Science and Technology Center.
- International Year of Chemistry, DST - KGP Equipment Grant, funded by DST.
- Formation and Pilot Scale Unit for Production of Therapeutic Food in Ready-to-eat form (TF-RTE) for Management of Slum Children; funded by DBT.
- Development of Railway Bridge Health Monitoring System with Wireless Sensor Networks; funded by Ministry of Railways.
- North Eastern Origin Silk Protein based Matrices and Nano/Micro Particles for Biomedical Applications, funded by DBT.
- Development of Provisions for Design of Steel Concrete Railway Bridge for Normal Speed and Special Provisions for High Speed Passenger Traffic; funded by Ministry of Railways.
- Green House Gas Recovery from Coal Mines and Un-mineable Coal Beds and Conservation to Energy; funded by European Union.

During the year 2011-2012 the Institute received from the Government, private and international funding agencies/enterprises 141 research projects for a total value of Rs. 60 crores and 137 consultancy projects worth Rs. 11 crores aggregating a total of 278 projects for Rs. 71 crores.

The Intellectual Property Rights and Industrial Relations (IPR and IR) Cell under SRIC is responsible for the licensing and the transfer of technologies developed by researchers at IIT Kharagpur to the commercial sector. Till date, 263 patents were filed and 113 were granted and a total of 19 technologies were transferred. The Entrepreneur Cell under SRIC supports a variety of incubation programs funded by the Government.

IndAc 2011, a technological exposition initiated by the Technology Transfer Group (TTG) under Sponsored Research and Industrial Consultancy (SRIC), IIT Kharagpur is being organized on a regular basis at different parts of the country. The event showcases the potential of the institute as a research consultant and aims to strengthen collaboration with the Industry. The enthusiastic participation and response from the industry encouraged the students to organize the fourth edition of Indac, IndAc 2011, in New Delhi, focusing the role of IIT Kharagpur in two important sectors namely, (i) Agriculture and Food Processing and (ii) Energy and Power.

Students from various departments of IIT Kharagpur worked together under faculty mentorship to develop an Autonomous Underwater Vehicle with sophisticated control algorithms and intelligent systems to carryout tasks autonomously in water. The team and their vehicle won the national Student's

Autonomous Underwater Vehicle (SAVe) competition in India and represented the country for the first time at the 14th Robosub competition of the Association of Unmanned Vehicle Systems International at San Diego, USA July 2012.

STEP- IIT Kharagpur

Science and Technology Entrepreneurs' Park IIT Kharagpur has celebrated its silver jubilee last year. Since its inception, this eminent business accelerator is fostering innovation and entrepreneurship in this region, developing a sustaining ecosystem, as well as a resource creation platform. This provides leading edge financial, managerial, technical, legal and expert mentoring as well as co incubation facilities to innovators and entrepreneurs in eastern India. Currently, it is teeming with 45 incubated companies in several domains such as information and communication technology, health care, manufacturing, agriculture, electrical, electronic and chemical domain. Additionally, government supported funding programs enables innovators and entrepreneurs to transform their ideas into product as per market needs. STEP IIT Kharagpur has facilitated various kinds of financial grants and seed support to innovators and entrepreneurs, such as, Rs. 5.22 crores of innovation grant to 31 innovators and Rs 40.15 lakhs to 9 microenterprises for scale up and also facilitate ample funds for technology transfer and commercialization. Till date, STEP and its Technology Incubation and Entrepreneurship Training Society (TIETS) has provided close to Rs 2 crores of seed support to 17 startups with an excellent recovery rate. Star performer startups like Capillary Technologies, Data Resolve Technologies, Iviz Technologies, Minekey and P2Power solutions etc. have availed these incubation supports and have phenomenal success. A high tech VLSI product lab has been set up for the entrepreneurs which fulfill the fast prototyping, design and test measurement requirements of techno entrepreneurs. Besides, a health management lab is an integral part of our inclusive scalable health activity for providing affordable and accessible health care for Bottom of Pyramid.

STEP has always initiated, nurtured and strengthened its international co-entrepreneurship collaborations by fostering its successful "The Global Venture Lab" which was initially started in collaboration with UC Berkeley, California, USA and Jyvaskyla University, Finland. New universities such as Alto University, Helsinki, Finland, University of Aberdeen, Scotland, Johns Hopkins University-United States and Laval University, Montréal, Canada have been added as new partners.

STEP has undertaken major expansion towards meeting increasing demand for more incubation facilities to accommodate new startups and entrepreneurs, through creation of 36,000 Sq. ft. building infrastructure with all modern plug-n-play amenities at STEP Gopali campus. The 1st phase of construction, i.e 4500 sq. feet with the budget of 80 lakhs has already started and will be ready within next few months.

Conferences, Symposia, Seminars and Workshops

The Institute lays great emphasis on knowledge dissemination, and encourages organization of conferences, symposia and workshops. The last year saw Departments, Centers and Schools of the Institute organizing many such activities which attracted a large number of participants from India and abroad. Some of the important ones are :

- **Agricultural and Food Engineering:** Advanced programme on sprinkler and Micro-irrigation for efficient irrigation; Micro irrigation and greenhouse technology for Horticultural crops; Micro-irrigation and greenhouse technology; Plasticulture application in Horticultural crops; Precision Farming in Horticulture; Precision Farming in Horticulture; Precision Farming Technology; Protected Cultivation technology; Sprinkler and Micro Irrigation.
- **Biotechnology:** Bioinformatics Workshop; Environmental Genomics and Biotechnology.
- **Civil Engineering:** Seismic Analysis of RC Buildings; Seismic Design of RC Buildings; Design and Rehabilitation of Highway pavement.
- **Electrical Engineering:** Distribution System Technology; Tata Power Course.
- **Electronics and Electrical Communication Engineering:** Advanced DSP Design Techniques; Electromagnetic Environmental Effects; Telecommunication Networks and Security; VLSI Signal Processing; VLSI Technology CAD.
- **Humanities and Social Sciences:** Data Analysis through SPSS and AMOS for Social Sciences and Management Research; Planning and Managing Human Resources - Tools and Techniques; Research Methods in Business.
- **Industrial Engineering and Management:** Decision modeling in Facility Planning; Facility Layout and Decision Modeling and Industrial safety engineering; Management Development Programme on 'Total Quality Management'; Project Management; and Reconfigurable Manufacturing System.
- **Mechanical Engineering:** Optimization and Genetic Algorithms.
- **Mining Engineering:** Environmental Control in Mining and Allied Industries; Rock Mechanics.
- **Ocean Engineering and Naval Architecture:** Practical Shipbuilding.
- **Centre for Education Technology:** Educational Leadership.
- **Cryogenic Engineering:** Cryogenic Air Separation and Oxygen Safety-2012.

- **Reliability Engineering Centre:** Probabilistic Risk Assessment; Reliability Measurement and Demonstration Methods; Software Reliability.
- **Rajiv Gandhi School of Intellectual Property Law:** Software Protection.
- **Vinod Gupta School of Management:** Advanced Management Programme for Executives from Mining Industry.

Continuing Education Programme

The Continuing Education Programme is a part of an important activity of the Institute. Over the years, it has diversified in terms of coverage of disciplines, duration of programmes, the level of the programmes and the types of industries served. The activities include providing continuing education and training to professionals from industries – large and small, providing opportunities to teachers of engineering colleges to update their knowledge through short-term courses and pursuing M.Tech. and Ph.D. programs under the CEP which also promotes teaching-learning resource materials in the form of printed texts, CDs and computer aided instruction packages. During the last one year, with AICTE support, twelve teachers from various engineering colleges have obtained their Doctoral degree and twenty-six teachers their Master's degree. Ten teachers have enrolled for the Ph.D. programme, while eight teachers have taken advance admission to the Ph.D. programme.

Fifty-nine short term courses, both on-campus as well as off-campus, have been conducted for professionals employed in industry and Rand D organizations. Last year, 3,240 participants were awarded certificates on completion of the course works.

Under QIP, ten short term courses have been organized with 327 participants. Under the CEP, three 3-year M.Tech. programmes in Electronics and Electrical Communication Engineering, Electrical Engineering and School of Information and Communication Technology at its Kolkata and Bhubaneswar Extension Centres, primarily for faculty members of AICTE-sponsored engineering colleges organized.

Laurels and Distinctions Awarded to Faculty

Fellowships

- | | |
|-------------------------------|---|
| Dr. Subhas Chandra Kundu (BT) | • Fellow of the National Academy of Sciences |
| Dr. Debabrata Das (BT) | • Fellow of the Biotech Research Society of India |
| Dr. Sirshendu De (ChE) | • Fellow of the Indian National Academy of Engineering (INAE) |
| Dr. Amit Basak (CY) | • J. C. Bose National Fellowship, DST |
| Dr. Sabyashachi Mishra (CY) | • Ramanujan Fellowship |
| Dr. Subhasish Dey (CE) | • Fellow of the Indian Academy of Sciences |

Dr. Anil K. Gupta (Gand G)	<ul style="list-style-type: none"> • J. C. Bose National Fellowship, DST • Fellow of the Indian National Science Academy
Dr. Anindya Sarkar (Gand G)	<ul style="list-style-type: none"> • Fellow of the Indian National Science Academy • Fellow of the Indian Academy of Sciences
Dr. Anindya Chatterjee (ME)	<ul style="list-style-type: none"> • Fellow of the Indian National Academy of Engineering (INAE)
Dr. Indranil Manna (MME)	<ul style="list-style-type: none"> • J. C. Bose National Fellowship, DST

