

PLACEMENT BROCHURE

2016-17



NIT Rourkela



FROM THE

DIRECTOR'S DESK



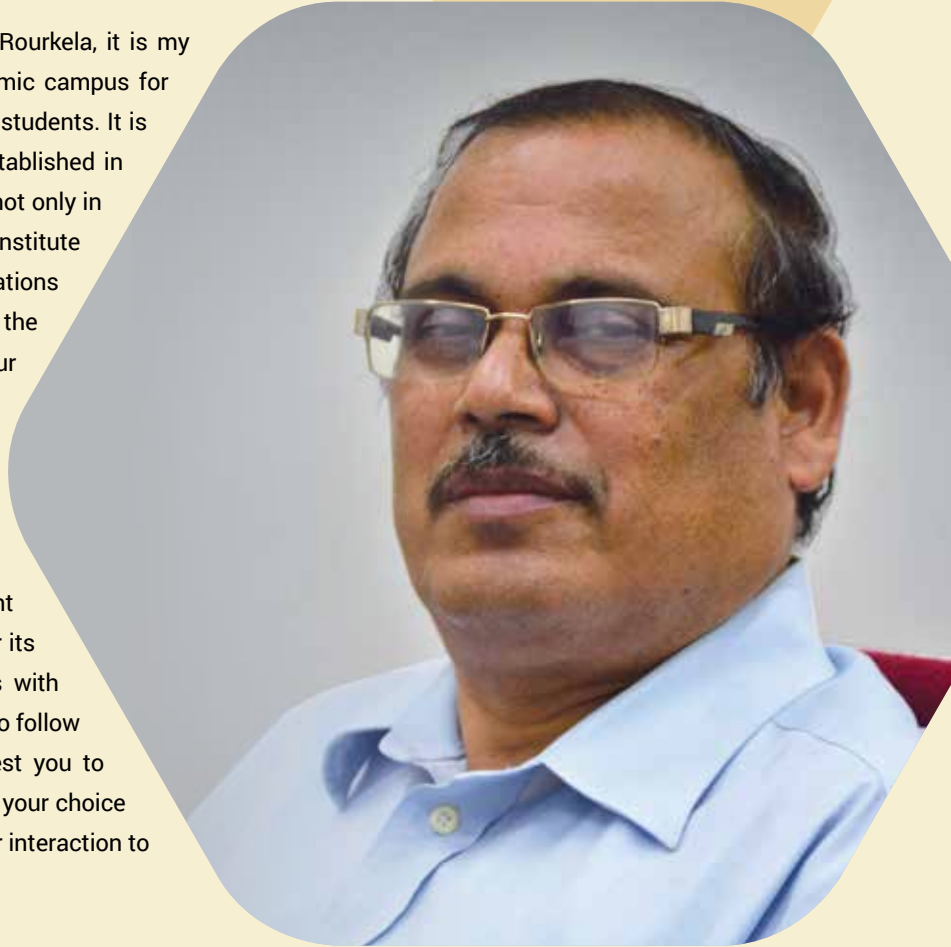
On behalf of National Institute of Technology, Rourkela it is my pleasure to welcome you to this beautiful campus. This institute has been known for its hospitality for more than four decades, and we strive hard to keep up the tradition. In case we have inadvertently slipped somewhere, I offer my sincere apologies. Our academic programme is amongst the best in the country. It provides an optimum mix of theory and practical, with strong bias on industrial and managerial applications. In more recent years, introduction of modern computational tools and digital equipment have further improved the programme. While the depth of training in engineering & management subjects are unquestioned, the span of our curriculum is often overlooked. The NITR student learns subjects across departmental boundaries and excels in extracurricular activities. The mix of technology and management skills that an NITRian possesses makes him an invaluable asset to any organization he works for. With seventeen departments awarding degrees in engineering, science and management, we are one of the most diversified institutions. Whether you are young or old as a company, whether your business is in coal mining or in data mining, whether the job you are offering is in the shop floor or in R&D, we have the right engineer

and manager for you. We give you freedom and extend to you all physical facilities to carry out your own recruitment process on our campus. In case you have a time constraints or other inconvenience, we shall only be too glad to meet your selection team in another city. Whether you have regularly recruited our graduates and post graduates, or you are visiting us for the first time, I am sure you will find our students very competent and you will visit us again, year after year. We look forward to a warm and enduring relationship.

