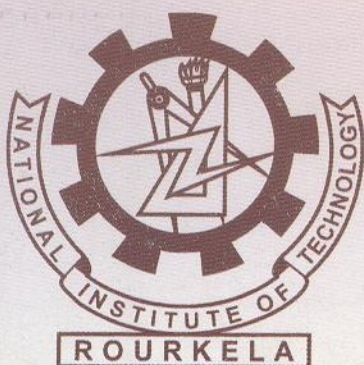


3rd Convocation

The Class of 2005



National Institute of Technology

Theme of the Cover Page

Thirteen photographs of the thirteen departments of the Institute have been arranged in the shape of the Figure "3", which stands for the 3rd Convocation



NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA

3RD ANNUAL CONVOCATION

28th January, 2006

Chief Guest

Prof. Chandrasekhar Jha

**Formerly Director of IIT Kharagpur, Vice Chancellor of Banaras Hindu University,
and Advisor to the Ministry of HRD**

Dr. Bansidhar Panda
Chairman, Board of Governors

Prof. Sunil Kumar Sarangi
Director

3RD ANNUAL CONVOCATION

Programme

09.55 hrs: Academic Procession proceeds to the Convocation Hall

10.00 hrs: Academic Procession arrives in the Convocation Hall

10.02 hrs: Invocation

10.05 hrs: Chairman, Board of Governors declares the 3rd CONVOCATION open

10.06 hrs: Director's Report

10.36 hrs: Award of Degrees by the Director

- (1) Dean of Academic Affairs presents the recipients of:
Doctor of Philosophy
Master of Technology
- (2) Head, Computer Science & Engineering presents the recipients of:
Master in Computer Applications
- (3) Heads of Chemistry, Mathematics and Physics present the recipients of:
Master of Science
- (4) Heads of the Engineering Departments present the recipients of:
Bachelor of Technology

11.10 hrs: Presentation of Medals and Prizes

- (1) Registrar announces the names of Medal and Awards winners
- (2) Chief Guest presents the Institute Gold Medals to the Best Postgraduate, Best Undergraduate and Best B.Tech. Project, Prof. Bhubaneswar Behera Gold Medal for the Best All-Rounder, Institute Silver Medals, Endowment Medals and Awards

11.20 hrs: Taking of Pledge by the Degree Holders

11.25 hrs: Address by Chairman, Board of Governors

11.40 hrs: Address by the Chief Guest

12.10 hrs: Chairman, Board of Governors declares 3rd CONVOCATION closed

12.11 hrs: National Anthem

12.12 hrs: Academic Procession returns

THE CHIEF GUEST

Professor Chandrashekhar Jha



Born on the 1st of July, 1934 and educated at Patna University (B.Sc. Honours in Physics), Indian Institute of Science, Bangalore (D.I.I.Sc. -Electrical Technology), Heriot-Watt College, Edinburgh, UK (F.H.-W.C), and Bristol University, UK (Ph.D. in Electrical Engineering), Dr. Jha started his professional career as a Design and Development Engineer at the English Electric Company, Bradford, UK and after a two-year spell in industry (1955-57) shifted to academic life as a Lecturer in Electrical Engineering at the University of Bristol (1958-61).

He returned to India in 1961 to accept a Readership at the University of Roorkee and a year later joined the Indian Institute of Technology, Delhi where he rose from an Assistant Professorship in 1962 to an Associate Professorship in 1963, a Professorship in 1964 and a Senior Professorship in 1969. He remained on the professorial staff of IIT Delhi till his retirement in June 1994. During his long academic career, he occupied several senior academic and administrative positions becoming Head of Department (1964-67), Dean of Engineering, IIT Delhi (1966-69), Director of IIT Kharagpur (1974-78), Educational Adviser (Technical) to the Government of India (1979-84) and the Vice-chancellor of the Banaras Hindu University (1991-93). On retirement from IIT, Delhi in 1994, Prof. Jha was appointed Chairman of the Recruitment and Assessment Centre of the Defence Research and Development Organization on a three-year contract (1994-97) and later became Honorary Chairman of the Governing Council of the DOEACC Society under the Ministry of Information Technology (1997-2001).

Prof. Jha has had several short and long-term international assignments. He held Visiting Professorship at the Imperial College, London (1968-69), at the Technische Hochschule, Aachen (Germany) (1969) and at the Pennsylvania State University, USA (1985-87). He gave short-term consultancy to UNESCO in 1986 and again in 1988 in the preparation of the Draft Convention on Vocational and Technical Education, and for advising Lagos and Ondo State Universities in Nigeria on the organization of their Engineering Faculty (1986). He has also been consultant to AIT, Bangkok, EdCIL, Asian Development Bank, African Development Bank, World Bank, and Swiss Development Co-operation on different issues of Science and Technology Planning, institutional development and curricular reforms.

Prof. Jha has been a member of several National and International Policymaking Committees and has contributed significantly to the planning and management of Science and Technology Education. Some of the important membership assignments were: National Committee on Science and Technology (NCST) 1975-76, Review Committee on TTIs (1975-76), High Power Committee to review Post-graduate education in Engineering (1978), Science and Engineering Research Council of DST (1980-84), Chairman AICTE Board of Post-graduate Education (1990-93), High Power Swaminadhan Committee to consider resource mobilization in Technical Education. (1993), High Power Punnaiya Committee for financing Central Universities (1992-93),

UNESCO Working Group on Continuing Education of Engineers (1973-88), Board of Trustees AIT, Bangkok (1974-86), and International Review Team for Colombo Plan Staff College for Technician Education (1983-84).

Prof. Jha has been a dedicated teacher and researcher and has introduced several innovations in his classroom and laboratory instruction. He has worked consistently to help his students develop creativity and problem solving skills, acquire communication ability and an awareness of quality, safety and reliability standards in their discipline, and retain an attitude for life-long learning. He has more than fifty research publications in National and International journals of repute on Electrical Machine Theory and Design and on Power Electronics Applications, and about 60 papers in National/International Conferences on various aspects of Science and Engineering Education.

Prof. Jha continues to be academically and professionally very active. He is currently an Honorary Visiting Professor at the IIT, Delhi, Honorary Adviser to the Board of Trustees, Asian Institute of Technology, Bangkok, Honorary Adviser and Member Board of Management of Radha Govind Engineering College, Meerut, Adviser and Member Supervisory Board of the Jaypee Institute of Information Technology, Noida, Jaypee University of Information Technology, Solan (H.P.), and Jaypee Institute of Engineering and Technology, Guna (M.P.), and Advisor to JSS Academy of Technical Education, Noida. He is a Fellow of the Indian National Academy of Engineering, a Fellow of the Institution of Engineers (India), and a founder member and Distinguished Fellow of the Indian Society for Technical Education. In recognition of his services to Technical Education in India, he has been awarded the Honorary Degree of Doctor of Science by the Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal in 2003 and by the UP Technical University, Lucknow in 2004.

CONVOCATION ADDRESS

Professor Chandrashekhar Jha

**Formerly Director of IIT Kharagpur, Vice Chancellor of Banaras Hindu University,
and Advisor to the Ministry of HRD**

I am very grateful to the Chairman and the Director of the Institute, and to its Senate for inviting me to be present on this auspicious occasion and for giving me the privilege of sharing my thoughts with the young graduates of this Deemed University who are at the threshold of joining their respective professional careers. At the outset, I would like to congratulate all the recipients of the various professional and other degrees of the institute whose consistent hard work over varying long periods of residence at the institute is being recognized and rewarded today. Many of you must have already started your new career in one of the many fields open to you and for which the Institute has equipped you with adequate knowledge, skills, and attitudes e.g.: higher education and research, software development, manufacturing, infrastructure development, marketing and sales, or management. Some of you may even have strayed away from professional work or are thinking of straying into other fields like administrative services or social work, but I am confident that you are sure to do well in whatever career you may have chosen for yourself because the education you have received in this excellent Institution gives you a wide range of problem solving abilities, as well as creative thinking and innovative skills, all of which are assets in any human endeavour.

Completing a course and earning a degree is not the end of learning for you. It is in fact the start of a new way of acquiring knowledge and skills in a professional environment - learning on the job, be it the shop floor, the design/development office, the field installation or the maintenance workshop. You may be packing up your textbooks, notes and

remnants of your Degree work performed in the class rooms or in the project/ research laboratories, but you will soon be spending your time on learning manufacturing techniques, installation procedures, maintenance regimen, quality control and other skills of professional practice and would even be required to undergo fresh training whenever the technology you are dealing with changes or advances. Fortunately, you have been prepared by your teachers to expect rapid changes in the technological system, as half-life of most existing technologies is constantly reducing and in many cases like computer science has become even less than a year. In your coming professional life of more than 30 years you will have to learn many new things time and time again to remain abreast of the advances being made globally. This is why every engineer is encouraged during his/her stay in any Institution of Higher Learning to acquire self-learning skills and develop a life-long learning attitude. You must cultivate this attitude and keep learning all the time from new books and journals, from seniors, and even subordinates, from the store house of information on the internet, from attending seminars and conferences and interacting with peers and even through attending part-or-full time courses when needed.