Awards

Dr. D. Acharya (Director)	<ul style="list-style-type: none"> • Lillian Gilbreth Award
Dr. Tanmaya Pathak (CY)	<ul style="list-style-type: none"> • Dr. D. S. Bhakuni Award for the year 2010 of the Council of the Indian Chemical Society
Dr. Swagata Dasgupta (CY)	<ul style="list-style-type: none"> • Darshan Ranganathan Memorial Lecture Award of the Chemical Research Society of India
Dr. C. Retna Raj (CY)	<ul style="list-style-type: none"> • CRSI Bronze Medal of the Chemical Research Society of India
Dr. Sabyashachi Mishra (CY)	<ul style="list-style-type: none"> • DST INSPIRE Faculty Award
Dr. Bhargab Maitra (CE)	<ul style="list-style-type: none"> • IRC-Pt. Jawaharlal Nehru Birth Centenary Award, for the year 2011 of the Indian Road Congress, New Delhi
Dr. Kousik Deb (CE)	<ul style="list-style-type: none"> • IIT Roorkee Shamsheer Prakash Research Award for the year 2012 of the IIT Roorkee
Dr. Manish A. Mamtani (G and G)	<ul style="list-style-type: none"> • National Geoscience Award - 2010 of the Ministry of Mines, Government of India
Dr. Suman Chakraborty (ME)	<ul style="list-style-type: none"> • Prof. K. N. Seetharamu Medal and Prize for Research in Heat and Mass Transfer of the Indian Society for Heat and Mass Transfer
Dr. K. K. Ray (MME)	<ul style="list-style-type: none"> • 2011 IIM-Distinguished Educator Award of the Indian Institute of Metals
Dr. Jayanta Das (MME)	<ul style="list-style-type: none"> • IEI Young Engineers Award 2011-2012 of the Institution of Engineers (India)
Dr. Subir K. Mukhopadhyay (MinE)	<ul style="list-style-type: none"> • Hindustan Zinc Prize (Gold Medal) for the year 2010-2011 of the Institution of Engineers (India)
Dr. Ashis Bhattacharjee (MinE)	<ul style="list-style-type: none"> • Felicitations Award "Eminent Mining Engineer", of the Institutions of Engineers (India)
Dr. K. U. M. Rao (MinE)	<ul style="list-style-type: none"> • Hindustan Zinc Prize (Gold Medal) for the year 2010-2011 of the Institution of Engineers (India)

- | | |
|-----------------------------------|--|
| Dr. Debasis Deb (MinE) | <ul style="list-style-type: none"> • Hindustan Zinc Prize (Gold Medal) for the year 2010-2011 of the Institution of Engineers (India) |
| Dr. T. K. Nath (PH) | <ul style="list-style-type: none"> • MRSI Medal for the year 2012 of the Materials Research Society of India |
| Dr. T. K. Bhattacharya (E & ECE) | <ul style="list-style-type: none"> • IBM Faculty Award 2012 |
| Dr. Rajat Suvra Chakraborty (CSE) | <ul style="list-style-type: none"> • IBM Faculty Award 2012 |

Membership of Editorial Boards

- | | |
|-------------------------------------|--|
| Dr. H. N. Mishra (Ag and FE) | <ul style="list-style-type: none"> • Member, Editorial Board, International Journal of Food Science and Technology • Member, Editorial Board Focussing on Modern Food Industry Journal |
| Dr. Madan Kumar Jha (Ag and FE) | <ul style="list-style-type: none"> • Executive Editor-in-Chief, International Agricultural Engineering Journal • Member, Editorial Board, Hydrogeology Journal |
| Dr. P. Guha (Ag and FE) | <ul style="list-style-type: none"> • Member, Editorial Board, "Journal of Food Science and Technology", published by STM Journals |
| Dr. B. K. Sengupta (ARP) | <ul style="list-style-type: none"> • Member, Board of Directors, West Bengal Housing Infrastructure Development Corporation Limited |
| Dr. S. C. Kundu (BT) | <ul style="list-style-type: none"> • Member, Editorial Board, Biomedical Materials • Associate Member, Journal of Regenerative Medicine and Tissue Engineering |
| Dr. Debabrata Das (BT) | <ul style="list-style-type: none"> • Editor-in-Chief, American Journal of Biomass and Bioenergy |
| Dr. Suneel Kumar Srivastava (CY) | <ul style="list-style-type: none"> • Associate Editor, Journal of Nanoscience and Nanotechnology |
| Dr. Kumar Biradha (CY) | <ul style="list-style-type: none"> • Associate Editor, Journal "Crystal Growth and Design" |
| Dr. Anindya Sarkar (G and G) | <ul style="list-style-type: none"> • Associate Editor, Journal of Earth System Science |
| Dr. Manish A. Mamtani (G and G) | <ul style="list-style-type: none"> • Member, Editorial Board, Journal of the Geological Society of India |
| Dr. William Kumar Mohanty (G and G) | <ul style="list-style-type: none"> • Member, Editorial Board, Journal of the Geological Society of India |
| Dr. Sanghamitra Ray (G and G) | <ul style="list-style-type: none"> • Member, Editorial Board, Journal of the |

Dr. Arindam Basu (G and G)	Geological Society of India
	<ul style="list-style-type: none"> • Member, Editorial Board, Journal of the Geological Society of India
Dr. Dilip Kumar Pratihari (ME)	<ul style="list-style-type: none"> • Member, Editorial Board, International Journal of Control Engineering and Technology • Member, Editorial Board, International Journal of Advanced Robotic System • Member, Editorial Board, International Journal of Applied Intelligence
Dr. Jayanta Bhattacharya (Min E)	<ul style="list-style-type: none"> • Member, Editorial Board, Journal of Metallurgical and Materials Engineering and Mining Engineering • Member, Editorial Board, International Journal of Mining Equipment • Member, Editorial Board, Mining Journal
Dr. Tapan Kumar Nath (PH)	<ul style="list-style-type: none"> • Member, Editorial Board, Dataset Papers in Nanotechnology, published by Hindawi Publishing Corporation • Member, Editorial Board, Journal of Spintronics and Magnetic Nanomaterials

Laurels and Distinctions Awarded to Students

Awards

Ramachandra C.T. , Ag&FE	Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research in Agricultural and Allied Sciences 2011, ICAR, New Delhi
Kaushik Bhattacharyya , &ECE	INAE Best Innovative Ph.D. Thesis Award–2011
Usha Lenka, HSS	Prof. Durganand Sinha Award for Best Doctoral Dissertation for the year 2011 conferred by National Academy of Psychology (NAOP)
Amit Kumar Jana, CY	First prize of 2011 Lilly Outstanding Thesis Awards
Santanab Giri, CY	Second prize of 2011 Lilly Outstanding Thesis Awards
Bodhisatwa Mazumdar, CSE	Nripendra Nath Biswas Best Student Paper Award at the 25th VLSI Design Conference, Hyderabad, January 9-11, 2012
Aastha Deswal, Ag&FE	Best Oral Presentation at the International Conference on Food Safety, Quality & Nutrition, April 11-13, 2012, Manchester Food Research

	Centre, Manchester, UK
Rajkumar Singha, PH	Best poster paper presentation in National Workshop on Nanotechnology for Defence Applications, Delhi, November 16-17, 2011
Ruchira Naskar, CSE	1 st Prize in the 1 st IDRBT Doctoral Colloquium Contest (2011),
Bikas Kumar Arya, SMST	Best students entries and presentation, 1 st Global Forum on Bacterial Infections, New Delhi
Anutosh Kanoria ARP Aaron David Mendonca, ARPKaranam Sagar Praveen, ARP	First Prize in AUTODESK India-BIM (Building Information Modelling) Student Design Competition- 2011, held at Sir J.J. College of Architecture in Mumbai on 14 October 2011
Shri Abhisek Datta, PH	Selected to represent India in the 5 th Asian Science Camp, held in the Korean Advanced Institute of Science and Technology, Daejeon, Korea from 7 th to 13 th August
Ankur Dutta, ChE Prateek Bhattsamant, ME Dripta Sarkar, OE&NA Akhilesh Betanamudi, E&ECEAaditya Sai Kiran, ME	ENERTIA AWARDS 2011 - Awards for Sustainable Energy & Power, in the Category Idea Innovation by Student

Scholarships

Poolla Bala Kameshwar, EE	OP Jindal Engineering and Management Scholarship-2011
S. Sriram, CE	OP Jindal Engineering and Management Scholarship-2011
Saurabh Agarwal, CSE	OP Jindal Engineering and Management Scholarship-2011
Subham De, CSE	OP Jindal Engineering and Management Scholarship-2011
Piyush Bagaria, E&ECE	Aditya Birla Scholarship-2011
Himanshu Uniyal, ME	Aditya Birla Scholarship-2011
Gaurav Kumar, E&ECE	Aditya Birla Scholarship-2011
Avishek Biswas, E&ECE	Todai-IIT Undergraduate Students Scholarship-2011
Vishnu Vardhan Ratnam, E&ECE	Todai-IIT Undergraduate Students Scholarship-2011
V. Raghu, AE	Todai-IIT Undergraduate Students Scholarship-2011
Prateek Sehgal, ME	Todai-IIT Undergraduate Students

Ashish Kumar, AE

Scholarship-2011

Todai-IIT Undergraduate Students
Scholarship-2011

Training and Placement

The Training and Placement Section of the Institute is actively engaged in forging synergistic relationships between the Institute and various industrial organizations and employers of technical and scientific manpower. During 2011–2012, 212 companies and organizations visited the campus for taking placement interviews. This year the placements of undergraduate students has been 86%, while that of the postgraduate students has been 71%. In addition to Undergraduate and Postgraduate students, 30 Ph.D. and MS students were also placed this year. This is significantly higher compared to last year. Harnessing student power has been very fruitful and students effectively ensured that placement programmes were run continuously as per schedule during the placement process. A total of 124 companies have offered training facilities to our students out of which 55 organizations had extended financial assistance. Last year 148 students of the Institute have taken summer internship abroad in many institutes / organizations likes Rio Tinto (Australia), EPFL (Switzerland), University of Warwick (UK), Mc Gill University (Canada), University of Alberta (Canada), University of Munich (Germany), Barclays Capital (Singapore), University of California (USA), Max Plank Institute for Information (Germany), University of Southern California (USA), Ecole Polytechnic (France), Finisar (Malaysia) etc. during Summer 2012.

Students' Affairs

Technology Students' Gymkhana is the nerve center of the extra curricular activities of the students and is vibrant with various sports, socio-cultural and technological activities. IIT Kharagpur has hosted 47th Inter-IIT Aquatic and Sports Meet as a part of diamond jubilee celebration during the month of October and December (2011), respectively. In the 47th inter-IIT Aquatic meet held at IIT Kharagpur, our student team was declared overall champion in the swimming and runners-up in water polo. Mr Chirag Fialoke won the individual championship for the third consecutive time.