Prof. Sunil K. Sarangi

FROM THE **HEAD, PLACEMENT CENTRE**

On behalf of National Institute of Technology, Rourkela, it is my pleasure to invite you to our beautiful academic campus for conducting campus selection programmes for our students. It is my privilege to mention that this institute was established in 1961 and over the years it has earned recognition not only in India but all over the globe. The students of this institute are occupying enviable positions in various organisations at home and abroad. Many of them have been the driving force behind the industrial landscape of our nation. Our Institute enjoys the status of Institute of National Importance. Presently a massive developmental work has been completed under the World Bank funded Government of India's TEQIP scheme for all the Departments. The Institute has earned fame not only for its excellent academic and extracurricular activities but also for its research, consultancy and development activities with this brief background I am furnishing in the pages to follow all pertinent information about us. I would request you to kindly visit our campus for selecting candidates of your choice on any date convenient to both of us. Expecting our interaction to grow over the years to come.



Dr. Sanjay K. Jena

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NIT ROURKELA

Since 1961, NIT Rourkela has worked towards becoming one of the most renowned technological institutions in the country. Since its birth, the institute has attracted many of the brightest minds in India. Located at the vibrant conjunction of Rourkela's industrial landscape and civilization, NIT Rourkela has grown to be one of the most respected names in the field of technical education in the country. Today, the institution is recognized as an institute of national importance along with the IITs and IIMs by the NIT Act. The cumulative accomplishments of its highly talented and widespread alumni is in a large measure responsible for the ever growing tradition and reputation of NIT Rourkela as one of the best engineering and research institutions in the country.

VISION

To become an internationally acclaimed institution of higher learning that would serve as a source of knowledge and experience for the society and be a preferred destination for undergraduate and graduate studies.

MISSION

To advance and spread knowledge in the area of science & technology, leading to creation of wealth and welfare of humanity.

GUIDING PRINCIPLE

Every faculty, staff and student of NIT Rourkela is passionately committed to the mission of making India a world leader in technology and science, and nurtures this commitment with honesty, hard work and team spirit.

WHY RECRUIT @
NIT ROURKELA



An Institute of
National Importance :

NIT Rourkela distinguishes itself not only as another institute which encompasses engineering courses, but as one of national importance, by virtue of an act of parliament (NIT act - 2007), which is here to serve a larger purpose where getting a degree is not the primary focus. The idea of creating better technologists, better leaders and most importantly better citizens suffuses through the teaching pedagogy of the curriculum.

An Institute of
Excellence :

The constant endeavour to achieve excellence in all fields is one of the prime virtues that set this institute apart. Since its very foundation, the institute has set many benchmarks in the field of research the pursuit for quality has become a never ending journey.

Choices in
Curriculum :

NIT Rourkela offers a plethora of choices to its students in the field of engineering, architecture, sciences, arts and management. The departments offer a wide range of courses which are designed to meet the current requirements of the industry and the academia. The curriculum encourages students to apply theoretical learning to real-life scenarios in the form of case studies, research, events and live projects. The key principle behind all of the activities taken up by the students is aimed at their holistic development to build a better individual and a better personality as a whole and not merely a good engineer.

A Culture worth
Preserving :

It goes with the saying that as long as there is a spirit within, there is a world waiting to be explored. It has been more than 50 years since the establishment of NIT Rourkela, and it is the spirit of this institute that has remained intact, which NITRians imbibe and carry forward wherever they go. The hallmark of this spirit has been not to walk on the path already taken but to establish new routes, to take the less trodden path and be the first to respond to the needs of the people and the nation.