Unlike many countries of the developed world, engineering continues to be a popular subject of higher study for our school-leavers, its popularity coming only next to medicine. Although this is primarily because of the high employability of engineering graduates both at home and abroad, it also is due to the realization that engineering education prepares one to become skilled in problem

solving and is general enough for use in any field of human activity. Since good employment of graduates is one of the benchmark parameters for judging the success of an Institute's educational activity, it may be worthwhile to examine what qualities the Industry is looking for when it recruits its engineering graduate workforce. I have had the privilege of talking to a large number of HR specialists of large companies both from India and abroad, and in fields as diverse as high tech research to maintenance supervision, and there is a general consensus among all of them that communication and presentation skills, co-operative working, attitude for life-long learning and inter-personal skills are as important as problem-solving and engineering analysis and design skills. In a recent survey when Industry managers were asked what five most important qualities they would be looking for in engineering graduates in 2010, they zeroed on to: sound science and engineering fundamentals, teamwork, communication and learning skills, understanding of the world around them and an innovative attitude. You must recognize that the first job you get depends largely on your technical ability, the reputation of your alma mater and to some extent on the learning ability you display at the recruitment interview. But once recruited, you will be on your own and have to demonstrate competence through commitment, hard work and technical abilities in successfully tackling given assignments to compete for and earn a promotion. The further you go up on the ladder of responsibility, the more is the requirement of demonstrating your "soft skills" to remain successful and retain your leadership role: communication and presentation skills, co-operative working, inter-personal skills, organizational ability, team building skills, client-management skills and business acumen. Most of you are just starting your professional career but if you want quick promotions and aspire to become leaders in your profession in the shortest possible time, you would have to give enough importance to acquiring these soft skills while continuing to be good in your technical problem-solving domain. I know

your curricula and interaction with peers have given you some insight into these skills but remember no skill could be acquired only through lectures or limited practice, even the simplest one requires repeated exposure to practice over long periods. Ensure that your job gives you enough opportunities to practice these skills frequently. Only if you were a genius or a nerd, you would be tolerated in an organization even if you are an introvert and possess none of these soft skills. But then geniuses get recognition in many other ways and only rarely through promotion on the corporate ladder.

All of you graduating today are born in the 20th Century and would be doing your professional career in the 21st. The National Academy of Engineering of the US identified through a major survey the following 20 major achievements of the 20th century: electrification, automobile, airplane, water supply and distribution, electronics, radio and TV, mechanized farming, computers, telephone, air-conditioning, highways, spacecraft, internet, imaging, home appliances, health technologies, petrochemical technologies, laser and fiber-optics, nuclear technologies, and high performance materials. While society has benefited a great deal from the rapid technological advances made in these 20 fields, the new Century would perhaps have even more revolutionary advances to offer with even a higher rapidity of change. Some of you have already watched and perhaps even taken active part and benefited in some ways in the three major technological revolutions unleashed globally during the last three decades: Information, Bio-technology and Advanced Materials. In the coming years these will continue to grow and advance technologically, one talks of convergence technologies bringing information, communications and entertainment together on the same platform, of quantum and molecular computing, of integrating a billion transistor on a chip, of self-organizing, self-diagnosing and self-correcting systems, of robots doing all house work and of smart roads, bridges, cars and homes. All these are on the drawing boards and achievable in

the near future and many of you may even get involved in their development process. Look at the technological achievements of the year 2005 which has just gone by. It has brought Google's service for hosting and searching video clips, putting a searchable map of the world on the Web, and a promised effort to digitize books from some of the world's largest libraries; the cell phone reinventing itself by use as a credit-card swipe for paying for shopping, Japanese researchers unveiling a phone capable of identifying its owner; the disappearing line between the real and virtual world in computer games, UK academics announcing an ambitious plan to create a virtual world that could develop its own cultural practices and traditions, a US company launching the first virtual world for smart phones, Sony's April patent to describe a device that would transmit sensory data directly into the brain, Japanese robotic child minders and receptionists displayed as futuristic vision in World Expo 2005, first robotic camel racers taking to the track in April, IBM's announcement of creating a complete circuitry of the human brain using a super computer, new types of computer circuits using reconfigured living bacteria as well as nano-wires capable of powering tiny nano-engines, and the discovery in October of a way of using microorganisms to construct nano-circuitry. These and many others, which I have not listed, give you a glimpse of what excitement lies ahead of you in your coming professionally productive years.

Recently IT industries in collaboration with the Discover Magazine in US conducted a survey of the technical community to determine what they envision as the greatest challenges to be faced in the 21st century. The three challenges, which drew the maximum response, were: Computer Skills and Technology, New Energy Resources, and Environmental Concerns. While convergence of information, communication and entertainment on a common platform would continue to propel

advances in computer technologies, providing user skills to the general public on both sides of the "Digital Divide" would pose a major challenge for innovations in both the developed and the developing world. The continuing depletion of the known energy resources of the world is focusing attention on alternative energy sources and while the principles of operation of many of these new resources are well understood, tapping them in commercial quantities efficiently and at reasonable cost would require further research, development and innovation – be it solar, wind, tidal, ocean thermal, hydrogen or fusion energy systems. The degradation of the eco system brought about by excessive misutilization of natural resources through heavy industrialization resulting in global warming, climatic change, acid rain, ozone layer depletion, water and air pollution, unsafe disposal of chemical and nuclear wastes etc. have attracted attention of the whole world to the importance of sustainable development and to the need of preserving the environment for future generations. While some international agreements have been made to improve the situation, a lot needs to be done to ensure that development processes do not create new environmental problems.

Engineering is the profession in which knowledge of mathematical and natural sciences, gained by study, experience and practice is applied with judgment to develop ways to utilize economically the materials and forces of nature for the benefit of mankind. Engineers turn ideas into reality; they create useful products and systems through playing with imagination and possibilities, leading to new and meaningful connections and outcomes while interacting with ideas, people and the environment. You have so far only completed the study part; in coming years you will be gaining experience and practice and through them you will develop engineering judgment and would then be successful in turning ideas to reality and in creating useful

products and systems for the benefit of the common man. Remember that in your professional activities you are constantly interacting both with people/society and the environment and your awareness of societal concerns alone can help you in becoming successful in tackling and solving technological problems faced by society. It is interesting to note that many of the social concerns that we in India face are not very different from what the IEEE fellows identified as needing substantial technological resources in a global survey conducted in 2003: energy development, fight against terrorism, environmental protection, waste disposal, transportation, technological literacy, digital divide, and protection of intellectual property rights. Although the IEEE list is tilted heavily towards the US perspective, if you add inequitable distribution of benefits of economic growth among the population and the growing difference in living standards between the North and the South, and inequality in trade practices among nations, you get a fair global picture of current societal concerns which in some way or other is going to affect all your engineering and technological activities. Apart from the global concerns, we in India will like to give the highest priority to the removal of poverty and illiteracy from our land and to empower our common man to take full advantage of the development process. It is really shameful for all of us that in spite of more than fifty years of independence from the colonial past, we still have some 30% of our people below the poverty line and one third of all the illiterates of the world live in India. The task before you in building a new India free from hunger and illiteracy is indeed very daunting but I have faith in your ability to solve these and all other of our problems. All we need is your commitment, co-operation and dedication to the task of reconstruction of our country and our economy perhaps at some personal sacrifice.

You are graduating in a time when India's technological image in the world is very satisfactory. One third of all NASA scientists are Indians, there

are over 5000 Indian professors in American Universities and colleges, there are more than 30,000 Indian doctors in the US, GE has the second largest R&D center in India with over 1000 PhDs; 50% of Fortune 500 Companies outsource work to India, we are among three nations who have build supercomputers, and among six who have built satellites and launch vehicles, over 35% start-ups in silicon valley is by Indians, we have the largest English-speaking technical manpower in the world, software professionals from India are working in all developed countries and are in great demand everywhere, we are emerging as a high quality manufacturing destination-five Indian companies winning Deming prize for quality of their products last year, Indian companies are becoming global, India incorporated and made in India brand are becoming respectable in all parts of the globe, India is becoming a preferred destination for high quality health services and for R&D and manufacturing in engineering. This image has been brought about by the work of thousands of our brilliant scientists and engineers including software professionals and manufacturing technologists and managers. If you add to this image the government's demonstrated resolve to become a developed nation by 2020 through improving infrastructure, modernizing governance mechanism through reduction and elimination of unnecessary controls and bureaucratic procedures and introduction of e-governance wherever possible, strengthening the monetary systems, and promoting information technology and biotechnology both in education and industry, you must feel that you are confronted with enormous opportunities for high quality professional work and for helping in building this nation. The widening and extension of national highways (the golden quadrangle), the reported decision of the government to convert the Indian Railways to become a leading railway system of the world, introduction of bullet trains between Chennai and Bangalore, and between Mumbai and Ahmedabad, liberalization of import and custom duties, increasing admission to IT related

courses in engineering institutions, increasing the number of world class engineering and management institutions, developing individual IT and Biotechnology policies in many States etc are but a few examples of the Governmental initiatives of projects which are already in the pipeline. As somebody who has watched the Indian Technological Scene with interest over the last 40 years, I can say with confidence that you never had since independence such a favourable ambience for economic and technological progress. We have left behind the tag of "Hindu rate of growth" and even international organizations today acknowledge that we have a potential of growing at 10% per annum over a long period. We are now both mentally and technologically prepared to compete globally, ensure high quality of our engineering products and services, take full advantage of our qualified manpower potential, become one of the largest economies of the world, become a hub for advanced manufacturing in selected sectors, become a world leader in high-end software development, become a destination for high quality low-cost professional education in the world and thus further improve our world image as a vibrant and technologically competent nation.