Like every year, "Spring festival", the inter-collegiate cultural festival and "Kshitij", the intercollegiate techno-management festival has been organized successfully with students participation from all over the country.

A large number of facilities have been added. Construction of a new students' activity center is complete and operational. In addition two new synthetic tennis courts have been constructed. Tata Steel has been involved in the development of the Tata Sports Complex, where a new pavilion building has been constructed and a high mast lighting facility has been created by Tata Steel. In addition, one more high mast has been constructed by the institute. New courts for basketball

and volleyball have been constructed and the swimming pool has been fully renovated.

Alumni Affairs

As brand ambassadors, our alumni have been significantly participating in facilitating increased interaction of IIT Kharagpur in India and abroad and in shaping the vision of their alma mater.

The 61st Foundation Day of the Institute was celebrated on 18th August 2011. Mr. Sandipan Chakravorty, Managing Director, Tata Steel Processing and Distribution Limited, Kolkata, graced the occasion.

The 5th Nina Saxena Excellence in Technology Award, a first of its kind India-wide Technical Innovation Award instituted by IIT Kharagpur in 2006, was presented to the team of Advanced Bioresidue Energy Technologies Society (ABETS), IISc Bangalore, jointly with the team of Vikram Sarabhai Space Centre, Thiruvananthapuram by the Chief Guest Mr. Sandipan Chakravorty.

The New Year brought together the alumni of the Institute again to their alma mater in the form of 9th Annual Alumni Meet 2012 held during January 6-8, 2012. The Meet was dedicated to those who graduated in the years 1962, 1987 and 2001.

The Institute, under the Institutional Development Program, has launched “My Imprint Program”. Through this program outgoing students are requested to pledge their support towards the Institute initially through financial resources to be used for the excellence in teaching, research and in creation of infrastructure as well as industry collaborations. More than 400 outgoing graduates have already taken the pledge and some more are expected to do so at the time of the Convocation.

Founding Batch Endowment Campaign - IIT-KGP announced a special campaign for the IIT-KGP Endowment during the 9th Annual Alumni Meet. A batch leader is designated for every batch who moves forward the communication and networking. Alumni from several other batches have contributed and pledged to contribute as well.

The purpose of this Endowment is to support Vision 2020 to become one of the top 20 technical institutes in the world in 20 years. Seeing this overwhelming response from the alumni towards this goal, IIT-KGP is formally announcing the special campaign for Batch Endowment. This campaign is to promote Batch Endowment for a minimum of Rs. 50 Lakhs per batch. With this the Institute will honor the batch as “Founding Endowment Batch”. In addition to being a founding batch, the initial batches who meet the Rs. 50 Lakhs goal will have a class room designated for the batch with the name of donors displayed.

Contributions by Alumni

Concept of an alumnus contributing to his alma mater for the first time in the country started with Shri Vinod Gupta contributing for a School of Management in this Institution. Contribution for an IP Law School building later followed. This was followed by generous contributions of Shri Arjun Malhotra for the creation of G. S. Sanyal School of Telecommunication. Arjun Malhotra, Suhas Patil, Purnendu Chatterjee and many others contributed to networking, providing a computer to each student, and creation of world class VLSI Design Laboratory to name a few. Recently Ranbir Gupta and P. K. Sinha contributed to the establishment of School of Infrastructure Design and Bio-energy Centre respectively.

Many alumni are helping this Institute through Institution of Scholarship, through their intellectual contributions, mentoring and hand holding of the youngsters. It is the occasion to recognize their contributions that helped the Institute to be what it is today.

To further encourage grass-root participation, this year we have started a KGP Endowment Campaign to raise Rs. 4000 crore over next 20 years. To jump start to build a critical mass, a Founding Batch Campaign was initiated where Rs. 50 lakh contribution by a batch will make them a Founding Batch. Each founding batch will be recognized by naming a classroom after them in the Nalanda Academic Complex. It was heartening to see that many batches like 91, 62, 84, 85 as well as 2012 passing out batch have already come forward to help build the endowment. It is indeed a grass-root movement where all are requested to join hands.

Table A-1
ADMISSION TO UNDERGRADUATE (B.TECH./B.ARCH./M.SC./DUAL DEGREE) COURSES IN THE SESSION 2011-2012

Sl. No.	Course	SANCTIONED STRENGTH					ADMISSION OFFERED					ACTUALLY REGISTERED				
		GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL
(A) B.TECH. 4-YEAR																
1	Aerospace Engg	16(1)	9	5	2	32	16	9	5	2	32	15*	9	5	2	31
2	Agril. & Food Engg.	17(1)	9	5	3	34	18	8	5	3	34	18	8	5	3	34
3	Biotech. & Bioch. Engg.	14(1)	7	4	2	27	16	5	4	2	27	16*	4	4	2	26
4	Chemical Engg.	26	14(1)	8	4	52	26	14	8	4	52	26	14*	8	4	52
5	Civil Engg.	31(1)	17	9	5(1)	62	31	17	9	4	61	31*	17	9	4	61
6	Computer Sc. & Engg.	28(2)	15	8	4	55	27	16	8	4	55	27**	16	8	4	55
7	Electrical Engg.	28	15(1)	8(1)	4	55	27	16	7	4	54	27	16*	7	4	54
8	Electronics & ECE	31(1)	17(1)	9	5	62	31	17	9	5	62	31*	17*	9	5	62
9	Industrial Engg.	15(1)	8	4	2	29	14	9	4	2	29	13*	9	4	2	28
10	Instrumentation Engg.	16(1)	9	5	2	32	15	10	5	2	32	15*	10	5	2	32
11	Manuf. Sc. & Engg.	15(1)	8	4	2	29	14	8	4	2	28	14	8	3	2	27
12	Mechanical Engg.	34(2)	18	10	5	67	33	19	10	5	67	33**	19	10	5	67
13	Met. & Mat. Engg.	22	12(1)	7	3	44	21	11	7	3	42	21	11	7	3	42
14	Mining Engg.	20	11	6	3(1)	40	20	11	6	2	39	20	11	6	2	39
15	Ocean Engg. & N.A.	17	09	5(1)	2	33	17	9	4	2	32	17	9	4	2	32
Total (A)		330	178	97	48	653	326	179	95	46	646	324	178	94	46	642

Table A-1 (Continued)

Sl. No.	Course	SANCTIONED STRENGTH					ADMISSION OFFERED					ACTUALLY REGISTERED				
		GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL

(B) B.ARCH. 5-YEAR

1	Architecture	25	13(1)	8	4	50	35	2	3	0	40	33	2	2	0	37
Total (B)		25	13	08	04	50	35	2	3	0	40	33	2	2	0	37

Sl. No.	Course	SANCTIONED STRENGTH					ADMISSION OFFERED					ACTUALLY REGISTERED				
		GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL

(C) M.Sc. INTEGRATED 5-YEAR

1	Applied Geology	18(1)	10	5	3	36	27	0	5	0	32	21	0	4	0	25
2	Economics	22	12(1)	7	3	44	32	1	7	0	40	31	1	7	0	39
3	Expl. Geophysics	17	09	5(1)	3	34	25	2	4	0	31	23	2	4	0	29
4	Chemistry	17(1)	9	5	3	34	25	0	5	0	30	23	0	2	0	25
5	Maths. & Computing	24(1)	13	7	4	48	23	13	7	2	45	23	13	6	2	44
6	Physics	18(1)	10	5	3	36	26	1	5	0	32	22	0	5	0	27
7	Statistics & Informatics															
Total (C)		116	63	34	19	232	158	17	33	2	210	143	16	28	2	189

Table A-1(Continued)

Sl. No.	Course	SANCTIONED STRENGTH					ADMISSION OFFERED					ACTUALLY REGISTERED				
		GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL	GN	OB	SC	ST	TOTAL

(D) DUAL DEGREE 5-YEAR

1	Aerospace Engg.	10	5(1)	3	1	19	10	4	3	1	18	10	4	3	1	18
2	AG & F.E./Water Res. Dev. & Management	17(1)	9	5	3	34	23	2	5	1	31	21	2	5	1	29
3	Biotech. & Biochem. Engg.	13(1)	7	4	2	26	18	1	4	1	24	16	1	4	1	22
4	Chemical Engg.	14	7(1)	4	2	27	13	7	4	2	26	13	7	4	2	26
5	Civil engg./Struct. Engg.	11	6	3(1)	2	22	11	6	2	2	21	11	6	2	2	21
6	Computer Sc. & Engg.	20	11	6	3(1)	40	22	11	6	2	41	22	11	6	2	41
7	Elect. Engg./Instru. Engg.	11	6	3	2	22	11	6	3	2	22	11*	6	3	2	22
8	E&ECE / Auto. & Comp. vision	20	11(1)	6	3	40	20	10	5	3	38	20	10	5	3	38
9	Industrial Engg. /IEM	11	6	3	2	22	10	6	3	2	21	10	6	3	2	21
10	Manuf. Sc. & Engg./IEM	7	4	2	1	14	5	5	2	1	13	5	5	2	1	13
11	(i) M.E./M.S.Engg. (ii) M.E./Thermal, Energy & Environ. Engg.	24(1)	13	7	4	48	21	16	7	4	48	21*	15	7	4	47
12	Met. & Mat. Engg./Met. Engg.	10	5(1)	3	1	19	10	4	3	1	18	10	4	3	1	18
13	Mining Engg.	10	5	3	1	19	11	4	3	1	19	10	3	3	1	17
14	Mining Engg. / Safety Engg. & Disaster Mgt. in Mines	9	5	3	1	18	13	1	3	0	17	12	1	3	0	16
15	Ocean Engg. & naval Arch.	11	5	4(1)	2	22	11	5	3	2	21	10	5	3	2	20
16	QED&M	7	4	2	1	14	7	4	2	1	14	7	4	2	1	14

Total (D)	205	109	61	31	406	216	92	58	26	392	209	90	58	26	383
------------------	-----	-----	----	----	-----	-----	----	----	----	-----	-----	----	----	----	-----