NITR has been occupying
top ranks consistently :

NIT Rourkela has consistently won top awards and has always been ranked among the top Technical Institutes of the country, including IITs and NITs. Recently it was ranked 4th among all NITs and 19th among all technical institutes in India by MHRD. NITR was ranked 11th "Best Tech School" by DQ-CMR Survey 2013-14. ABP News awarded the institute with the "Outstanding Engineering Institute of Eastern India Award" in the year 2014, 2013 and 2012. ET NOW conferred our Director Prof. S.K. Sarangi, Director with "Education Leadership Award" in 2013. He has been awarded the prestigious Rajiv Gandhi Education Excellence Award by the Indian Solidarity Council and International Institute of Education and management.

Rank

4

AMONG

All NITS

And

19th among

all Technical Institutes in India

by **MHRD**

AWARDS AND ACCOLADES

The excellence of NIT, Rourkela has been recognized by various reputed agencies. Ranked 12th in India (1st among all NITS) and 1621 Globally among overall Institutes of World in Webometrics ranking of world Universities. In a recent survey by EDU RAND, NIT Rourkela was ranked 1st among all NITs and 8th overall amongst a number of reputed technical institutes from all over India including the IITs. Our Director Prof. S.K. Sarangi has been awarded the prestigious Rajiv Gandhi Education Excellence Award by the Indian Solidarity Council and International Institute of Education and management.

2015

- * Ranked 1st by World Bank amongst all technical institutes of the country for project implementation
- * Ranked 9th in DQ-CMR, Top T-Schools, 2015
- * Ranked 13th in Careers 360, Outstanding Universities (Engineering Public), March 2015
- * Ranked 7th among Top Engineering Colleges of Super Excellence by CSR-GHRDC Survey – 2015

**2013
&
2014**

- * Ranked 7th by Global Human Resource Development Centre, CSR Engineering Institute Survey 2014
- * “Outstanding Engineering Institute (East)” – ABP News in 2014
- * “Education Leadership Award” to Prof. S.K. Sarangi, Director, ET NOW in 2013 * Ranked 1 among NITs and ranked 7th among all India Technical Institutions in Academic Environment.
- * “Outstanding Engineering Institute (East)” ABP News in 2013
- * “Best Government Engineering College” – ABP News in 2013
- * Ranked 11th by DQ-CMR Best Tech. School Survey 2013-14

2012

- * “Outstanding Contribution to Education” to Prof. S.K.Sarangi, Director - * The World Education Congress in 2012
- * Ranked 5th among the best universities of the country and 1067th position among World Universities by Cyber metrics survey in 2012 a Spain based research group
- * Outstanding Engineering Institute”(East), ABP News in 2012
- * “Best Government Engineering College”, ABP News in 2012
- * Ranked 19th by Outlook-MDRA Engineering Colleges Survey 2012
- * Ranked 15th by DQ CMR T-School Survey 2012

2011

- * “Outstanding Engineering Institute of Eastern India”, Star News in 2011
- * “Best Government Engineering College”, Star News in 2011 * Ranked 18th DQ CMR T-School Survey 2011
- * Ranked 12th overall and 8th for academic, Data Quest Survey 2011
- * In 2011 and 2014, ‘ABP News’ awarded NIT Rourkela with the “Outstanding Engineering Institute of Eastern India Award”.

2009

- * Think Odisha Leadership Award, The Times of India in 2009
- * 2nd prize in design category at the formula SAE-India Design Challenge – Society of Automotive Engineers (SAE-India)

INFRASTRUCTURE

With a gigantic 647 acres area, covered by a lavish greenery, the campus of NITR is situated right at the junction of hills of Rourkela. The campus is embellished with numerous and rapid development happening in all nook and corners of the institute making it more enhanceive. It has been well rendered with all the modern amenities. The entire campus is connected by a state of the art network with 5000 nodes. Every student and faculty member has a networked personal computer at his/her disposal. With an internet bandwidth of 180Mbps and 850 Mbps intranet bandwidth, NIT Rourkela hosts one of the most advanced networks in the country. Furthermore the institute has well maintained seminar halls as well as facilities for video conferencing. The institute also has Wi-Fi connectivity and e-classrooms available for online lectures.