You may have noticed that during the last year the IT industry in India witnessed the highest growth rate of the decade (34%) in exports which totaled US\$17.2 billion and the latest NASSCOM-McKinsey report (2005) has revealed that if the present looks good, the future seems even brighter. It sees the Indian IT industry becoming as important as the Japanese automobile industry, French fashion, or Saudi petroleum. At present we have a global software industry share of only 3%, but we dominate the off shoring market, with 65% and 46% share in global IT and BPO respectively. The report expects the global market to grow to 10 times the present size in the next five years and it concludes that Indian Industry can generate export revenue of some \$60 billion by 2010. In terms of employment, it would

mean raising the number of IT professionals from 700,000 to 2.3 million and creating jobs for some 9 million people when you include indirect and spin off employment. It would constitute 7% of India's GDP, and account for as much as 31% of India's total exports. To achieve this, the report makes many recommendations, the most vital one being the continuing and increased supply of talent not only in numbers but also in quality. The educational system of which we are a part must gear up to provide our graduates the skill-sets that match the Industry's needs. Let the anticipated growth not be hampered by unavailability of required talent. As the IT-ITES sector becomes more knowledge intensive, it is opening up a host of opportunities for the GenNext-not just B.Techs and MBAs but also for the BAs and PhDs. The Knowledge Process Outsourcing (KPO) would create jobs in several fields, as diverse as back-office work, clinical research and diagnostics, pharma and biotech, legal services, publishing, automotive and aerospace R&D. While low-end call center jobs can be taken over by school graduates (CII is planning to launch a new program eKaliber for training class XII students), high-end jobs in the KPO industry would need talented higher education output from the Universities and colleges

I would now like to say a few words to the distinguished faculty including Heads of departments, and Deans who have gathered here on this joyous occasion. I know how difficult it has been to recruit senior faculty in the Institute particularly in some selected disciplines like electronics and communication engineering, and computer science and engineering, and bulk of the teaching, laboratory supervision and tutorial guidance have fallen on the heads of young lecturers, many of whom have just left the University after graduation or post-graduation but have had no experience of teaching or participating in a teaching/learning situation. But most of them have been rising to the task and even teaching courses for which they have had no previous

training. They deserve our thanks for what they have been able to achieve but they still need recognition, assistance and guidance from senior faculty members and encouragement from their management for acquiring higher proficiency in their work. Many of you sitting in the audience are in a position to provide such assistance, guidance and encouragement. If you are able to do this and make the young teachers feel that you care for their professional growth, they would get morally committed to their jobs and the high mobility seen at the lecturer level will be a thing of the past. The community is setting up benchmarks for the performance of individual institutions and you will satisfy the benchmarks only if you improve the quality of the educational process in which the role of the faculty is of paramount importance.

I would like to conclude by reminding my young friends that the country has very high expectations from our young scientists and engineers. You are being looked up to as prospective builders of the New India: a nation being transformed from a “developing” to a “developed” one by 2020, a goal set up by our distinguished President of India Dr. APJ Abdul Kalam and endorsed by the Government. You are among the 540 million youth below 25 years in our population of over a billion people, but have the added advantage of being professionally qualified. Technological Leaders of modern India would have to emerge from you and others like you. Through your commitment and professional endeavors we have to prove to the world that our ancient traditions and wisdom which were responsible for our proven leadership in the past in mathematics, astronomy, construction, aesthetics, metallurgy and medicine have not been only a flash-in-the pan in days gone by but would soon propel us to acknowledged global leadership in software development, knowledge management, manufacturing, engineering consultancy services, and education along with excellence in traditional arts and craft as well as a

demonstration of peaceful existence of our people through unity in diversity.

May God bless you all and crown you with success in your endeavours.

Prof. Chandrasekhar Jha



Dr. Bansidhar Panda
Chairman, Board of Governors

Photographs of the Chairman and Director



Prof. Sunil Kumar Sarangi
Director

Members of Board of Governors

1. **Dr. Bansidhar Panda,**
Chairman & Managing Director,
IMFA Group of Industries,
Bhubaneswar,
Chairman, Board of Governors
2. **Mr. Ravi Mathur, IAS**
Joint Secretary (Technical),
MHRD, Govt. of India,
New Delhi
3. **Prof. D. Acharya**
Chairman, AICTE,
New Delhi
4. **Father, E. Abraham**
Director,
XIM, Bhubaneswar
5. **Prof. P. K. J. Mohapatra,**
Professor,
Industrial Engg. & Management,
IIT, Kharagpur
6. **Dr.(Mrs) Renu Batra**
Joint Secretary, UGC
New Delhi
7. **Dr. K. Madhu Murthy**
Advisor (Administration),
AICTE, New Delhi
8. **Shri N. R. Mohanty,**
Ex-Chairman, HAL
Bangalore
9. **Dr. Sanak Mishra**
Ex-Managing Director,
SAIL, Rourkela Steel Plant
10. **Prof. Satyananda Acharya**
Director, IMFA Limited,
Bhubaneswar
11. **Shri S. K. Ray**
Joint Secy. & Financial Advisor,
MHRD, Govt. of India,
New Delhi
12. **Prof. G. S. Rath**
Professor, EC Department,
NIT, Rourkela
13. **Prof. K. R. Patel**
Mechanical Engg. Department
NIT, Rourkela
14. **Prof. S. K. Sarangi**
Director & Secretary, Board of Governors,
National Institute of Technology,
Rourkela

Members of Senate

1.	Prof. S. K. Sarangi, Director	Chairman
2.	Prof. G. K. Roy	Chemical Engg.
3.	Prof. P. Rath	Chemical Engg.
4.	Prof. K.C. Biswal	Chemical Engg.
5.	Prof. S. K. Agarwal	Chemical Engg.
6.	Prof. K. K. Mishra	Civil Engg.
7.	Prof. B. K. Rath	Civil Engg.
8.	Prof. A. K. Sahoo	Civil Engg.
9.	Prof. M. Panda	Civil Engg.
10.	Prof. K.C. Patra	Civil Engg.
11.	Prof. N. R. Mohanty	Civil Engg.
12.	Prof. J. K. Pani	Civil Engg.
13.	Prof. N. Roy	Civil Engg.
14.	Prof. A.K. Pradhan	Civil Engg.
15.	Dr. A. K. Panda	Civil Engg.
16.	Prof. P. C. Panda	Electrical Engg.
17.	Prof. J. K. Satpathy	Electrical Engg.
18.	Prof. P. K. Nanda	Electrical Engg.
19.	Prof. R. N. Das Choudhury	Electrical Engg.
20.	Prof. N. Kavi	Mechanical Engg.
21.	Prof. B. K. Nanda	Mechanical Engg.
22.	Prof. R. K. Sahoo	Mechanical Engg.
23.	Prof. K. R. Patel	Mechanical Engg.
24.	Prof. R. C. Behera	Metallurgical & Materials Engg.
25.	Prof. A. K. Panda	Metallurgical & Materials Engg.
26.	Prof. G. S. Agarwal	Metallurgical & Materials Engg.
27.	Prof. K. N. Singh	Metallurgical & Materials Engg.
28.	Prof. U. K. Mohanty	Metallurgical & Materials Engg.
29.	Prof. B. B. Verma	Metallurgical & Materials Engg.
30.	Prof. B. K. Pal	Mining Engg.
31.	Prof. S. K. Rath	Computer Science & Engg.
32.	Prof. S. K. Jena	Computer Science & Engg.
33.	Prof. G. Panda	Electronics & Communication Engg.
34.	Prof. G. S. Rath	Electronics & Communication Engg.
35.	Prof. K. K. Mohapatra	Electronics & Communication Engg.
36.	Prof. S. Adak	Ceramic Engg.
37.	Prof. B. Pradhan	Chemistry
38.	Prof. K. M. Purohit	Chemistry
39.	Prof. A. Roy	Mathematics

40.	Prof. A. Behera	Mathematics
41.	Prof. (Mrs.) K. L. Roy	Mathematics
42.	Prof. D.G. Sahoo	Mathematics
43.	Prof. S. Panigrahi	Physics
44.	Smt. S. Mohanty	Humanities & Social Sciences
45.	Prof. B. B. Biswal	Training & Placement
46.	Prof. S. K. Patel	NTMIS, Nodal Centre
47.	Prof. Ajoy Chakraborty	IIT Kharagpur
48.	Prof. E. M. Rao	XLRI, Jamshedpur
49.	Prof. B. Mohanty	XIM, Bhubaneswar
50.	Prof. G. C. Mitra	Sahidnagar, Bhubaneswar
51.	Dr. R. K. Bhandari	Dept. of Atomic Energy, VECC, Kolkata
52.	Sri Sudhakar Jha	Balmer Lawrie & Co. Ltd., Kolkata
53.	Sri G. Upadhyaya	Ex-CMD, NALCO
54.	Sri B. K. Mishra	Northern Regional Electricity Board, New Delhi
55.	Sri. S.K. Upadhyay, Registrar	Secretary

DIRECTOR'S REPORT

Prof. Chandrasekhar Jha, Chief Guest of this event, Dr. Bansidhar Panda, Chairman, Board of Governors, Members of the Board of Governors, Members of the Senate, Distinguished Guests, Colleagues, Degree recipients, Students and Staff of this Institute, Media persons, Ladies and Gentlemen.