Total (A + B + C + D)	676	363	200	102	1341	735	290	189	74	1288	709	286	182	74	1251
------------------------------	-----	-----	-----	-----	------	-----	-----	-----	----	------	-----	-----	-----	----	------

- The grand total includes 3% of total seats
- * includes 1 PD candidate ** includes 2 PD candidates

Table A2

ADMISSION TO 2-YEAR M.SC. COURSES, 2011-2012

Sl. No.	Course	OFFERED					REGISTERED					NOT REGISTERED				
		GE	OB	SC	ST	TOTAL	GE	OB	SC	ST	TOTAL	GE	OB	SC	ST	TOTAL
1	Chemistry	23	12	07	4	46	23	12	7	0	42	--	0	--	4	04
2	Geophysics															
3	Geological Sciences	15	08	05	02	30	15	9	5	2	31		1	0	0	1
4	Mathematics	15	08	05	02	30	15	9	5	1	30	0	1	0	1	2
5	Physics	23	12	7	4	46	23	12	7	2	44	0	0	0	2	2
6	Statistics & Informatics															
TOTAL		76	40	24	12	152	76	42	24	5	147	0	2	0	7	9

Table A-3

DISCIPLINE-WISE BREAK-UP OF STUDENTS AWARDED M.C.M. SCHOLARSHIP 2011-2012
Rate of Scholarship: Rs.1000/- p.m. plus Free-tuitionship (Applicable for Genl. & OBC students only)

S.N.	Course	1 st yr.	2 nd yr.	3 rd yr.	4 th yr.	5 th yr.	Total
(A) B.Tech. 4-Year							
1	Aerospace Engg.	09	08	05	01	-	23
2	Agri. & Food Engg.	09	06	07	-	-	22
3	Biotech. & Bioch. Engg.	07	05	07	03	-	22
4	Civil Engg.	17	13	09	11	-	50
5	Chemical Engg.	08	18	09	21	-	56
6	Computer Sc. & Engg.	19	24	11	13	-	67
7	Electronics & ECE	27	30	16	17	-	90
8	Electrical Engg	15	20	17	05	-	57
9	Industrial Engg.	06	08	02	04	-	20
10	Instrumentation Engg.	12	11	06	04	-	33
11	Mechanical Engg.	22	26	21	11	-	80
12	Manuf. Sc. & Engg	09	04	06	03	-	22
13	Mining Engg.	14	04	05	06	-	29
14	Met. & Mat. Engg.	09	04	05	03	-	21
15	Ocean Engg. & N.A.	10	08	06	06	-	30
(B) B.Arch. 5-Year							
	Architecture	08	07	07	08	10	40
(C) M.Sc. Integrated 5-Year							
1	Industrial Chemistry	-	-	-	-	-	-
2	Expl. Geophysics	02	02	-	-	-	04
3	Applied Geology	02	-	01	-	-	03
4	Economics/HSS(MSC integrated)	06	05	08	05	04	28
5	Maths. & Computing	02	-	-	-	-	02
6	Physics	03	-	-	02	-	05
7	Statistics & Informatics	-	-	-	-	-	-

Contd... Table A-3

S.N.	Course	1 st yr.	2 nd yr.	3 rd yr.	4 th yr.	5 th yr.	Total
(D) M.Sc. 2-Year							
1	Chemistry	-	-	-	-	-	-
2	Geophysics	-	-	-	-	-	-
3	Geological Sciences	01	-	-	-	-	01
4	Mathematics	-	-	-	-	-	-
5	Physics	02	01	-	-	-	03
6	Statistics & Informatics	-	-	-	-	-	-
(E) Dual Degree 5-Year							
1	Aerospace Engg.	09	-	05	03	-	17
2	Ag. & F. E../ Water Res. Dev. & Manag.	09	05	03	03	-	20
3	Biotech. & Bioch. Engg.	07	04	03	-	-	14
4	Chemical Engg.	05	12	06	07	-	30
5	Civil Engg./Struct. Engg.	06	03	04	04	-	17
6	Computer Sc. & Engg./Comp. & Information Technology	15	15	01	09	-	40
7	Electrical Engg./Instrumentation Engg.	05	09	05	04	-	23
8	E & ECE/Automation & Comp. Vision	05	10	12	06	-	33
9	Industrial Engg./IEM.	07	06	06	07	-	26
10	Manuf. Sc.& Engg./IEM	04	-	01	02	-	7
11	M.E./M.S. Engg.	10	16	10	06	-	42
12	M.E./Thermal, Energy & Environ. Engg.	-	-	-	-	-	-
13	Met. & Mat. Engg./ Metallurgical Engg.	05	02	03	07	-	17
14	Mining Engineering	02	09	03	07	-	21
15	Mining Engg./Safety Engg. & Disaster Mgt in Mines	-	-	-	-	-	-
16	Ocean Engg. & N.A.	05	04	03	04	-	16
17	QEDM	03	-	-	-	-	03
Total:		316	299	213	192	14	1034

Table A-4**STUDENTS AWARDED ONLY FREE TUITIONSHIP 2011-2012**

S.N.	Course	1 st yr.	2 nd yr.	3 rd yr.	4 th yr.	5 th yr.	Total
(A) B.Tech. 4-Year							
1	Aerospace Engg.	01	02	03	01	-	07
2	Agri. & Food Engg.	04	02	03	03	-	12
3	Biotech. & Bioch. Engg.	01	03	02	-	-	06
4	Chemical Engg.	06	-	-	01	-	07
5	Civil Engg.	05	06	06	02	-	19
6	Computer Sc. & Engg.	01	-	01	-	-	02
7	Electrical Engg.	05	01	03	-	-	09
8	Electronics & ECE	03	03	03	02	-	11
9	Energy Engg.	-	-	-	-	-	-
10	Industrial Engg.	06	01	03	-	-	10
11	Instrumentation Engg.	03	01	01	01	-	06
12	Manuf. Sc. & Engg.	03	03	03	01	-	10
13	Mechanical Engg.	06	02	04	02	-	14
14	Met. & Mat. Engg.	13	07	01	01	-	22
15	Mining Engg.	13	06	03	01	-	23
16	Ocean Engg. & N.A.	02	04	04	-	-	10
(B) B.Arch. 5-Year							
	Architecture	03	01	03	-	01	08
(C) M.Sc. Integrated 5-Year							
1	Applied Geology	-	-	-	-	-	-
2	Economics/HSS, MSC integrated)	07	-	01	-	-	08
3	Expl. Geophysics	-	-	-	-	-	-
4	Industrial Chemistry	-	-	-	-	-	-
5	Maths. & Computing	-	-	-	-	-	-
6	Physics	02	-	-	-	-	02
7	Statistics & Informatics	-	-	-	-	-	-

Condt... Table A-4

S.N.	Course	1 st yr.	2 nd yr.	3 rd yr.	4 th yr.	5 th yr.	Total
(D) M.Sc. 2-Year							
1	Chemistry	-	-	-	-	-	-
2	Geophysics	-	-	-	-	-	-
3	Geological Sciences	-	-	-	-	-	-
4	Mathematics	-	-	-	-	-	-
5	Physics	-	-	-	-	-	-
6	Statistics & Informatics	-	-	-	-	--	-
(E) Dual Degree 5-Year							
1	Aerospace Engg.	-	02	01	01	-	04
2	Ag. & F. E./ Water Res. Dev. & Manag.	01	02	02	-	-	05
3	Biotech. & Bioch. Engg.	01	02	03	-	-	06
4	Chemical Engg.	02	01	02	01	-	06
5	Civil Engg./Struct. Engg.	03	01	01	01	-	06
6	Computer Sc. & Engg./ Comp. & Information Technology	02	02	03	-	-	07
7	Electrical Engg./Instrumentation Engg.	-	-	01	-	-	01
8	E & ECE/Automation & Comp. Vision	03	01	02	01	-	07
9	Industrial Engg./IEM	01	-	-	01	-	02
10	Manuf. Sc.& Engg./IEM	02	01	03	01	-	07
11	M.E./M.S. Engg.	05	04	-	03	-	12
12	M.E./Thermal, Energy & Environ. Engg.	-	-	-	-	-	-
13	Met. & Mat. Engg./ Metallurgical Engg.	02	03	-	-	-	05
14	Mining Engineering	01	02	02	01	-	06
15	Mining Engg./Safety Engg. & Disaster Mgt in Mines	-	-	-	-	-	-
16	Ocean Engg. & N.A.	03	01	-	01	-	05
17	QEDM	01	-	-	-	-	01
Total:		111	64	64	26	01	266

Table A-5 (Contd.)

Sl.No.	Course	1 st yr.		2 nd yr.		3 rd yr.		4 th yr.		5 th yr.		Total
		SC	ST									

(E) Dual Degree 5-Year												
-------------------------------	--	--	--	--	--	--	--	--	--	--	--	--

9	Industrial Engg./IEM.			1	1			1				3
10	Manuf. Sc.& Engg./ IEM			1			1					2
11	M.E./M.S. Engg.											
12	M.E./Thermal, Energy & Environ. Engg..			1	1			1				3
13	Met. & Mat. Engg./ Metallurgical Engg.											
14	Mining Engineering					1		1				2
15	Mining Engg./Safety Engg. & Disaster Mgt in Mines	1										1
16	Ocean Engg. & N.A.	1			1							2
Total:		11	12	9	11	6	4	8	6	1		68

Prep : 4 +68 = 72

Table -A6

1

MEDALS AND PRIZES : 2011-2012 : Under-graduate

1. INSTITUTE GOLD MEDALS :

Sl. No.	Name of Medal/Prize	Name of the winner
1.	President Of India Gold Medal	Avishek Biswas
2.	Dr. Bidhan Chandra Roy Memorial Gold Medal	Devesh Kumar Dhruw
3.	Prime Minister Of India Gold Medal	Vighnesh Avadhani
4.	Dr. Jnan Chandra Ghosh Memorial Gold Medal	Chirag Fialoke
5.	Prof. J. C. Bose Memorial Gold Medal	Pratish Datta

2. ENDOWMENT GOLD MEDALS:

1.	Anukul Chandra Sarkar Memorial Gold Medal	Vikash Kumar Pandey
2.	Prof. R. G. Chatterjee Memorial Gold Medal	Shivangi Prasad