BIJU PATNAIK

CENTRAL LIBRARY

The Biju Patnaik Central library, named after the former Chief Minister of Odisha, serves as the powerhouse for research and studies for the entire institution. Spread over three floors, the library is an invaluable resource with 61,800 books and 20,000 back volumes of periodicals. It is automated with an integrated library software package called Libsys – LSmart and modernized with latest Radio Frequency Identification (RFID) based automation system. The online repository hosted by the library also hosts every paper, dissertation and thesis published by the students and faculty.



COMPUTER CENTRE

The Central Computer Centre offers round the clock services with an uninterrupted power supply to students on the campus with the latest infrastructure supporting research and studies at the campus. The computer centre hosts the latest IBM servers with a storage capacity of up to 100TB. In a huge boost to the already advanced computing capacity, a 2 teraflops High Performance Computing (HPC) System has been installed. An L-2 Datacentre is also being installed



AUDITORIUM LECTURE HALLS AND CONFERENCE ROOMS

The campus hosts a centralised air conditioned auditorium, The Bhubaneswar Behera Auditorium, with a seating capacity of over 1000. The campus also has a Lecture Gallery Complex with different galleries having seating capacities of 60, 120 and 240 along with 12 other conference rooms and the Pranakrushna Parija Auditorium with a seating capacity of 300, all of which are adequately equipped with uninterrupted power supply, air conditioners and LCD projectors. Facilities, round the clock are available to conduct tests online.

SPORTS FACILITIES

All work and no play make Jack a dull boy indeed. At NITR, games and sports receive equal attention as any other academic activity. The sporting infrastructure, one of the best among NITs, consists of the Aquatic Sports Facility, The Dilip Tirkey Hockey Stadium, The P. T. Usha Sports Complex and The Sachin Tendulkar Cricket Stadium, all replete with floodlights, wherever necessary. A separate body for Games and Sports regulates, manages and organizes sporting events like the Annual Athletic Meet, Inter and Intra-Hall sports activities and various cricket and football leagues. There are separate squads for all the games that represent the institute at Inter-NIT Sporting events.



FACILITIES FOR RECRUITERS

Well-furnished auditorium for conducting pre-placement talks and analytical tests.

The Institute Guest House has conference rooms as well as facilities for Group Discussions and Personal Interviews.

- Student Placement Coordinators work towards a smooth placement season.
- Video conferencing facilities are available for conducting one-to-one interviews.



MODES OF ADMISSION

JEE MAINS :

Admission to all B.Tech courses are made through Joint Entrance Examination (JEE (Main)). The counseling for this is done by Central Seat Allocation Board (CSAB). Additionally the Institute offers integrated M.Sc and M.Tech Dual Degree courses which are of 5 years duration. Admission to 5 years integrated programs are made from JEE (Main) or similar National level test, along with the admission for B.Tech.

GATE :

The M.Tech/M.Plan admission is through GATE Examination. The counselling for these students is done by Centralised Counselling for M.Tech/M.Plan (CCMT).

JAM (Joint Admission test for M.Sc.) :

The two year M. Sc. students take Admission through JAM.

ADMISSION for Foreign Students :

International students from various countries like Afghanistan, Nepal, Sri Lanka, South Africa head to NIT Rourkela for a quality education.

NIT Rourkela supports various programmes for International Students like :

1. **DASA (Direct Admission of Students from Abroad)**
2. **ICCR (Indian Council for Cultural Relations)**
3. **MEA (Ministry of External Affairs)**

DEPARTMENTS

Biotechnology and Medical Engineering

Established in 2007, Department of Biotechnology and Medical Engineering envisages of becoming a globally recognized department of higher learning by producing quality engineers and technologists in the field of Biomedical Engineering. The department has a robust infrastructure and sophisticated laboratories to carry out research. It boasts of high end instruments like two FACS machines (one for cell sorting), UTMs, a DSC, a Spectrofluorometer, a FTIR, Bioreactors and even a confocal microscope in the pipeline.