It is my proud privilege and honour to welcome you all to the **Third Convocation** of the **National Institute of Technology, Rourkela**. Before I present my report, let me have the pleasure of introducing our distinguished Chief Guest of the Convocation, Prof. Chandrasekhar Jha, renowned electrical engineer and educationist. Prof. Jha, in his distinguished career, has served as Professor of Electrical Engineering, IIT, Delhi, Director of IIT, Kharagpur, Vice Chancellor of the Banaras Hindu University and Advisor to the Ministry of Human Resource Development. In fact, Prof. Jha was my Director when I joined IIT, Kharagpur as a Faculty member in 1977. Besides being a renowned academician, Prof. Jha has been a member of several national and international policy making committees and has contributed significantly to the planning and management of science and technology education both in India and abroad. Some of his important membership assignments were: National Committee on Science and Technology, High Power Committee to review Post-Graduate Education in Engineering, Science and Engineering Research Council of DST, AICTE Board of Post-Graduate Education and many others. In recognition to his services to technical education in India, he has been awarded the honorary degree of Doctor of Science by Rajiv Gandhi Prodyogiki Vishwavidyalaya, Bhopal and by the UP Technical University, Lucknow.

It is also my pleasure to welcome Dr Bansidhar Panda, our esteemed chairman of the BOG to this landmark event. If our Institute has made visible

progress not only in academics, but also in infrastructure, administration and student activities, we owe it to the inspiration of our Chairman, Dr Panda. Dr. Panda is a visionary and has played a valuable role in the development of small industry in Orissa for over four decades. We expect that the institute will scale new heights of glory and recognition with the association of such an eminent personality.

The presence of these two eminent dignitaries will inspire our young graduates to work hard to take the institute and the country to new heights. With this brief introduction of the two very distinguished guests, I take the liberty of presenting before you the highlights of institute activities during the past one year.

THE ACADEMIC PROGRAMME

Keeping pace with the changing trends in human resource development, our institute has undertaken several major academic reforms over the past one year. The courses in both under-graduate and post-graduate programmes have been restructured giving emphasis on self-learning. We are now working on a fully restructured B Tech programme which is comparable in content and quality to those of most advanced engineering institutes in India and abroad. The present batches of first and second year students are already in the new system. We have also introduced continuous student evaluation and are working on a course feedback system by the students.

The Institute has been offering regular M. Tech programmes in most of the departments. In order to attract bright young scholars for post-graduate studies in engineering, particularly in new and emerging fields, a new programme - M. Tech by Research has been put in operation. Such a programme has led to promotion of research activity throughout the institute and has created opportunities for postgraduate education in areas where it is not feasible to offer a full fledged M Tech programme.

Absence of adequate financial assistance to research students in the form of fellowships limits the number of students pursuing higher degrees at NITs. Still, many bright students, attracted by the high academic standards and superior environment, have opted to pursue postgraduate and doctoral studies at NIT Rourkela. This number will increase significantly and the research environment of the institute will receive a boost when we obtain the Government's approval to award research scholarships to deserving students. A number of new M. Tech programmes have been started in different departments, which include Thermal Engineering offered by the Department of Mechanical Engineering, Power Drives and Control by the Department of Electrical Engineering and VLSI Design and Embedded Systems by the Department of Electronics and Communication Engineering which have been started from this academic session. M. Tech programmes in Ceramic Engineering and Mining Engineering have received Government approval and will be started from next academic session. An M. Tech. programme in Bio-chemical Engineering and Biotechnology to be offered by the Department of Chemical Engineering is awaiting AICTE approval. A number of new and sophisticated equipment have been added to the different departments under the TEQIP funding. Some of these equipment are: BET Surface Area Analyzer, High Pressure Liquid Chromatograph,

Industrial Laser Doppler Vibrometer, Image Processing Hardware Kit, dSpace Ace Kit, RTOS software and Hardware, Rapid Prototype System, Cryo- DSC and SURPAC Vision Software. The institute is in the process of procuring a state of the art Scanning Electron Microscope with X-Ray Mapping facility and cryogenic attachment. All these facilities are easily accessible to the different departments within the institute as well as to outside institutions.

The Training and Placement department has done an excellent job of placing our graduates and postgraduates in most reputed organisations. Work has been initiated to build a new seminar and interview complex for placement activities. Work is also in progress to establish a new and well-equipped Language Laboratory under the Department of Humanities and Social Sciences which will help the students to develop better communication skills. The working environment across the departments has been reshaped with a view to provide a transparent and efficient administrative system. The new office automation system, introduced recently, will help to improve the situation further.

SPONSORED RESEARCH & INDUSTRIAL CONSULTANCY

The Institute, besides providing basic training to undergraduate and postgraduate students, encourages its faculty members to carry out research and consultancy work of both basic and applied nature. During the last year, the institute has received over 2 crores worth sponsored research projects, almost equally divided between the Ministry of HRD and other sponsoring agencies like DST, Dept. of IT, DRDO etc. The Department of Science & Technology has also sanctioned major grants for improvement of equipment infrastructure in almost all the departments under its FIST programme.

Apart from the research projects, the institute has also received consultancy projects from Ib Thermal Power Station, Indira Gandhi Centre for Atomic Research, Chattisgarh State Electrical Board and Ministry of Rural Development. In addition to major consultancy projects, several department offer short term testing services which benefit the local industry to a significant extent. Most of our departments are poised for radical change in infrastructure facility to meet the demands of a modern technological institution.

In order to promote research activity by the students, the Institute has enhanced the course credit associated with B. Tech. Project. The Institute has instituted a Gold Medal to the best B. Tech Project. I am happy to announce that the this year's best B. Tech. Project award goes to Sri Subrat Nayak and Sri Debadatta Das of the Electrical Engineering Department. I congratulate the candidates, and their supervisor Prof. P. K. Nanda for their excellent work.

ACADEMIC REFORMS

During the past one year, we have introduced a new and flexible academic system that is comparable to that in the best engineering Institutes in India and abroad. Some of the key features of the new system are reduced student contact hours giving them more time for self learning, greater emphasis on project work, continuous evaluation of performance, introduction of new and innovative courses by faculty and a student feedback system on courses. Each programme is a judicious mixture of compulsory and optional subjects, the latter being opted either from within the department or outside. Student intake in many undergraduate and postgraduate courses is being rationalised to reflect the market demand and more optimum utilisation of resources. The intake strength in Computer Science & Engineering as well as in Electronics and Communication Engineering

has been increased to sixty from thirty. The increase in the intake strength in Chemical, Civil and Metallurgical and Materials Engineering departments are also in the process of active consideration.

Our central library is shaping into a modern facility. Many recent and new books and periodicals, both current and back volumes, have been added to the collection. The entire book and periodical catalogue, as well as the circulation system have been computerised with introduction of optical bar coding and use of the Libsys software.

Qualified graduates and postgraduates with skills not only in the specialised professional subjects, but also in broad areas of computer software and industrial management are the products of this Institute. We have always strived towards finding the proper market for this product through campus and off campus recruitment drives. The Training and Placement Department of the Institute performs this task under the guidance of the Professor in-charge. Our Institute has a good track record of student placement. I am proud to say that our graduates and postgraduates are highly rated and respected in both core and software industry. This year, till date, a total of 46 companies including big names such as CTS, Infosys, Accenture, L&T, Jindal Steel and Sterlite Group of Industries have visited our institute for campus recruitment. About 15 students have also been selected by their 'Dream Companies'. I am happy to inform you that a total three hundred sixty two students have already been placed in reputed organizations and more are expected to be placed in the coming months. We are sure to achieve a total placement of our students before they graduate.

THE NEW COMPUTING INFRASTRUCTURE

With a liberal plan grant from the Government, we have substantially improved the equipment

infrastructure in the Institute. I take special pride in highlighting the quantum jump in the computational capabilities. Every faculty member has been given a high end PC on his desk for research and communication. Every department has been given a computer laboratory of proportionate size for student use. In addition, the Central Computer Centre has built two large computing halls which can accommodate nearly hundred fifty students. All the facilities are open round the clock, depending on the need of usage. Each hall of residence have been provided with a set of thirty thin clients connected to servers located in the Computer Centre to meet the academic demands of the students. All the rooms of the new 400-seater Homi Bhabha Hall for men is being connected to the institute LAN and plans are on for providing network connection to every room in other hostels. These intelligent thin clients are provided with embedded Windows – XP operating system and are connected to the servers through high speed optical fibres.

All computers in the academic area, halls of residence and guest houses have been connected in a local area network by a high speed (100Mbps) optical fibre backbone and a set of very high speed (up to 64 gigabit per second) switches distributed around the campus. The server infrastructure consists of nearly 15 servers, each with multiple Xeon processors, Storage Across Network (SAN) and Network Attached Storage (NAS), one Terra Byte of Fibre channel storage and Ultrium tape drive of 4 tera-Byte capacity. This composite infrastructure provides central storage and high speed computing facility to the students and the faculty. The institute has also procured Microsoft Site License for MS Windows XP desktop operating system, MS office XP and MS Visual Studio. In addition, we have set up site licence for basic technical software such as MATLAB, Autodesk Mechanical desktop, Fluent CFD package, and many more.

The institute is connected to the outside world through a 4Mbps dedicated Internet link from the STPI Rourkela which operates round the clock. This link has helped us to provide uninterrupted Internet facility to all students, faculty and staff. We are in the process of upgrading it to an 8Mbps link in the short run and propose to double it further when the demand picks up. The internet connection also helps the outside world get access to our Institute through our Internet web site. We also have plan to introduce an identification management solution that provides uniform login for mail server, linux servers, windows servers, file servers and application servers located in the campus. Shortly we will set up an autoCAD laboratory and a training laboratory in the computer centre. Proposals are on for setting up laboratories in collaboration with industries like Intel.

In addition to the state of the art computer network, the internal communication system of the institute has been improved through installation of a modern telephone network. A 1200-line Siemens telephone exchange and connections to all faculty desks, laboratories, halls of residence and faculty residence have created a truly integrated campus. Direct Inward Dialling (Level DID) has been implemented for easy access from outside.