3. SILVER MEDALS :

A. 4-YEAR B. TECH.(HONS.) COURSES :

1.	Aerospace Engineering	Praveen Kumar
2.	Agricultural & Food Engineering	Jaisinghani Shaily Sudesh
3.	Biotechnology & Biochemical Engineering	Sona Todi
4.	Chemical Engineering	Gita Kumari
5.	Civil Engineering	Vikash Kumar Pandey
6.	Computer Science & Engineering	Radhika Mittal
7.	Electrical Engineering	Devesh Kumar Dhruw
8.	Instrumentation Engineering	Deepak Pathak
9.	Electronics & Electrical Communication Engineering	Avishek Biswas
10.	Industrial Engineering	Maralenahalli Jyothi Bylappa
11.	Mechanical Engineering	Vivek Mishra
12.	Manufacturing Science & Engineering	Tanmay Ghonge
13.	Metallurgical & Materials Engineering	Juhi Agrawal
14.	Ocean Engineering & Naval Architecture	Dhanoosha Penmetsa

B. 5-YEAR B. ARCH.(HONS.) COURSE :

1.	Architecture	Krush Dattani
----	--------------	---------------

C. 5-YEAR DUAL DEGREE COURSES :

1.	Aerospace Engineering (AE1)	Sandipan Chatterjee
2.	Agricultural & Food Engineering (AG1)	Dilip Patidar
3.	Biotechnology & Biochemical Engineering (BT1)	Arja Ray

4	Chemical Engineering(CH1)	Sukanya Sasmal
5	Civil Engineering(CED)	Allen Dan Babu
6	Computer Science & Engineering (CS2)	Vighnesh Avadhani
7	Electrical Engineering (EED)	Ashish Ranjan Hota
8	Electronics & Electrical & Communication Engineering(ECD)	Monodeep Kar
9	Industrial Engineering & Management(IM1)	Faizan Sarwar
10	Mechanical Engineering (MED)	Aditya Bandopadhyay Arunava
11	Manufacturing Sc.& Engg (MF1)	Siddharth Nayak
12	Metallurgical & Materials Engineering(MT2)	Koustav Ganguly
13	Mining Engineering (MI1)	Karthik Ravichandran
14	Ocean Engineering & Naval Architecture(NA1)	Dilip Reddy P

D. M. SC. (5-YEAR) COURSES :

1.	Exploration Geophysics	Avinash Nayak
2.	Applied Geology	Saptak Mohanta
3.	Economics	Soumya Shaw
4.	Mathematics & Computing	Kalyan Asis Sahoo
5.	Physics	Shivangi Prasad

E. M. SC. (2-YEAR) COURSES

1.	Chemistry	Udita Brahmachari
2.	Geophysics	Nancy Jain
3.	Geology	Barasa Mukul Hazarika
4.	Mathematics	Pratish Datta
5.	Physics	Soumya Jana

4. ENDOWMENT PRIZES - (UNDER GRADUATE)

1.	Sarat Memorial Prize	Radhika Mittal
2.	Suhasini Devi Memorial Prize	Jaisinghani Shaily Sudesh
3.	P. K Bhattacharya Memorial Prize	Avinash Nayak
4.	Sachinandan Basak Memorial Prize	Imbesat Ahmad
5.	Amlan Sen Memorial Prize	Vivek Mishra
6.	Swapan Kumar Saha Memorial Prize	Avishek Biswas
7.	Medury Bhanumurthy Memorial Prize	Devesh Kumar Dhruw
8.	H. N. Bose Memorial Prize	Shivangi Prasad
9.	Sharmila Bose Memorial Prize	Shivangi Prasad
10.	Bigyan Sinha Memorial Prize	Ratnam Vishnu Vardhan
11.	Usha Martin Award	Juhi Agarwal
12.	Systems Society Award	Snehil Agrawal
13.	Prof.K.L.Chopra Award	Udita Brahmachari
14.	Charubala Devi Memorial Prize	Utsav Banerjee
15.	Prof. Prabodh Chandra Sanyal Award	Md. Abu Talhamainuddin Ansary
16.	Umesh Kumar Bhatia Sports Prize	A.Nagendra Babu
17.	Pradeep Kumar Chakraborty Award	Anirban Gupta
18.	G. B. Mitra Award	Avinash Nayak
19.	Bhartiya Cutler Hammer Prize	Sanjukta Nandi
20.	Mansara Prize	Aaron David Mendonca
21.	R. M. Lalwani Prize	Utsav Banerjee

22.	H. P. Bhadury Memorial Prize	Tallavajhula Abhijeet
23.	John Von Neuman Award	Utsav Banerjee
24.	Prof. S. K. Nandi Memorial Prize	Rahul Prasanna Misra
25.	International Symposium (Microwave & Communication) 1981 Prize	Utsav Banerjee
26.	Class of 1970 Alumni (US) Association Prize	Lakshya Jain
27.	Technology Alumni Association (Delhi Chapter) Award	Sikhar Patranabis
28.	IIT Kharagpur Alumni (California Chapter) Award	Lakshya Jain
29.	Ram Gopal Kabre Memorial Prize	Lakshya Gupta
30.	Prof. S. P. Sengupta Memorial Prize	Tanmay Ghonge
31.	K. Rama Rao Endowment Prize	Madhurima Kumar
32.	Smt. Ava Sanyal Memorial Prize	Anirban Gupta
33.	Prof. B.N. Avasthi Memorial Award For Sports	Chirag Fialoke
34.	Prof. Sunil Kanti Sen Memorial Award	Siddharth Tyagi
35.	Prof. Sudhir Ranjan Sengupta Memorial Prize	Vikash Kumar Pandey
36.	Best B.Tech. Project Thesis Award By Mr. Mitrajit Mukhopadhyay	1 st – Anik Roy 2 nd – Ankit Agrawal 3 rd – Anmol Money Chopra
37.	A. A. Hakim Memorial Endowment Prize	Dilip Patidar
38.	Keshab K Parhi Endowment Prize	Monodeep Kar
39.	Nilanjan Ganguly Memorial Award For E&E.C.E. Deptt	Sankhadeep Pal
40.	Nilanjan Ganguly Memorial Award For Physics Deptt	Shivangi Prasad
41.	Kedar Nath Singh Memorial Prize	Shivangi Prasad
42.	Dwaraka Nath Singh Memorial Prize	Aditya Bandopadhyay Arunava
43.	Jugal Kishore Singh Memorial Prize	Vivek Mishra
44.	Rajender Kumar Khanna Memorial Award	Devesh Kumar Dhruw
45.	Ramneek Sodhi Memorial Award	Juhi Agrawal
46.	Sushil Kumar Chowdhury Memorial Award	Praveen Kumar
47.	Ashim Ranjan Guha Memorial Award	Jaisinghani Shaily Sudesh
48.	TKT Srikrishnan Endowment Prize	Jointly : 1. Pushkar Singh 2. Geet Lahoti
49.	Prof. J. P. Ghose Memorial Award	Joseph D Thekinen

5J. C. GHOSH MEMORIAL PRIZE

1	Aerospace Engineering	Deepali Gupta
2	Agricultural & Food Engineering	Arpit Rohatgi
3	Biotechnology & Biochemical Engineering	Vegesna Neeraja
4	Chemical Engineering	Rahul Prasanna Misra
5	Electrical Engineering	Sanjukta Nandi
6	Instrumentation Engineering	Nikunj Bajaj
7	Electronics & Elect. Commu. Engineering	Utsav Banerjee
8	Industrial Engineering	Ashutosh Nayak
9	Mechanical Engineering	Tallavajhula Abhijeet

10	Manufacturing Science & Engineering	Ritesh Agarwal
11	Metallurgical & Materials Engineering	Anirban Gupta
12	Mining Engineering	R Ashwin Kumar
13	Ocean Engineering & Naval Architecture	Janga Rahul Reddy
14	Architecture & Regional Planning	Nishant Vats
15	Industrial Chemistry	Boda Nishitha
16	Exploration Geophysics	Ankit Barik
17	Mathematics & Computing	Rahul Dalmia
18	Physics	Aditya G Date
19	Statistics & Informatics	Bhojanapally Saketa Lakshmi

6. BEST PROJECT AWARD :

A. 4-YEAR B. TECH.(HONS.) COURSES :

1.	Aerospace Engineering	Raghu V
2.	Agricultural & Food Engineering	Jaisinghani Shaily Sudesh
3.	Biotechnology & Biochemical Engineering	M.V.N.Uma Mahesh
4.	Chemical Engineering	Tanmoy Sanyal
5.	Civil Engineering	Mypati Sreemannarayana
6.	Computer Science & Engineering	Radhika Mittal
7.	Electrical Engineering	Devesh Kumar Dhruw
8.	Instrumentation Engineering	Deepak Pathak
9.	Industrial Engineering	Sumit Saurav
10	Electronics & Elect. Comm. Engineering	Sankhadeep Pal
11	Mechanical Engineering	Sambit Das
12	Manufacturing Science & Engineering	Tanmay Ghonge
13	Metallurgical & Materials Engineering	Manoj Kumar Gupta
14	Mining Engineering	Akshay Bagde
15	Ocean Engineering & Naval Architecture	Taskar Bhushan Uday

B. 5-YEAR B. ARCH. (HONS.) COURSE :

1.	Architecture & Regional Planning	Krush Dattani
----	----------------------------------	---------------

C. 5-YEAR DUAL DEGREE COURSES :

1.	Aerospace Engineering	Binit Kumar
2.	Agricultural & Food Engineering	Arundeep Chinta
3.	Biotechnology & Biochemical Engineering	Arja Ray
4.	Chemical Engineering	M.Rohit
5.	Civil Engineering	Allan Dan Babu
6.	Computer Science & Engineering	Naveen Kumar Sharma
7.	Electrical Engineering	Dipanjan Saha

8.	Electronics & Elect. Commu. Engineering	Monodeep Kar
9.	Industrial Engineering & Management	Aditya H.K.
10.	Mechanical Engineering	Saurya Prakash Mishra
11.	Mechanical Engineering	Aditya Bandopadhyay Arunava
12.	Manufacturing Science & Engineering	Siddhartha Nayak
13.	Metallurgical & Materials Engineering	Aniruddha Jana
14.	Mining Engineering	Karthik Ravichandran
15.	Ocean Engineering & Naval Architecture	Dilip Reddy P