Courses offered:

B.Tech
M.Tech



Civil Engineering

The Department of Civil Engineering at NIT Rourkela is the oldest branch which was established in 1961. The Department is known for its reputed faculty having expertise in diverse fields. It has built up a wide research potential. Various laboratories on structural, geo technical, aggregate and bitumen testing, hydraulics and environment engineering managed by respected professors and trained technicians, are well equipped with modern sophisticated instruments to take up the new challenges in research. The faculty also renders technical service on engineering problems to various agencies/industries in the form of consultancy projects.

Courses offered:

B.Tech
Dual Degree
M.Tech





Chemical Engineering

The department was established in the year 1963 with undergraduate program and initiated postgraduate (PG) program in Coal Chemicals and Fertilizers in the year 1981. The Chemical Engineering programme at NIT, Rourkela, with its interdisciplinary flavours along with its diversified structure is dedicated to the aspiring students and mentoring them for the broad spectrum of Chemical Engineering careers. Above and beyond the classes, all the students carry out independent research through project and thesis work. The Department has an excellent ensemble of dynamic goal oriented, highly qualified and experienced faculty members.

Courses offered:

B.Tech
Dual Degree
M.Tech

Ceramic Engineering

Established in 1994, the Department of Ceramic Engineering at NIT Rourkela is India's only integrated program in Ceramic Engineering among all the 20 NITs having a proper blend of competitive teaching and innovative research. The department boasts of state of the art laboratories having modern equipments for chemical analysis, fuel testing, high temperature analysis, glass and bio-ceramics with a workshop, well stocked with high temperature furnaces and facilities dedicated to work on whiteware, refractories and cement. Presence of equipments such as dilatometer, DSC/TG, Universal Testing Machine (UTM), UV Visible Spectrometer and BET machine enable advanced material characterization/testing and make the department a centre of excellence for both traditional and modern ceramics.

Courses offered:

B.Tech
Dual Degree
M.Tech





Computer Science Engineering

One of the most coveted branches in NITR, the Department of Computer Science and Engineering has already completed 28 years since it got introduced in 1987. The department is guided by highly qualified and energetic faculty members with diverse research interests. On the educational front, the curriculum is designed with a motive to prepare students to be industrial and academic leaders who can apply computer science principles across a wide variety of fields.

Sophisticated laboratories on database engineering, parallel algorithms, artificial intelligence, soft computing, software engineering, computer networks & image, Distributed Object System processing provide a sound base for research activities. In order to match with the fast pacing technologies, various interactive workshops and seminars are organized by the department all throughout the year.

Courses offered:

- B.Tech
- Dual Degree
- M.Tech

Electronics and Communication Engineering

The Department draws upon some of the brightest minds of the nation as the faculty who work towards building a scientific temper among its equally brilliant students. Well-equipped state of the art laboratories cater to all kinds of training and research needs of the students, and the courses are specifically devised to suit upcoming developments in technology to provide the required orientation and experience. The department has focused on latest technological facility for nano-integrated circuits and embedded system design for diverse applications of communication, microelectronics, computer vision, intelligent instrumentation and advanced signal processing, training students for global careers in challenging environments.

Courses offered :

- B.Tech
- Dual Degree
- M.Tech





Electronics and Instrumentation Engineering

Established in 1992, this specialized branch streaming right out from electrical and electronics engineering deals with measurement, control and automation of processes. NIT Rourkela is one of the few colleges that offer this multi-disciplinary course and has been among the top notch ever since. The branch ensembles an excellent team of highly qualified and experienced faculty members who thrives upon motivating and shaping the students undertaking this course in the most dedicated manner. The course structure of the branch makes its instrumentation engineers fit for both the hardware and the software industry. The carefully planned laboratories and regular industrial visits make our engineers capable of manning and managing almost all process and manufacturing industry such as steel, oil, petrochemical, power and defense production having a separate instrumentation department.

Courses offered :

B.Tech
Dual Degree
M.Tech

Electrical Engineering

The Department of Electrical Engineering, since its inception in the year 1961, has been nurturing the talent of the engineering students to make them competitive globally. The curriculum of the department demands rigorous hardwork and creativity. The Department aims at quality education by facilitating a sound foundation in theoretic fundamentals through a combination of good teaching environment and excellent laboratory & computational facilities. It also provides valuable exposure to industrial and research practices through regular industrial visits and inclusion of students in various research projects. The various labs include the Art and Aesthetic Lab, the CAD Lab, the Product Design and Development Lab and the Creative Automation Lab and is equipped with FARO Arm, 3D Printer, SCARA robot and many other advanced machines.