CONFERENCES, SEMINARS AND WORKSHOPS

The institute fully appreciates that knowledge grows through discussion, and therefore has adopted a conscious policy for encouraging organization of and participation in conferences, workshops and symposia. During the past one year, different departments have organized seminars and conferences to bring together industry, academia and research organizations to a common platform for sharing new ideas, problems and results of research.

This year we had a National Seminar on “Women in Science and Technology: Issues and Prospects” organized by the Department of Humanities and Social Sciences in January 2005. During the same month, we also had two more seminars. The Department of Mechanical Engineering organized a seminar on “Emerging Trends in Concurrent Engineering” and the Department of Civil Engineering hosted the National Seminar on “Advances in Geotechnical Engineering”. The other conferences that were organized in 2005 were “Technological Advancements and Environmental Challenges in Mining and Allied Industries in the 21st Century” by the Department of Mining Engineering, “Advances in Road Transportation” by the Department of Civil Engineering, “Waste Management in Chemical and Allied Industries: A Vision 2020” by the Department of Chemical Engineering, “Recent Advances in Manufacturing Technologies” and “Recent Advances in Industrial Tribology and Maintenance” by the Department of Mechanical Engineering.

I am also proud to say that our Institute has set up one of the most modern and comprehensive set of continuing education rules in the country and we are looking forward to making a strong impact in the area of continuing and distance engineering education.

CAMPUS DEVELOPMENT

The newly developed look of the NIT campus with regard to security, cleanliness, hygiene and beautification need constant supervision, up-gradation and development. Thanks to the dedicated work by the entire campus community, the campus, particularly the academic area now have green lawns, gardens and flowers. The demand of electricity in the academic as well as residential areas has increased over the fast few years. In order to overcome the problem of power shortage, new transformers have been procured, overhead lines

are giving way to underground cables and the state electricity authorities have been approached for improving the quality of power supplied. The academic area, campus and hostel area have been better illuminated. The student hostels have also received a face lift. The renovation work of the kitchens of all the halls has been completed. I am happy to announce that the construction of new 400-seater Homi Bhabha Hall for boys is on a war-footing and I am expecting it to be operational before the next academic session. The construction of a new floor in Hostel-6 has also been initiated. This will enable many more students to stay inside the campus and pursue active research. We are also working towards a formal facility for married student accommodation.

The renovated Visitors’ House has now a better look and improved board and lodging facility. The construction of a new Guest House block is also underway and I can assure the distinguished guests of today’s function better hospitality during the next convocation of NIT.

STUDENT ACTIVITIES

The students of NIT Rourkela have been known for excellence in extra-academic activities. The Student Activity Centre has been revitalised by adoption of a new constitution, which has helped create a congenial atmosphere among the student community and has provided a platform to bring out latent talent among the students. The Technical Cell of the Student Activity Centre has coordinated the 3rd Annual National Level Student Symposium, CONFLUENCE 2006 involving all the departments during January 12 – 15, 2006. Students from far off Institutes actively participated in the seminars, technical games and model and software contests. We have also organized the Annual Sports Meet during November 11 – 12, 2005 and Inter NIT Basketball and Lawn Tennis Tournaments during

January 19 – 21, 2006, in which our boys team won the Runners up prize in Basketball and girls team won the Championship in Lawn Tennis game. We had also hosted the Inter NIT Basketball and Lawn Tennis Championship during February 2005, where our girls won the Runners up prize for both the events. Another major event on student activity will be the Spring Cultural Festival scheduled in February 2006.

Our students have participated in sports meets organized by sister institutions. The institute cricket and table tennis teams participated in the Inter NIT Tournament held at VNIT Nagpur. Our students also participated in the Cricket, Football, Volleyball and Chess games in the sports meet held at IT BHU and won the Championship in Chess. I congratulate all our students for their achievement and wish them success in technical, sports and cultural events during the years to come.

OUR ALUMNI

Our alumni have always played a significant role in taking the institute to new heights. We are planning to bring out a quarterly electronic alumni newsletter highlighting the achievements of alumni, faculty and students. Many of our distinguished alumni have accepted responsible assignments which have brought glory to our institute. Prof. Damodar Acharya, an alumnus of 1970 batch of Mechanical Engineering, has been appointed Chairman of the All India Council of Technical Education. Prior to this, he was Vice-Chancellor of Biju Patnaik University of Technology, Orissa. Mr. Chittaranjan Ranjan Pradhan, an alumnus of 1970 batch Electrical Engineering, has been appointed the Chairman and Managing Director of NALCO, Bhubaneswar. Mr. Drona Rath, an alumnus of 1971 batch of Mechanical Engineering, has been appointed as full-time Chairman and Managing Director of MECON Ltd., Ranchi. Prof. Laxmi Narayan Bhuyan, an alumnus of 1972 batch of Electrical Engineering,

currently a Professor of Computer Science and Engineering at the University of California, USA has been appointed to serve as the Editor-in-Chief of the Prestigious IEEE Transactions on Parallel and Distributed Systems. Recently, the 1980 batch alumni celebrated the Silver Jubilee of their graduation in our institute and have created a fund for construction of a permanent office on campus for the NIT Alumni Association.

GRADUATES OF THE YEAR

In a short while from now, I shall have the pleasure of conferring the degrees to 370 B. Tech, 66 M. Tech, 30 MCA and 24 M. Sc. students. I shall also be conferring the Doctor of Philosophy Degree on six candidates. I will be happy to announce the names of the recipients of 36 different medals and prizes for excellence in various academic programmes. I personally congratulate the two Institute Gold Medallists: Miss Rumki Bhaduri, the Best Graduate of the year and Sri K. SomaSekhar, the Best Post Graduate. I also congratulate Sri Piyush Kumar, a graduate in Electrical Engineering, who has been conferred the coveted Professor Bhubaneswar Behera Gold Medal for the Best All-rounder of 2005 batch. My blessings and special greetings go to Sri Subrat Nayak and Sri Debdatta Das for receiving the Institute Gold Medal for the best B Tech project. I congratulate winners of the silver medals and all the graduating students on the successful completion of their mission of obtaining a well deserved degree from this wonderful Institute. I share this moment of joy and pride with the parents of our graduates; your child is a special person who has proven his or her worth by earning a degree from this prestigious institution. This degree, however, confers on him a special responsibility to lead the nation on the path of progress. We shall all be looking forward to his achievement in future.

The students graduating from prestigious engineering institutions during this decade are a special lot. They are entering the job market when our country is poised for quantum growth in technological capabilities and industrial output. Unlike many of their predecessors they will face global competition. They will play a significant role in the industrial scenario not only of our nation but of the whole world. They will have to perform a multitude of tasks at their workplaces which they were not taught in

college. In this age of competition they have to continuously work hard and learn newer things to be successful in their fields. Though there may be many ups and downs, I am confident that our students will have the capability and the dedication to stand up to the situation and do their bit in creating the new India. Before closing, please allow me to share with you a short quotation by Helen Keller, the legendary educator of the Deaf and the Blind, which I feel will be befitting to the occasion:

"I am not afraid of storms, for I am learning how to sail my ship."

I expect my students to conquer the strongest of storms in the sea of industry and global competition. My best wishes shall remain with you for ever.

JAI HIND

Rourkela
28th January, 2006

Sunil Kumar Sarangi
Director

DEGREE RECIPIENTS

DOCTOR OF PHILOSOPHY

Department & Candidate's Name

Title of the Thesis

CHEMISTRY

Mahuya Dasgupta Adak

Environmental Pollution and its Impact in the Vicinity of Mini Cement Plants

Prakash Chandra Mishra

Some Aspects of the Quality of Water in and around Rourkela

Shrikanta Naik

Studies on Pollution Status of Bondamunda Area of Rourkela Industrial Complex

CHEMICAL ENGINEERING

Abanti Sahoo

Mixing and Segregation Characteristics of Binary Mixtures of Irregular Particles in Promoted Gas-Solid Fluidized Bed

ELECTRICAL ENGINEERING

Susmita Das

Adaptive Equalization of Communication Channels using ANN Techniques

ELECTRONICS AND COMMUNICATION ENGINEERING

Sukadev Meher

Development of Some Novel Nonlinear and Adaptive Digital Image Filters for Efficient Noise Suppression

MASTER OF TECHNOLOGY

CHEMICAL ENGINEERING

(Coal Chemicals and Fertilizers)

Sujata Devi
Basant Kumar Sahoo
Ambati Kirankumar
Swayambhuba Misra
Lopamudra Panda
Manish Kumar

CIVIL ENGINEERING

(Structural Engineering)

Srinivaskiran K
Tarakant Dwivedy
Matruprasad Behera
Butcheswara Rao Pandi
Nigamananda Adhikari
Sharmistha Das

*(Soil Mechanics &
Foundation Engineering)*

Biranchi Narayan Panda
Bhaskara Rao
Satyajit Patel
Bhanu Shankar Sahoo
R Venugopal
Binaya Kumar Panigrahi

PART TIME

*(Soil Mechanics &
Foundation Engineering)*

Debashis Mahapatra
Uma Charan Padhy
Ujjaleswar Behera

COMPUTER SCIENCE & ENGINEERING

(Computer Science)

Ajaya Kumar Nayak
K B Raja Raman
Ch Vijaykrishna

Mistry Ashokkumar Vrajlal
Vamsi Krishna Peddina
Kalaga Gayatri
Dillip Ranjan Nayak
Rajakalyan Ram Sunkara
Kundurthy Sujatha
Debasish Roul