D. 5-YEAR M. SC. COURSES :

1.	Industrial Chemistry	Iyer Abhishek Ramakrishna
2.	Exploration Geophysics	Rahul Jain
3.	Applied Geology	Radhika Patro
4.	Physics	Swetha Boddu
5.	Statistics & Informatics	Nikita Mishra

E. 2-YEAR M. SC. COURSES :

1.	Chemistry	Joyee Das
2.	Geology	Deepika Kalita
3.	Geophysics	Nancy Jain
4.	Mathematics	Pratish Datta
5.	Physics	Subhajit Sen

Table A-7

**STUDENTS AWARDED SCHOLARSHIPS BY EXTERNAL AGENCIES
(2011-2012)**

Sl. No.	Awarding Organization	No. of Recipients
1.	National Council of Educational Research & Training, Sri Aurobinda Marg, New Delhi 16	45
2.	INSPIRE Scholarship awarded by Department of Science & Technology, Govt. of India, New Delhi to the students of 5-Yr. Int. M.Sc.Course(Science stream only- Except Economics Branch)	437
3.	Rajarshee Shahu Maharaj Merit Scholarship, Director of Social Welfare, Maharashtra State, Pune.	05
4.	CSR Scholarship awarded by Shipping Corporation of India, Mumbai for SC/ST students of O.E. & Naval. Arch. Department (Fresh 11 + Renewal: 26)	37
5.	Merit-cum-Means Scholarship from Education Director (Scholarship & Stipend Section) Govt. of West Bengal, Kolkata (for 2- Yr. M.Sc. students)	-
6.	Directorate of Tech. Education, Assam	-
7.	Directorate of Higher Education, Tripura	-
8.	Directorate of Higher Education, Arunachal Pradesh	-
9.	Birsa Munda Technical Stipend, Ranchi, Jharkhand	-
10.	Steel Authority of India Ltd., : Durgapur, Rourkela, Visakhapatnam, Bokaro Steel Plant (DSP : 2Nos.,+ RSP:5 Nos. + VSP : 3 Nos.,+ BSP 01 Nos.)	11
11.	Aditya Birla Scholarship, Aaditya Birla Group, Aditya Birla Management Corporation, Mumbai (Fresh 1 + Renewal 3)	04
12.	New Central Sector Scholarship for Top Class Education for SC Students, Ministry of S.J&E, New Delhi	20
13.	New Central Sector Scholarship for Top Class Education for ST Students Ministry of Tribal Affairs, New Delhi	22
14.	Central Coal-fields Ltd., Ranchi.	-
15.	Post Matric Scholarship to SC/ST students , Govt. of Anhdra Pradesh	-
16.	Post Matric Scholarship, Social Welfare Deptt. Luncknow, Govt. of Uttar Pradesh	-
17.	Eastern Coal-fields Ltd., Calcutta.	-
18.	Directorate of Higher Education, Chattisgarh	-
19.	Institute of Engineers, Calcutta.	-
20.	FAEA Scholarship to BPL Cat. SC/ST students being awrded by Foundation for Academic Excellence & Access, New Delhi.	20
21.	Jagdish Chandra Bose National Talent Search, Calcutta (JBNSTS) (Fresh – 11 + Renewal-26)	37
22.	Jubilee Scholarship Committee, TISCO, Jamshedpur.	-
23.	National Board of Higher Mathematics, Deptt. of Atomic Energy, Govt. of India, Mumbai (for students of 2-Yr. M.Sc. course, Deptt of Math.)	-
24.	Indian Oil Corporation Ltd., New Delhi.	02
25.	Bharat Petroleum Corporation Ltd. Bombay.	-
26.	Directorate of Higher Education, Kerala	-

Contd...Table A-7

Sl. No.	Awarding Organisation	No. of Recipients
27.	Zindal Trust , New Delhi - OPJEM Scholarship	04
28.	CMRF, Govt. of Bihar, C.M.Secretariate, Patna	-
29.	G.O.I. Scholarship, Govt. of Tamilnadu	-
30.	NEC Scholarship, Guwahati, Assam	-
31.	Scholarship to SC/ST /OBC Students awarded by Various District Welfare Officers of BIHAR State	04
32.	TATA Millennium Scholarship (Russi Mody)	-
33.	BOEING Scholarship to the students of Aero Space Engg. Department from the ongoing Research Project "Boeing University Relations"(BUR) sponsored by Boeing Company, U.S.A	09
34.	CSR- Balmer Lawrie Scholarship under CSR Initiative of Balmer Lawrie & Co. Ltd. For SC/ST /PC students.	15
35.	Coal Fields India Ltd.	-
36.	Pratibha Scholarship, A.P.	-
37.	MCM Scholarship for Minorities Communities, Ministry of Minority Affairs, New Delhi	02
38.	KVPY Scholarship, IISc, Bangalore	42
39.	NEC, Shilong	-
40.	Siksha Deep Trust, Raj Bhavan, Chhatisgarh	-
41.	CBSE, New Delhi	-
42.	MECON, Ranchi	-
43.	Tribal Welfare (GOI) Scholarship, Jabalpur, M.P.	-
44.	Indira Gandhi Single Girl Child PG Scholarship to the girl students of 2-Year M.Sc. course University Grant Commission, New Delhi	-
45.	PG Merit Scholarship to the students of 2-Year M.Sc. course University Grant Commission, New Delhi	06
	TOTAL:	722

Table A-8

STUDENTS ON ROLL – UNDERGRADUATE (B.TECH/B.ARCH./M.SC./DUAL DEGREE) IN THE DEPARTMENTS AT THE BEGINNING OF THE SESSION 2011 – 2012

Sl. No.	Course	1 st yr.		2 nd yr.		3 rd yr.		4 th yr.		5 th yr.		Total
		M	F	M	F	M	F	M	F	M	F	
(A) B.Tech. 4-Year												
1	Aerospace Engg.	25	3	32	0	14	2	19	2			97
2	Agri. & Food Engg.	23	7	23	8	21	4	14	4			104
3	Biotech. & Bioch. Engg.	18	7	12	6	13	3	8	2			69
4	Chemical Engg.	46	10	47	10	37	3	35	3			191
5	Civil Engg.	53	3	53	5	40	2	39	1			196
6	Computer Sc. & Engg.	57	4	57	5	47	5	44	2			221
7	Electrical Engg.	88	8	91	8	71	9	58	6			339
8	Electronics & ECE	58	10	57	10	52	4	50	2			243
9	Industrial Engg.	27	3	27	2	20	0	22	1			102
11	Mechanical Engg.	93	5	91	7	74	8	76	2			356
12	Met. & Mat Engg.	31	6	40	4	31	2	20	4			138
13	Mining Engg.	35	0	40	0	27	0	24	0			126
14	Ocean Engg. & N.A.	29	1	28	1	24	1	18	2			104
TOTAL (A):		583	67	598	66	471	43	427	31			2286
(B) B.Arch. 5-Year												
	Architecture	36	6	32	13	27	8	19	4	13	9	167
TOTAL (B):		36	6	32	13	27	8	19	4	13	9	167
(C) M.Sc. Integrated 5-Year												
1	Chemistry	16	6	15	0	9	7	8	5	4	0	70
2	Geology	53	3	47	6	48	6	29	6	34	2	234
3	Humanities & Social Sc	28	9	22	10	17	5	17	1	17	0	126

Sl. No.	Course	1 st yr.		2 nd yr.		3 rd yr.		4 th yr.		5 th yr.		Total
		M	F	M	F	M	F	M	F	M	F	
4	Maths.	42	10	45	3	35	2	49	4	45	2	237
5	Physics	22	3	22	2	20	3	9	0	9	4	94
TOTAL (C):		161	31	151	21	129	23	112	16	109	8	761
(D) M.Sc. 2-Year												
1	Chemistry	34	07	32	7							80
2	GG	14	9	27	10							60
3	Mathematics	21	8	22	4							55
4	Physics	35	7	34	6							82
TOTAL (D):		104	31	115	27							277
(E) Dual Degree 5-Year												
1	Aerospace Engg.	17	1	20	1	19	1	12	1	18	0	90
2	Ag. & F. E..	27	4	22	8	20	5	15	1	15	1	118
3	Biotech. & Bioch. Engg.	16	6	17	5	21	4	13	2	18	5	107
4	Chemical Engg.	29	2	28	2	23	4	23	1	16	5	133
5	Civil Engg./Struct. Engg.	20	1	20	3	20	4	13	3	13	0	97
6	Computer Sc. & Engg./ Comp. & Information Technology	43	3	43	3	34	1	31	2	39	0	199
7	Electrical Engg./ Instru. Engg.	23	1	25	4	25	3	21	4	21	4	131
8	E & ECE	37	7	36	10	36	7	33	2	36	2	206
9	Industrial Engg./IEM	31	3	28	1	29	0	19	0	31	1	143
10	Mechanical Engg.	67	1	70	2	67	3	46	4	38	1	299
11	Met. & Mat. Engg./ Metallurgical Engg.	20	1	15	2	15	1	15	2	13	1	85
12	Mining Engg.	33	0	34	0	32	0	20	0	13	1	133
13	Ocean Engg. & N.A.	21	0	21	1	22	1	13	0	8	0	87
Total (E):		384	30	379	42	363	34	274	22	279	21	1828
TOTAL (A+B+C+D+E)		1268	165	1275	169	990	108	832	73	401	38	5319

Table A-9 (Contd.)