Courses offered :

B.Tech
Dual Degree
M.Tech





Food Processing Engineering

The department of food process engineering was established in July 2013. This new department certainly matches with the highest possible academic and research standard of NIT Rourkela. The major focus has been to create a fine blend of theoretical and practical knowledge keeping in mind the industry requirements and creating skilled human resources. The department is equipped with all the latest technological equipment and machinery. The various lab includes Food Chemistry lab, Dairy Processing lab, Air Conditioning and Refrigeration lab, Product Design and Development lab, Fluid Dynamics lab, Food Microbiology lab, Food Grains Processing lab, Unit Operations lab, Heat and Mass transfer lab and is equipped with machines like Spray dryer, Microwave dryer, Infrared dryer, Texture analyser, Hot air dryer, Colorimeter, Orbital shaker, Hammer mill, Turmeric oil expeller, Rotary evaporator, Rice husker, Soxhlet extractor, Rice polisher, etc. Our able faculties expertise in majors such as Transport process and kinetics, Food packaging and storage, Food Nanotechnology, Food properties and post-harvest operations, Food quality and safety, Product Development and Ingredients Innovation, Computer aided design.

Courses offered :

B.Tech



Industrial Design

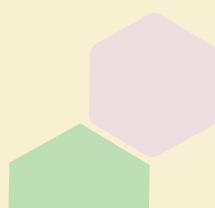
The Department of Industrial Design, NIT Rourkela was established in 2010 and has shown an exponential growth in last 6 years. Our able faculty members expertise in majors such as product modelling, design and analysis, innovative product design, interaction design, industrial automation, ergonomics, rapid product development and reverse engineering.

The Department has the facilities for design, including a CAD (Computer Aided Design) lab, featuring 3D design software like Solid Works 2015, CATIA V6R2014 and MasterCam, an analysis lab with ANSYS 15.0 and other software, an Art and Aesthetics lab which houses traditional photo editors, CINTIQ 24 WACOM touch tablet and content creators like Corel Draw, Adobe Photoshop CS6, Adobe.

In addition to it the Department has a Product design and Creative automation lab which includes various high end technological machines and devices like FaroArm Fusion 7-axis, RP System Dimension 3D printer SST 1200es, Aristo 6XT – 6 axis articulated robot and SCARA

Courses offered:

B.Tech
M.Tech





Mechanical Engineering

Since its inception in 1961, the department has been nurturing its talent through its courses complying with the recent technological developments and specialized labs. It has some of the nation's uniquely qualified faculties who mentor the students in their endeavor to stand up to themselves and flourish as the torch-bearers of tomorrow's industrial evolution. The department is equipped with laboratory facilities like CAD/CAM, mechanical vibrations, CFD, precision engineering, Industrial Refrigeration and Cryogenics, Hydraulic machines, Heat transfer, Automobile Combustion engines, metal machining, non-conventional machining and metal forming. The Department has close scientific & technical relationships with industrial majors like SAIL, OCL, L&T, TATA Steel, TATA Refractories Limited, BOCL, NALCO, etc.

Courses offered :

B.Tech
Dual Degree
M.Tech

Metallurgical and Materials Engineering

Established in 1963, The Department of Metallurgical and Materials Engineering stands firm in its commitment to producing the finest metallurgical engineers in the country. Equipped with sophisticated instruments in the Process Metallurgy, Physical Metallurgy and Advanced Materials Laboratories, it also boasts of other high quality machineries have been added to carry out research.

The Department has been carrying out research and innovative technological development in core areas of material science. The Department is actively pursuing research by inviting a number of industries; the likes of Rourkela Steel Plant (RSP), Tata Steel, Dalmia Research Institute and Orissa Cement Limited. Faculty members and students often publish high impact factor articles in various journals of international repute.

Courses offered:

B.Tech
Dual Degree
M.Tech