ELECTRICAL ENGINEERING

(Electronic Systems & Communication)

Durgarao Meka
Achinta Pradhan
Prakash Chandra Tah
B Raveendar
Tarani Sen Mahanta
Arjuna Rao Anuku
Satyabrat Biswal
Swagatika Sahoo
Harish Kumar Sahoo
Janmejaya Panda
Hari Narayan Pratihari

PART TIME

(Industrial Power Control & Drives)

Purajit Mishra
Susanta Kumar Patnaik

ELECTRONICS & COMMUNICATION ENGINEERING

(Telematics & Signal Processing)

Shakti Prasad Rath
Priyabrata Nayak
Keshava Reddy Yasa
Rashmita Mishra
Abhilasha Sakalkar
Arun Kumar Panda
Anubhav Sinha
Nihar Ranjan Panda
Sudhansu Kumar Mishra
Sangeeta Sahoo
Rashmi Routray

MECHANICAL ENGINEERING

(Production Engineering)

Soma Sekhar K
Dwivedy Maheshwar
Ganesh Malla
Devasmita Gantayet
Vinay Kumar
Manabhanjan Sahoo
Pothuru Somasekhar
Nagasuri Sreeramabrahmam
Smruti Ranjan Mohanty
Amar Patnaik
Manasi Manjari Mohanty

MASTER IN COMPUTER APPLICATIONS

First Class

Pradeep Kumar Dey
Amrit Raj
Amit Kumar Upadhayay
Abraham Ekka
Alok Kumar Sonu
Ajit Kumar Sahu
Archana Mohanty
Biswajeet Pandab
Chinmaya Kumar Pahi
Devendra Anurag
Janmejaya Panda
Mohamad Jahangir
Manas Ranjan Das
Mritunjay Kumar
Niharika Pradhan
Nilanjan Lahiri
Pankaj Mishra
Pitambar Minz
Roshan Kumar
Ritu Ranjan
Sibaranjan Pattnayak
Saswati Dash
Sumita Das
Sumit Ranjan
Vikash Sharma

Vivek Kumar
Varun Dixit
Pradeep Kumar Kar
Ranjan Kumar Sinha
Sanghamitra Behera

MASTER OF SCIENCE

CHEMISTRY

First Class

Rudra Prasanna Nayak
Arundhati Nayak
Sangram Keshari Dash
Dillip Kumar Bhadra
Supriya Nayak
Deepak Behera
Saroja Kumar Barik
Maheswata Panda

MATHEMATICS

First Class

Shakuntala Panda
Amit Kumar Acharya

Second Class

Tapaswini Mahapatra
Rupali Kumari Jena

PHYSICS

First Class

Arundhati Chakrabarti
Payal Gupta
Satyajit Sahu
Niroj Kanta Raut
Shibasish Mishra
Shailabala Panda
Baisakhi Chatterjee
Sunita Pradhan
Chaudhuri Debashisa Jena
Hiranmayee Dash
Ila Singh
V Lavanya

BACHELOR OF TECHNOLOGY

CERAMIC ENGINEERING

First Class with Honours

Naveen S
Sambarta Ray

First Class

Aparajita Pramanik
Purna Chandra Behera
Rahul Mishra
Vikrant Bhardwaj
Muzamil Nazir
Piyush Chandra Pandey
Sagarika Brahma

Second Class

Pradeep Kumar Kispotta

CHEMICAL ENGINEERING

First Class with Honours

Debi Prasad Dash
Bibhuranjan Senapati
Sunanda Panda
Tapasya Mohanty
Subhash Kaipa
Rohit Maheshwari
Arun Kumar Mahapatra
Debabrata Pruseth
Keshapragada Subash
Siddhartha Mahapatra

First Class

Chittaranjan Hota
Jaya Prakash Dora
Khirode Kumar Nayak
Manasi Roy
Rajesh Kumar Sethi
Sidharth Mishra
Sudeep Mukherjee
Swarnaprava Ray
V Sudha
Manish Mohandas
Sk Faruque Ahmed
Vishwanath V Channal

Ghanshyam
Gupta Tushar Somprakash
Pooja Malik
Amit Nigam
N Balaji Karthik
Rakesh Kumar
Gayan Ranjan Dutta
Akshya Kumar Maharathy
Viju B
Soohag Mohanty

Second Class

Nair Ratheesh Gopalan
Yajnik Pranav Rajendra Kumar
Jatinder Kumar
Rahul Nigam
Ramchandra Majhi
Madhu Babu Uchula
Parvinder Sahota
Deepak Singh

CIVIL ENGINEERING

First Class with Honours

Pradeep Kumar Sahu
Prachismita Sahu
Soumya Mohapatra
Soham Ghosh
Nishant Kumar Aggarwal
Jagannatha Mahanta
Debasis Das
Narasingha Mohanta

First Class

Bishwes Das
Chandra Bhan Singh
Minarani Palei
Vivek Parida
Aritri Bhowmik
Palash Dutta
Jugraj Meena
Koutilya Kumar Gogineni
Subramanyam Reddy K
Patil Sandip Ashokrao
Anand Dwivedi
Uphar Gandhi

This year we had a National Seminar on “Women in Science and Technology: Issues and Prospects” organized by the Department of Humanities and Social Sciences in January 2005. During the same month, we also had two more seminars. The Department of Mechanical Engineering organized a seminar on “Emerging Trends in Concurrent Engineering” and the Department of Civil Engineering hosted the National Seminar on “Advances in Geotechnical Engineering”. The other conferences that were organized in 2005 were “Technological Advancements and Environmental Challenges in Mining and Allied Industries in the 21st Century” by the Department of Mining Engineering, “Advances in Road Transportation” by the Department of Civil Engineering, “Waste Management in Chemical and Allied Industries: A Vision 2020” by the Department of Chemical Engineering, “Recent Advances in Manufacturing Technologies” and “Recent Advances in Industrial Tribology and Maintenance” by the Department of Mechanical Engineering.

I am also proud to say that our Institute has set up one of the most modern and comprehensive set of continuing education rules in the country and we are looking forward to making a strong impact in the area of continuing and distance engineering education.

CAMPUS DEVELOPMENT

The newly developed look of the NIT campus with regard to security, cleanliness, hygiene and beautification need constant supervision, up-gradation and development. Thanks to the dedicated work by the entire campus community, the campus, particularly the academic area now have green lawns, gardens and flowers. The demand of electricity in the academic as well as residential areas has increased over the fast few years. In order to overcome the problem of power shortage, new transformers have been procured, overhead lines

are giving way to underground cables and the state electricity authorities have been approached for improving the quality of power supplied. The academic area, campus and hostel area have been better illuminated. The student hostels have also received a face lift. The renovation work of the kitchens of all the halls has been completed. I am happy to announce that the construction of new 400-seater Homi Bhabha Hall for boys is on a war-footing and I am expecting it to be operational before the next academic session. The construction of a new floor in Hostel-6 has also been initiated. This will enable many more students to stay inside the campus and pursue active research. We are also working towards a formal facility for married student accommodation.

The renovated Visitors’ House has now a better look and improved board and lodging facility. The construction of a new Guest House block is also underway and I can assure the distinguished guests of today’s function better hospitality during the next convocation of NIT.

STUDENT ACTIVITIES

The students of NIT Rourkela have been known for excellence in extra-academic activities. The Student Activity Centre has been revitalised by adoption of a new constitution, which has helped create a congenial atmosphere among the student community and has provided a platform to bring out latent talent among the students. The Technical Cell of the Student Activity Centre has coordinated the 3rd Annual National Level Student Symposium, CONFLUENCE 2006 involving all the departments during January 12 – 15, 2006. Students from far off Institutes actively participated in the seminars, technical games and model and software contests. We have also organized the Annual Sports Meet during November 11 – 12, 2005 and Inter NIT Basketball and Lawn Tennis Tournaments during

First Class

January 19 – 21, 2006, in which our boys team won the Runners up prize in Basketball and girls team won the Championship in Lawn Tennis game. We had also hosted the Inter NIT Basketball and Lawn Tennis Championship during February 2005, where our girls won the Runners up prize for both the events. Another major event on student activity will be the Spring Cultural Festival scheduled in February 2006.