S.N.	Course	1 st yr.		2 nd yr.		3 rd yr.		4 th yr.		5 th yr.		Total
		P	I	P	I	P	I	P	I	P	I	
(E) Dual Degree 5-Year												
1	Aerospace Engg.	16	2	16	5	17	3	12	1	17	1	90
2	Ag. & F. E../ Dual Degree	26	5	20	10	21	4	10	6	16	0	118
3	Ag.& F.E/ Management											
4	Biotech. & Bioch. Engg.	18	4	19	3	22	3	15	0	23	0	107
5	Chemical Engg.	30	1	28	2	24	3	22	2	19	2	133
6	Chemical Engg./Management											
7	Civil Engg./Dual Degree	18	2	22	1	19	5	10	6	13	0	96
8	Civil Engg./Management											
9	Computer Sc. & Engg./ Dual Degree	42	4	38	8	32	3	25	8	36	3	199
10	Electrical Engg./Dual Degree	22	2	26	3	25	2	18	6	21	1	126
11	Electrical Engg./Management											
12	E & ECE/Dual Degree	42	2	38	8	40	3	29	6	36	1	205
13	Industrial Engg./IEM	18	3	26	3	27	2	18	1	15	3	116
14	Instrumentation Engg.	0	0	0	0	1	0	1	0	3	0	5
15	Manuf. Sc.& Engg./IEM	13	0	13	4	17	2	9	2	14	0	74
16	M.E./Dual Degree	52	3	52	3	42	9	29	10	37	2	239
17	Met. & Mat. Engg./ Dual Degree	18	3	16	1	16	0	17	0	14	0	85
18	Mining Engineering	31	2	26	8	30	2	20	0	14	0	133
19	Mining Engg./Safety Engg. & Disaster Mgt. in Mines											
20	Mining Engg./Management											
21	Ocean Engg. & N.A.	16	5	10	12	15	8	10	3	7	1	87
22	Quality Engineering Design and Manufacturing	0	1	0	0	0	0	0	0	0	0	1
Total (E)		362	39	350	71	348	49	245	51	285	14	1814
TOTAL (A+B+C+D+E)		1295	123	1223	221	931	166	788	117	421	17	5302

P – Passed, I - Incomplete

TABLE- B-1 ADMISSION TO POSTGRADUATE COURSES IN 2011-2012

Deptt.	Specialisation	Sanctioned	Admit.	Regular	SP	QIP	DF	GN	OBC	SC	ST	PH	M	F
AE	Aerospace Engineering	24	21	20	0	0	1	8	9	4	0	0	18	3
AG	Farm Machinery And Power	19	15	15	0	0	0	4	7	3	1	0	15	0
AG	Land And Water Resources Engineering	18	16	16	0	0	0	7	4	3	1	0	13	3
AG	Food Process Engineering	30	25	25	0	0	0	10	8	4	2	0	20	5
AG	Applied Botany	20	17	17	0	0	0	7	5	3	1	0	12	5
AG	Aquacultural Engineering	21	7	7	0	0	0	4	0	2	1	0	6	1
AG	Agricultural Systems And Management	19	17	17	0	0	0	5	8	3	1	0	12	5
AR	City Planning	42	34	33	0	0	1	15	10	6	3	0	19	15
AT	Embedded Controls And Software	10	7	6	1	0	0	4	2	1	0	0	7	0
BM	Business Administration	160	108	0	0	0	1	78	22	7	0	0	87	21
BM	Executive Mba	40	33	0	0	0	0	0	0	0	0	0	30	3
BT	Biotechnology And Biochemical Engineering	24	22	22	0	0	0	11	6	4	0	0	13	9
CE	Hydraulic And Water Resources Engineering	20	13	13	0	0	0	6	3	2	2	0	12	1
CE	Transportation Engineering	20	17	17	0	0	0	6	4	4	2	0	17	0
CE	Environmental Engineering & Management	18	11	10	2	0	0	5	3	4	0	0	7	4
CE	Geotechnical Engineering	18	10	10	0	0	0	5	3	1	1	0	8	2
CE	Structural Engineering	19	21	19	2	0	0	11	6	3	1	0	17	4
CH	Chemical Engineering	75	63	63	0	0	0	25	24	10	3	0	49	14
CL	Earth System Science And Technology	31	11	10	1	0	0	8	3	0	0	0	9	2
CR	Cryogenic Engineering	24	6	6	0	0	0	3	1	2	0	0	6	0
CS	Computer Science And Engineering	37	39	34	1	1	3	22	8	5	3	0	31	8
EC	Microelectronics & V L S I Design	29	28	26	1	0	1	16	7	3	2	1	21	7
EC	Rf And Microwave Engineering	28	23	21	0	0	2	10	7	4	2	0	22	1
EC	Telecommunication Systems Engineering	28	32	28	0	1	3	17	9	4	2	1	27	5
EC	Visual Info. And Embedded Systems Engg.	28	21	21	0	0	0	12	4	2	2	0	18	3
EC	Electronics & Communication Engineering	40	17	0	0	0	0	21	5	0	0	0	23	3
EE	Machine Drives And Power Electronics	18	15	15	0	0	0	6	5	3	1	0	12	3

EE	Control System Engineering	18	14	13	0	0	1	5	5	2	1	0	12	2
EE	Power And Energy Systems	18	18	16	0	1	1	8	6	3	1	0	18	0
EE	Instrumentation	18	13	12	0	0	1	4	4	3	1	0	12	1
EE	Electrical Engineering	40	6	0	0	0	0	12	2	1	0	0	11	4
ET	Media And Sound Engineering	15	5	4	0	1	0	2	3	0	0	0	5	0
GG	Exploration Geosciences	24	6	6	0	0	0	2	3	1	0	0	3	3
HS	Human Resources Management	30	19	0	0	0	0	9	4	3	2	0	12	7
ID	Infrastructure Design And Management	31	23	23	0	0	0	9	6	6	1	0	17	6
IM	Industrial Engineering And Management	25	17	14	3	0	0	9	5	3	0	0	16	1
IP	Intellectual Property Rights	80	45	0	0	0	0	39	4	2	0	0	25	20
IT	Information Technology	25	29	23	1	3	2	15	6	5	2	0	20	9
IT	Information & Communication Technology	40	18	0	0	0	0	25	1	1	0	0	23	4
MA	Computer Science And Data Processing	34	22	21	1	0	0	10	9	3	0	0	21	1
ME	Manufacturing Science And Engineering	26	16	15	0	1	0	7	3	4	2	0	15	1
ME	Thermal Science And Engineering	33	32	29	0	0	3	17	8	4	2	0	32	0
ME	Mechanical Systems Design	44	39	30	0	1	8	20	13	5	0	0	38	1
MI	Mining Engineering	24	5	5	0	0	0	1	1	2	1	0	5	0
MM	Medical Science And Technology	15	13	0	0	0	1	8	3	2	0	0	12	1
MS	Materials Science And Engineering	29	20	20	0	0	0	10	7	2	0	0	18	2
MT	Metallurgical And Materials Engineering	54	24	22	1	0	1	11	8	3	2	0	20	4
NA	Ocean Engineering And Naval Architecture	20	11	8	1	0	2	5	5	1	0	0	10	1
PH	Solid State Technology	25	18	18	0	0	0	8	6	4	0	0	15	3
RE	Reliability Engineering	20	15	7	2	0	6	9	4	2	0	0	14	1
RT	Rubber Technology	24	17	17	0	0	0	7	9	1	0	0	12	5
WM	Water Management	12	8	8	0	0	0	5	2	1	0	0	8	0
	Total	1,584	1,102	782	17	9	38	583	300	151	46	2	925	204

TABLE B-2 - POSTGRADUATE STUDENTS ON ROLL (1st Year-2011-2012 & 2nd year - 2010-2011)

Deptl/Centre	Specialisation	Intake Capacity 2011	1st year		2nd year		Total	
			M	F	M	F	M	F
AE	Aerospace Engineering	24	18	3	20	2	38	5
AG	Farm Machinery And Power	19	15	0	13	2	28	2
AG	Land And Water Resources Engineering	18	13	3	13	3	26	6
AG	Food Process Engineering	30	20	5	21	6	41	11
AG	Applied Botany	20	12	5	12	6	24	11
AG	Aquacultural Engineering	21	6	1	0	0	6	1
AG	Agricultural Systems And Management	19	12	5	2	5	14	10
AR	City Planning	42	19	15	18	15	37	30
AT	Embedded Controls And Software	10	7	0	0	0	7	0
BM	Business Administration	160	87	21	72	12	159	33
BM	Executive Mba	40	30	3	0	0	30	3
BT	Biotechnology And Biochemical Engineering	24	13	9	9	7	22	16
CE	Hydraulic And Water Resources Engineering	20	12	1	4	3	16	4
CE	Transportation Engineering	20	17	0	10	2	27	2
CE	Environmental Engineering & Management	18	8	4	3	1	11	5
CE	Geotechnical Engineering	18	8	2	8	2	16	4
CE	Structural Engineering	19	16	4	12	2	28	6
CH	Chemical Engineering	85	49	14	53	9	102	23
CL	Earth System Science And Technology	31	9	2	5	0	14	2
CR	Cryogenic Engineering	24	6	0	5	2	11	2
CS	Computer Science And Engineering	42	31	8	43	4	74	12
EC	Fibre Optics And Lightwave Engineering		0	0	5	2	5	2
EC	Microelectronics & V L S I Design	29	21	7	21	4	42	11
EC	Rf And Microwave Engineering	28	22	1	19	3	41	4
EC	Telecommunication Systems Engineering	28	27	5	18	6	45	11
EC	Visual Information And Embedded Systems Engg.	28	18	3	17	4	35	7

EC	Electronics & Communication Engineering	60	23	3	22	12	45	15
EE	Machine Drives And Power Electronics	20	12	3	15	1	27	4
EE	Control System Engineering	19	12	2	13	4	25	6
EE	Power And Energy Systems	18	18	0	10	1	28	1
EE	Instrumentation	18	12	1	18	1	30	2
EE	Electrical Engineering	60	11	4	12	6	23	10
ET	Media And Sound Engineering	15	5	0	0	0	5	0
GG	Exploration Geosciences	24	3	3	5	6	8	9
HS	Human Resources Management	30	12	7	13	6	25	13
ID	Infrastructure Design And Management	31	17	6	14	4	31	10
IM	Industrial Engineering And Management	15	16	1	13	3	29	4
IP	Intellectual Property Rights	80	25	20	18	11	43	31
IT	Information Technology	25	20	9	18	1	38	10
IT	Information & Communication Engineering		0	0	12	5	12	5
IT	Information & Communication Technology	40	23	4	0	0	23	4
MA	Computer Science And Data Processing	34	21	1	16	1	37	2
ME	Manufacturing Science And Engineering	35	15	1	15	1	30	2
ME	Thermal Science And Engineering	35	32	0	24	1	56	1
ME	Mechanical Systems Design	45	38	1	37	3	75	4
MI	Mining Engineering	24	5	0	5	0	10	0
MM	Medical Science And Technology	15	12	1	4	0	16	1
MM	Medical Imaging And Informatics	15	1	0	0	0	1	0
MS	Materials Science And Engineering	29	18	2	22	4	40	6
MT	Metallurgical And Materials Engineering	54	20	4	19	2	39	6
MT	Steel Technology	20	0	0	7	0	7	0
NA	Ocean Engineering And Naval Architecture	20	10	1	14	1	24	2
PH	Solid State Technology	25	15	3	12	2	27	5
RE	Reliability Engineering	24	14	1	6	1	20	2
RT	Rubber Technology	24	12	5	7	1	19	6
WM	Water Management	12	8	0	7	0	15	0
	Total	1,683	926	204	781	180	1,707	384