Partha Sarathi Purohit
Our students have participated in sports meets
Satish Sahoo
organized by sister institutions. The institute cricket
Shalendra Kumar Bodra
team has participated in the Inter NIT
Shamlee Goomilika
Tournament held at VNIT Nagpur. Our students also
Shruti Mishra
participated in the Cricket, Football, Volleyball and
Rohini Nayak
Chess games in the sports meet held at IT BHU and
Vardha Chhali Marshipin Chh.
Vijendra Sharma
I congratulate all our students on their achievement and wish them
Ajit Kumar Sah
success in technical, sports and cultural events during
Tuhin Kumar Guha
the years to come.
Sandeep K

SUREWADOMNI

P Vikram
Biddulph University has always played a significant role in
to grow the Institute Subhasrao. We are planning
Priranka Gupta
to bring out a quarterly electronic alumni newsletter
Ravindra Welurkar
highlighting the achievements of alumni, faculty and
Dudle Hanmant Gangaram
students. Many of our distinguished alumni have
Ashankar Neeraj Purushottam
accepted responsible assignments which have
Sahare Kalyan Prakashrao
brought glory to our institute. Prof. Damodar
Vikas Kumar
Acharya, an alumnus of 1970 batch of Mechanical
Sahinara Khatun
Engineering, has been appointed Chairman of the
Anup Philip Zachariah
All India Council of Technical Education. Prior to
Abhishek Saxena
this, he was Vice-Chancellor of Biju Patnaik
Sanjeev Kumar
University of Technology, Orissa. Mr. Chittaranjan
Balan Madhan, an alumnus of 1970 batch Electrical
Bhineekar, Chanchen Nilspol
Vire Lal Singh
Managing Director of NALCO, Bhubaneswar. Mr.
Abhimanyu Kumar
Mona Rath, an alumnus of 1971 batch of
Sunderam Ram
Mechanical Engineering, has been appointed as full-
Rajib Bhatta
time Chairman and Managing Director of MECON
Sumedha Suchibrata Sahu
Ltd., Ranchi. Prof. Laxmi Narayan Bhuyan, an
Umesh Mahapatra
alumnus of 1972 batch of Electrical Engineering,

Second Class

Second Class
currently a Professor of Computer Science and
Engineering at the University of California, USA has
been appointed to serve as the Editor-in-Chief of
the Prestigious IEEE Transactions on Parallel and
Distributed Systems. Recently, the 1980 batch
alumni celebrated the Silver Jubilee of their
graduation in our institute and have created a fund
for establishing a permanent office on campus
for the IIT Roshan Association.
Pardeep Singh

GRADUATES OF THE YEAR

Ramteke Manish Shiram
 IRashid Waleed Khan I shall have the pleasure
 of conferring the degrees to 370 B. Tech, 66 M.
 Tech, 30 MCA and 24 M. Sc. students. I shall also
 be conferring the Doctor of Philosophy Degree on
 ELECTRONICS AND happy to announce the
 INSTRUMENTATION ENGINEERING
 prizes for excellence in various academic
 classes with Honours

programmes, I personally congratulate the two

Institute Gold Medalists: Miss Rumki Bhaduri, the
 Basanta Kumar Dash
 Best Graduate of the year and Sri K. SomaSekhar,
 Biswaji Pattnayak
 the Best Post Graduate. I also congratulate Sri Piyush
 Piplaiyan Nayak in Electrical Engineering, who
 has been conferred the coveted Professor
 Simi Mohanty
 Subhankar Behera Gold Medal for the Best All-
 Smita Khandai
 founder of 2005 batch. My blessings and special
 Subhrakanta Moharana
 greetings go to Sri Subrat Nayak and Sri Debdata
 Swagatika Pradhan
 Das for receiving the Institute Gold Medal for the
 Vinod Kumar Singh
 best B.Tech project. I congratulate winners of the
 Akshay Kumar
 Silver medals and all the graduating students on the
 Anurag Gupta
 completion of their mission of obtaining a
 well deserved degree from this wonderful Institute.
 Binod Bibari Panda
 share this moment of joy and pride with the parents
 Jyoti Sankar Sahu
 of our graduates; your child is a special person who
 First Class
 has proven his or her worth by earning a degree
 Achint Debbari
 from this prestigious institution. This degree,
 Bidhan Bhattacharya
 will confer on him a special responsibility to
 Debashish Sahoo
 lead the nation on the path of progress. We shall all
 L.V. Sessa-Giri
 be looking forward to his achievement in future.

Prakash Chandra Patra
 Rohit Dharupta
 S Anand Bhengra
 Shashi Shekhar
 Sujata Kujur
 Shirshendu Roy
 Rajosree Mallik
 Deepak Sharma
 Biradar Pramod Trimbakrao
 Chaturvedi Anuj Arunkumar
 Prakash E
 Rajnish Kumar

Second Class

Bharati Bhoi
 Anand Kumar
 Ripan Kumar Acharia
 Surendra Ray

MECHANICAL ENGINEERING

First Class with Honours

Avijit Acharya
 Deepak Kumar Patel
 Sanja Samirana Panda
 Saumya Ranjan Panigrahy
 Anupama Dash
 Debashraya Padhy
 Indu Sahoo
 Kshirabdhii Tanaya Sahu
 Lokanath Mohanta
 Mahendra Kumar Paramanik
 Mantu Baishya
 Neetu Agrawal
 Prem Prakash Dalua
 Sabyasachi Satapathy
 Satyanarayan Das
 Saswat Sahoo
 Sisir Kumar Panda
 Sonali Swatika Mishra
 Subhankar Sahu
 Suhas Saha
 Sunita Pal
 Tusar Kanta Sahoo
 Upendra Kumar Pathy

Inder Jeet Singh
 Nashib Kaffle
 Maneesh Sharma
 Vivek Kumar Singh
 Prashant Kumar Raj
 Bidhan Chandra Sahu
 Sudhansu Sekhar Das

First Class

Abhijit Pandia
 Ajharani Hansdah
 Dillip Kumar Munda
 Ganesh Kumar Khadia
 Gautam Siddharth Talukdar
 Prasenjit Basak
 Rajiv Ranjan Singh
 Ramakant Pradhan
 Rohit Garg
 Rutuparna Sarangi
 Shakti Prasad Pradhan
 Shampa Sarkar
 Sheepa Panda
 Sribastav Mohapatra
 V Gopinath
 Yugantar Ghadai
 Sandeep Roy
 Bhushan Chitaley
 Ram Mohan K
 Anshul Upadhyay
 Deepak K B
 Dekarla Bhaskar Rao
 Abhishek Kumar Jain
 Omprasad B
 Sanjib Kumar Dey
 Piyush Upadhyay
 Vikas Sharma
 Amit Verma
 Arun Kumar Rai
 V Karthikeyan
 Md Kalam Khan
 Pradipta Ranjan Lenka
 Bikash Kumar Agrawala
 Alok Dhari Singh
 Manjit Singh
 T Santosh Kumar
 B Karthick

Second Class

Dilip Ku Bage
Avinash B
P Ramesh
Kiran N
Siddharth Shankar Hazra
Shalein Chauhan
Jitendra Kumar Mirdha
Swarup Kumar Choudhury
Shantilata Mahali
Shreedeeep J Majumder

**METALLURGICAL & MATERIALS
ENGINEERING**

First Class with Honours

Soubhagya Ranjan Mohapatra
Anurag Mohanty
Atulya Pradhan
Jagannath Patro
Padhy Smita
Chinmaya Kumar Sarangi
Arpita Upadhyaya
Lagnajit Patnaik

First Class

Pranaya Ranjan Dalai
Manas Kumar Panda
Md Qaisar
Priyanka Parija
Sumeet Champatiroy
Suprava Pradhan
Swetapadma Mishra
Sandhyabati Majhi
Saroj Kumar Amat
Sunita Dutta
Tamanna Routray
Abhishek Sinha
Piyush Maheshwari
Gourab Seal
Mohammed Basha Tappa
Yayati Bhagwat
Chidrawar Gururaj
Sandeep Singh
Vijayendra Singh

Vikash Kumar
Raghavendra Mishra
Chandra Dutt
Vishal Bhardwaj
Arun V
Susil Kumar Sahoo
Ajay Ketan Upadhyaya
Debendra Kumar Rout
Jeetendra Kumar Rath
Maheswar Behera
Sumit Agarwal
Ashrit Kumar
Pravas Ranjan Behera

Second Class

Debananda Beshra
Madhabi Lata Bariha
Sanjita Xess
Sushree Shrabani Martha

MINING ENGINEERING

First Class with Honours

Priyadarshi Sandeep Kumar Bal
Sivaprasadsingh Sirivell

First Class

Anil Kumar Marandi
Manoj Kumar Behera
Nillip Malik
Surjit Sharma
Nitin Laddha
Nurendra Kumar
B Vinoth
Bendangnuksung
Manish Kumar Sharma

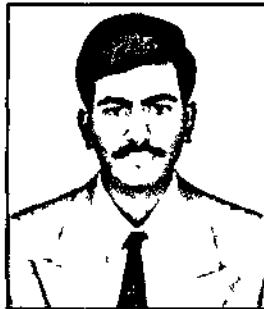
Second Class

Santosh Kumar

MEDALS AND PRIZES

**MEDALS AND PRIZES
INSTITUTE GOLD MEDALS**

BEST POSTGRADUATE (M. TECH.)



Soma Sekhar K
Department of Mechanical Engineering

BEST GRADUATE (B. TECH.)



Rumki Bhadury
Department of Electrical Engineering

**PROF. BHUBANESWAR BEHERA GOLD MEDAL
FOR BEST ALL-ROUNDER OF OUTGOING BATCH OF 2005**



Piyush Kumar
Department of Electrical Engineering

**INSTITUTE GOLD MEDAL FOR
THE BEST B.TECH. PROJECT FOR THE YEAR 2005**



Subrat Nayak
Department of Electrical Engineering



Debadatta Das
Department of Electrical Engineering

Title of the Project:

“Mobile Robots: The Voyage from a Manually Operated Vehicle to an Autonomous Robot”

INSTITUTE SILVER MEDALS

1. UNDERGRADUATE COURSES (B. TECH.)

Ceramic Engineering	: Naveen S
Chemical Engineering	: Debi Prasad Dash
Civil Engineering	: Pradeep Kumar Sahu
Computer Science and Engineering	: Nilam Jyoti Sharma
Electrical Engineering	: Rumki Bhadury
Electronics and Instrumentation Engineering	: Manoranjan Satapathy
Mechanical Engineering	: Avijit Acharya
Metallurgical and Materials Engineering	: Soubhagya Ranjan Mohapatra
Mining Engineering	: Priyadarshi Sandeep Kumar Bal

2. POST GRADUATE COURSES:

M. TECH.

Chemical Engineering (Specialization: Coal Chemicals & Fertilizers)	: Sujata Devi
Civil Engineering (Specialization: Structural Engineering)	: Srinivaskiran K
Civil Engineering (Specialization: Soil Mechanics & Foundation)	: Biranchi Narayan Panda
Computer Science & Engineering (Specialization: Computer Science)	: Ajaya Kumar Nayak
Electrical Engineering (Specialization: Electronic Systems & Communication)	: Durgarao Meka
Electronics & Communication Engineering (Specialization: Telematics & Signal Processing)	: Shakti Prasad Rath
Mechanical Engineering (Specialization: Production Engineering)	: Soma Sekhar K

M. C. A.	: Pradeep Kumar Dey
----------	---------------------

M. Sc.

Chemistry	: Rudra Prasanna Nayak
Mathematics	: Shakuntala Panda
Physics	: Arundhati Chakrabarti

ENDOWMENT MEDALS AND AWARDS

1. **Institution of Engineers (India) Award** : Debi Prasad Dash
(*Best Graduate of Chemical Engineering*)
2. **Institution of Engineers (India) Medal** : Avijit Acharya
(*Best Graduate of Mechanical Engineering*)
3. **Institution of Engineers (India) Medal** : Priyadarshi Sandeep Kumar Bal
(*Best Graduate of Mining Engineering*)
4. **Institution of Engineers (India) Award** : Rumki Bhadury
(*Best Graduate of the Institute other than Chemical Engineering*)
5. **ISTAM Medal** : Rumki Bhadury
(*Best Graduate of the Institute*)
6. **Metallurgical Engineering Association Medal** : Soubhagya Ranjan Mohapatra
(*Best Graduate of Metallurgical and Materials Engineering*)
7. **Pranab Memorial Medal** : Avijit Acharya
(*Best Graduate of Mechanical Engineering*)
8. **Prof. Ashok Kumar Mohanty Medal** : Soubhagya Ranjan Mohapatra
(*Best Graduate of Metallurgical and Materials Engineering*)
9. **Prof. Rajaraman Award** : Nilam Jyoti Sharma
(*Best Graduate of Computer Science and Engineering*)
10. **Saurav Ranjan Kar Memorial Medal** : Rumki Bhadury
(*Best Graduate of the Institute*)
11. **Sugat Kishore Mall Memorial Medal** : Rumki Bhadury
(*Best Graduate of Electrical Engineering*)

ABOUT NIT ROURKELA

SUCCESSIVE LIST OF CHAIRMEN, BOARD OF GOVERNORS REGIONAL ENGINEERING COLLEGE, ROURKELA

		From	To
1	Shri Biju Patnaik, Chief Minister, Govt. of Orissa	15-08-1961	19-12-1963
2	Shri Biju Patnaik, Chairman, Planning Board, Govt. of Orissa	20-12-1963	28-03-1965
3	Shri Sadashiva Tripathy, Chief Minister, Govt. of Orissa	14-04-1965	07-03-1967
4	Dr. Haribandhu Mohanty, Technical Advisor to Govt. of Orissa	07-10-1967	06-10-1973
5	Shri K. T. Satarwala, Advisor to Governor of Orissa	07-10-1973	03-05-1974
6	Shri Kanhu Charan Lenka, Minister of Industries, Planning & Co-ordination, Govt. of Orissa	04-05-1974	16-02-1976
7	Shri Kanhu Charan Lenka, Minister of Industries, Govt. of Orissa	14-01-1977	30-04-1977
8	Shri Harish Chandra Buxipatra, Minister of Industries, Mining, Geology & Rural Department, Govt. of Orissa	06-07-1977	18-02-1980
9	Shri Kishore Chandra Patel, Minister of States for Industries, Govt. of Orissa	12-08-1980	08-03-1985
10	Shri S. B. Mishra, IAS, Commissioner-cum-Secretary, Industries Dept., Govt. of Orissa	06-06-1985	03-01-1986
11	Shri Jadunath Das Mohapatra, Minister of Education & Youth Services, Govt. of Orissa	04-01-1986	29-10-1986
12	Shri Niranjana Patnaik, Minister of Industries, Science, Technology & Environment, Govt. of Orissa	30-10-1986	16-11-1989
13	Shri S. B. Mishra, IAS, Secretary, Industries Department, Govt. of Orissa	17-11-1989	12-08-1990
14	Shri Dilip Ray, Minister of Industries, Govt. of Orissa	13-08-1990	03-05-1996
15	Shri Niranjana Patnaik, Minister of Industries, Govt. of Orissa	04-05-1996	22-07-1999
16	Dr. Giridhar Gomang, Chief Minister, Govt. of Orissa	23-07-1999	10-03-2000
17	Shri Kanak Vardhan SinghDeo, Minister of Industries, Govt. of Orissa	11-03-2000	25-06-2002

NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA

		From	To
1	Shri Kanak Vardhan SinghDeo, Minister of Industries & Public Enterprise, Govt. of Orissa	26-06-2002	01-09-2002
2	Dr. Bansidhar Panda, Chairman & Managing Director, IMFA Group of Industries, Bhubaneswar	02-09-2002	Continuing

SUCCESSIVE LIST OF DIRECTORS PRINCIPALS OF REGIONAL ENGINEERING COLLEGE, ROURKELA

		From	To
1	Shri B. Mishra	15-08-1961	11-02-1962
2	Prof. Bhubaneswar Behera	12-02-1962	19-07-1971
3	Prof. H. S. Nagabhushanaiah	20-07-1971	30-08-1972
4	Prof. R. Mishra	31-08-1972	30-08-1973
5	Prof. H. S. Nagabhushanaiah	31-08-1973	16-10-1974
6	Prof. Somnath Mishra	17-10-1974	31-01-1996
7	Prof. Ashok Kumar Mohanty	01-02-1996	30-09-2001
8	Prof. Gopendra Kishore Roy	01-10-2001	25-06-2002

DIRECTORS OF NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA

		From	To
1	Prof. Gopendra Kishore Roy	26-06-2002	06-05-2003
2	Prof. Sunil Kumar Sarangi	07-05-2003	28-03-2005
3	Prof. Bijaya Kumar Rath	29-03-2005	02-11-2005
4	Prof. Sunil Kumar Sarangi	03-11-2005	Continuing

THIRD CONVOCATION COMMITTEE

CORE COMMITTEE

Prof. Sunil Kumar Sarangi, Chairman

Prof. G. K. Roy	Prof. B. Pradhan
Prof. K. K. Mishra	Prof. A. K. Panda (MM)
Prof. J. K. Satapathy	Sri S. K. Upadhyay
Prof. R. C. Behera	Prof. S. K. Rath, <i>Professor-in-Charge, Convocation</i>

WORKING COMMITTEES

Committee	Convenor	Members
Certificate and Awards	K. K. Mishra	A. K. Pradhan, D. K. Purohit, B. Acharya, M. D. Mishra, T. K. Sarangi, B. M. Das, K. Biswal, G. C. Dash, Pramila Das, M. K. Das
Medals	A. K. Panda (MM)	B. Pradhan, R. K. Patel, P. K. Roy, S. K. Upadhyay, S. C. Prusty, A. K. Patnaik, B. C. Patnaik
Convocation Dress	P. K. Roy	U. K. Mishra, K. C. Biswal (CE)
Publication	S. Adak	S. Bhattacharyya, S. Das, Alok Satpathy
Academic and Residential	U. K. Mohanty	A. K. Panda (CE), K. C. Patra, S. P. Singh,
Campus Environment		Y. K. Sahu, S. P. Mahapatra
Web Site and Internet	B. D. Sahu	D. Barik
Venue Preparation & Seating Arrangement	K. C. Biswal (CH)	P. K. Nanda, S. S. Mohapatra, H. B. Sahu, Y. K. Sahu, S. P. Mahapatra, S. K. Sahu
Lunch	K. R. Patel	S. K. Acharya, S. K. Patel
Arrangement for Degree Awardees	S. Bhattacharyya	S. K. Patra, M. K. Mishra, A. K. Turuk
Academic Procession	S. K. Jena	B. K. Pal
Reception, Hospitality, Invitation & Accommodation	B. B. Biswal	A. K. Satpathy, B. D. Sahu, S. Bhattacharyya, S. K. Upadhyay
Audio/Photography	H. B. Sahu	D. Patra
Arrangements for VIPs	S. K. Upadhyay	A. K. Patnaik
Security	R. K. Singh	B. Champatiray
Transport	S. K. Upadhyay	A. K. Patnaik
Telephone	S. Ghosh	
Cultural Programme Committee	S. K. Acharya	D. Patra, S. S. Mohapatra, H. B. Sahu, S. K. Sahu

CONVOCATIONS 2003-2006

Convocation	Date	Chief Guest
Annual Convocation - I	April 12, 2004	Prof. R. Natarajan
Annual Convocation - II	December 11, 2004	Dr. Anil Kakodkar
Annual Convocation - III	January 28, 2006	Prof. Chandrasekhar Jha

*A college degree is not a sign that one is a finished product
but an indication a person is prepared for life.*

- Reverend Edward A. Malloy [Monk's Reflection]



The newest Hall of Residence at NIT Rourkela is dedicated to the memory of Homi Jehangir Bhabha, who pioneered the use of atomic energy for welfare of the humanity



"...Two roads diverged in a wood, and ...
I took the one less traveled by,
And that has made all the difference...."
- Robert Frost (*The Road Not Taken*)