**TABLE- B -3 - STATEMENT OF RESULTS OF POSTGRADUATE EXAMINATION
(M.TECH/MCP/MMST/MBA) 2009-2010 BATCH OF STUDENTS**

Deptt. Centre	Specialisation	Registered	Successful	Incomplete
AE	Aerospace Engineering	19	19	0
AG	Farm Machinery And Power	15	15	0
AG	Soil And Water Conservation Engineering	8	8	0
AG	Dairy And Food Engineering	15	15	0
AG	Applied Botany	10	10	0
AG	Water Resources Development & Management	10	8	2
AG	Aquacultural Engineering	1	1	0
AG	Agricultural Systems And Management	10	10	0
AG	Post Harvest Engineering	17	16	1
AR	City Planning	24	24	0
BM	Business Administration	84	84	0
BT	Biotechnology And Biochemical Engineering	18	18	0
CE	Hydraulic And Water Resources Engineering	4	4	0
CE	Transportation Engineering	14	14	0
CE	Geotechnical Engineering	11	10	0
CE	Structural Engineering	17	17	0
CH	Chemical Engineering	58	55	3
CL	Earth System Science And Technology	9	9	0
CR	Cryogenic Engineering	6	6	0
CS	Computer Science And Engineering	43	40	3
EC	Fibre Optics And Lightwave Engineering	4	3	1
EC	Microelectronics & V L S I Design	25	24	1
EC	Rf And Microwave Engineering	21	19	2
EC	Telecommunication Systems Engineering	21	18	3
EC	Visual Information And Embedded Systems Engg.	25	25	0
EE	Machine Drives And Power Electronics	12	12	0
EE	Control System Engineering	17	16	1
EE	Power System Engineering	16	15	1
EE	Instrumentation	14	14	0
GG	Exploration Geosciences	3	3	0
HS	Human Resources Development & Management	7	7	0
ID	Infrastructure Design And Management	9	9	0
IM	Industrial Engineering And Management	15	14	1
IP	Intellectual Property Rights	20	19	1
IT	Information Technology	22	21	1
MA	Computer Science And Data Processing	26	26	0
ME	Manufacturing Science And Engineering	26	25	1
ME	Thermal Science And Engineering	27	25	2
ME	Mechanical Systems Design	29	29	0
ME	Mechanical Systems Dynamics And Control	3	3	0
MI	Mining Engineering	9	9	0
MM	Medical Science And Technology	8	8	0
MM	Medical Imaging And Image Analysis	4	4	0
MS	Materials Science And Engineering	16	16	0
MT	Steel Technology	13	0	13
MT	Metallurgical And Materials Engineering	29	28	1
NA	Ocean Engineering And Naval Architecture	16	16	0
PH	Solid State Technology	14	14	0
RE	Reliability Engineering	5	4	1
RT	Rubber Technology	11	11	0
WM	Water Management	7	7	0
	Total	867	827	39

TABLE: C-1
NUMBER OF RESEARCH SCHOLAS ENROLLED FOR THE PH.D. DEGREE DURING: 2011-2012
(01-07-2011 TO 30-06-2012)

Deptt./ Centre/ School	Institute	Joint	Sponsored Scholar	Project/CSIR/ /UGC/QIP/ DBT/ICMR	Teaching/ Non-teaching	Total	General	SC	ST	OBC	MINOR	Male	Female
AE	08	-	02	03	-	13	08	03	-	02	-	10	03
AG	12	04	05	18	-	39	24	03	03	09	-	29	10
AR	08	01	-	02	-	11	05	03	-	01	02	04	07
AT	03	-	-	18	-	21	14	03	-	04	-	13	08
BT	02	01	-	20	-	23	17	02	-	03	01	16	07
CY	08	10	-	29	-	47	33	05	-	07	02	31	16
CH	16	01	-	06	-	23	18	03	-	02	-	18	05
CE	14	02	01	09	-	26	18	03	01	04	-	21	05
CS	06	-	01	06	-	13	13	00	-	00	-	07	06
CR	03	-	01	01	-	05	04	00	-	01	-	03	02
ET	01	-	-	00	-	01	01	00	-	00	-	00	01
CL	02	-	-	04	-	06	03	02	-	00	01	05	01
EE	19	03	-	00	-	22	18	00	01	03	-	19	03
EC	25	-	01	07	-	33	27	02	01	02	01	30	03
GG	08	04	-	07	-	19	10	03	-	04	02	12	07
GS	02	-	01	01	-	04	03	01	-	00	-	03	01
HS	13	-	04	05	-	22	14	04	-	04	-	12	10
IM	05	-	01	01	-	07	07	00	-	00	-	07	00
ID	03	-	-	00	-	03	01	01	-	01	-	02	01
IP	02	-	-	00	-	02	02	00	-	00	-	01	01
MS	07	01	01	12	-	21	13	01	-	07	-	21	00
MA	07	18	-	08	-	33	24	04	-	03	02	24	09
ME	21	02	01	06	-	30	21	07	-	02	-	28	02
MT	12	-	03	03	-	18	10	07	01	00	-	14	04
MI	04	-	01	01	-	06	03	02	-	01	-	05	01
NA	03	-	01	02	-	06	03	01	-	02	-	06	00
PH	07	19	-	06	-	32	24	02	-	06	-	26	06
RE	01	-	01	01	-	03	02	00	-	00	01	02	01
RT	03	-	02	06	-	11	07	02	-	02	-	10	01
RJ	01	-	-	05	-	06	06	00	-	00	-	03	03
MM	07	-	02	07	-	16	13	00	-	03	-	09	07
IT	02	01	-	06	-	09	08	00	-	01	-	06	03
BM	05	-	08	05	-	18	14	01	-	03	-	13	05
WM	03	-	-	00	-	03	01	01	-	01	-	02	01
TS	03	-	-	01	-	04	03	00	-	00	01	03	01
TOTAL	246	67	37	206	-	556	392	66	07	78	13	415	141

TABLE: C-2**NUMBER OF MS STUDENTS ENROLLED DURING: 2011-2012 (01-07-2011 TO 30-06-2012)**

Deptt./Centre/ School	Total	General	SC	ST	OBC	Minor	Male	Female
AE	01	-	-	-	01	-	01	-
AT	14	13	01	-	-	-	10	04
CS	07	07	-	-	-	-	07	-
CL	01	01	-	-	-	-	-	01
EC	10	10	-	-	-	-	06	04
ET	02	02	-	-	-	-	02	-
GS	02	02	-	-	-	-	02	-
IT	05	04	-	-	01	-	03	02
IM	02	02	-	-	-	-	02	-
MS	01	-	-	-	01	-	01	-
MT	02	02	-	-	-	-	02	-
ME	01	-	01	-	-	-	01	-
RE	02	02	-	-	-	-	01	01
RJ	03	03	-	-	-	-	02	01
NA	01	01	-	-	-	-	01	-
BM	02	02	-	-	-	-	-	02
TOTAL	56	51	02	-	03	-	41	15

TABLE: C-2a**NUMBER OF POST DOCTORAL FELLOWS AS ON 30-06-2012**

Dept/Centre	No.
PH	01
TOTAL	01

TABLE: C-3**UGC SCHOLARS ENROLLED DURING: 2011-2012 (01-07-2011 TO 30-06-2012)**

Dept/Centre/ School	Total Number	General	SC	ST	OBC	MINOR	Male	Female
AT	01	-	01	-	-	-	01	-
AG	01	-	01	-	-	-	01	-
BT	03	03	-	-	-	-	02	01
CY	04	04	-	-	-	-	03	01
GG	02	01	-	-	01	-	01	01
HS	04	02	02	-	-	-	02	02
MS	01	01	-	-	-	-	01	-
MA	02	02	-	-	-	-	02	-
MM	01	01	-	-	-	-	-	01
RT	02	01	01	-	-	-	02	-
PH	02	01	-	-	01	-	02	-
BM	03	01	-	-	02	-	02	01
TOTAL	26	17	05	-	04	-	19	07

INDIAN INSTITUTE OF TECHNOLOGY, KHARAGPUR
RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH, 2012

Sl. No.	R E C E I P T S	Rs.	Sl. No.	P A Y M E N T S	Rs.
I.	Opening Balance (Bank Balances):		I	EXPENSES	
	a) In Current accounts	311647663		a) Establishment Expenses	1835397890
	b) In Savings accounts	678863862		b) Administrative Expenses	484419539
II.	Grants Received from MHRD		II	Investments and deposits made	
	Non-Recurring (Plan)	2100000000		Out of Own Funds & Others	8215312296
	Recurring (Non-Plan)	2150000000			
	OSC -PLAN	0	III	Expenditure on Fixed Assets & Capital Work-in-progress	1080021720
III.	Income on Investments from		IV	Other Payments	1950843280
	Own Funds	142663711			
IV.	Interest Received				
	a) On Bank deposits	20220387			
	b) Recoverable Advances	10629729			
V.	Academic & General Receipts	482851476			
VI.	Amount Borrowed/Loan refund received	107000000	V	Closing Balances :	
				a) In current accounts	365834168
VII.	Other Receipts	8468872836		b) In savings accounts	540920771
	TOTAL	14472749664		TOTAL	14472749664