NATIONAL INSTITUTE OF TECHNOLOGY DURGAPUR





PLACEMENT BROCHURE

2022 - 2023

From the Director's Desk

It is a matter of great pleasure to release the Placement Brochure of NIT Durgapur for the academic session 2022-23. This new brochure comes with a host of first-hand knowledge about the institute. It not only highlights the academic programmes operating on campus but also some of the most recent achievements of the students, faculty members and the institute as a whole on various national platforms.

The academic programme curricula have not been included in this brochure as they are dynamically modified and kept posted up to date on the institute website. The existing programme curricula give a lot of flexibility and opportunity to the aspiring students. This brochure fantastically focuses on various academic / research facilities and relevant outputs, which are of social importance. Campus facilities that inject life into the system have also been nicely depicted in this booklet. Lastly, it is noteworthy that NIT Durgapur has produced a large number of highly reputed personalities and an honest attempt has been made so as to inspire the student community.



Dr. Anupam Basu Director, NIT Durgapur

Message from Chairman

Youths are the backbone of the society and the nation as a whole. NIT Durgapur provides ample scope for their holistic development. Here we believe in the excellence in academic pursuits as well as spearheading in leadership roles. Students are not only encouraged to take charge of their lives and go beyond the ordinary but also motivated to embrace a wider perspective of life.

I would like to take the opportunity to invite all prospective stakeholders to go through the brochure for comprehensive information about the institute. It outlines achievements of faculty members and students, infrastructural facilities, placement statistics, campus events and significant contributions of our notable alumni among other relevant details. Take the plunge and explore the plethora of opportunities lying before you.



Prof. Nilotpal Banerjee
Chairman, CDC NIT Durgapur

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NIT DURGAPUR

National Institute of Technology Durgapur was established as Regional Engineering College (REC) in 1960, being one of the first 5 RECs in this country.

In the year 2003, it was granted Deemed University status and was renamed the National Institute of Technology Durgapur. Later in the year 2007 the Union Government of India declared it as an "Institute of National Importance" along with IITs and IIMs. NIT durgapur is one of the leading institutes in the fields of engineering and research. The institute being the first institute in Eastern India to be selected as a Lead Institute under the Technical Education Quality Improvement Programme (TEQIP) of the Govt. of India, funded by the World Bank, is now holding the 6th position among all the NITs and 29th position in engineering institutes as ranked by NIRF-MHRD. The institute offers an advanced curriculum with scope of full-semester internship opportunity and minor programs. NIT Durgapur recognizes development and implementations of joint research projects, innovative activity within the frame of educational programmes as a BRICS network university. Sharing the vision of transformational changes in rural development processes the institute is an active member of Unnat Bharat Abhiyan, Govt. of India.

Departments



Department of Biotechnology

The Department of Biotechnology, NIT Durgapur was established in 2005 with the B. Tech Biotechnology Program. The M.Tech program was subsequently introduced in 2009. In the year 2020, the department introduced a MSc in Life Sciences program.

The department consists of 17 faculties with diverse research backgrounds, engaged in teaching and research in applied biological sciences and biomedical engineering. Faculty members are actively involved in projects, publishing high quality research articles, patents and have established collaborations with various national and international laboratories.

Department of Civil Engineering

The Department of Civil Engineering is one of the oldest Departments with UG course in this Institute and it was functioning from the inception of the Regional Engineering College (REC) Durgapur. The department of Civil Engineering offers B.Tech., M.Tech. and Ph.D. degree programs.





Department of Chemical Engineering



Taking in 60+ students in the UG course, as well as 20+ in the PG course, the department has come miles from its humble beginning in 1964. It strives to increase its efficiency and proficiency with each coming year and batch of bright world changers. The numerous laboratories and advanced technology promote a very high standard of education. The job prospects are endless, with a number of engineers working in the fields of Energy engineering, Nuclear engineering, Petroleum, Product/process development, Analytical chemistry, Energy managing, Manufacturing, Mining, Production managing, Quality managing, etc.

Department of Chemistry

Since inception of the institute (1960), the Department is sincerely engaged in teaching the students of different engineering courses in both UG and PG levels. The Department began its supreme journey with M. Tech. Programme in Corrosion Science & Technology in 1987. Later on, M.Sc. in Chemistry has been introduced (2009). From 2017, the Department has started 5 years integrated M. Sc. course in Chemistry. The department is gifted with a galaxy of enthusiastic and dedicated faculty members.



Department of Computer Science and Engineering



The Department started imparting instructions with the most modern curricula and syllabus to the students ofr undergraduate course since 1991 and post graduate course since July, 2004. The Department maintains an excellent teaching/learning and research environment with dedicated, qualified and dynamic faculties and well equiped laboratories.

The Department of Computer Science and Engineering (CSE) embodies the university's tradition of excellence in engineering education. CSE Graduates capture leading academic appointments as well as opportunities in renowned computer industries.

Department of Electrical Engineering

The Electrical Engineering department was established in the year of 1960. Presently the department offer B. Tech in Electrical Engineering, with intake capacity of 100 students, M. Tech in Power Systems and Power Electronics & Machine Drives, each have intake 20 students, and PhD program. The department is equipped with around 15 different laboratories, and among these 8 laboratories has modern state of the art facilities for research and consultancy work. The department also has strong regional and foreign collaboration.



Department of Electronics And Communication Engineering



The embryonic formation of the Department of Electronics and Communication Engineering was in the year 1983 with the introduction of an undergraduate course. Apart from the four years B. Tech course the Department also offers two full time M.Tech courses, one in Telecommunication Engineering and another in Microelectronics and VLSI. The Department also offers PhD in several areas. The faculties are engaged in research in diverse topics focussing in Telecommunication, Antenna and Microwave, Microelectronics and VLSI, Signal and Image processing and Computational Systems Biology.

Department of Earth And Environmental Studies

The Department is the coordinating department for multidisciplinary M.Tech. Programme in "Environmental Science and Technology" from the academic session 2009-2010, presently involving four departments of the Institute. The Departmental laboratories are well equipped to serve the needs of the students. The Department offers facilities for research activities to faculties and research scholars of the Institute. Present fields of research include various problems related to environment, application of RS & GIS in resource management, etc.

Presently, ten research scholars are carrying out their research in the department.





Department of Humanities And Social Sciences

Since inception of the Institute the Department has been catering its service to all the student of UG and PG courses. Besides teaching, the faculty member are actively engaged in research activities in the fields of Industrial Economics, Financial Management, Marketing Management, Operation Research, International Trade, Industrial Marketing, Risk Management and Capital Management. Its mission is to achieve excellence in imparting communication skill and to emerge as acentre of excellence in language studies.

Department of Management Studies

The Department of Management Studies (DMS) is an endeavour that has arisen out of the hard felt need to groom future managers within the NIT system. Currently the department is running two programmes i.e MBA and M.Tech (Entrepreneurship & Innovations). The department is steadily emerging as a leader in providing management education at the undergraduate and postgraduate levels. The curriculum is a product of philosophy that seeks to amalgamate the best of theory and practice. The pedagogy of DMS is blend of simulation exercise such as case discussions, live projects and presentation along with the conventional classroom teaching.





Department of Mathematics

Department of Mathematics started functioning from the year 1960 when the Institute was established as R.E.College Durgapur. Mathematics being the backbone of all engineering disciplines, the Department started to shape the young engineers of the country since the inception of the Institutey. Presently there are approximately 60 full time and part time scholars. The Department has produced 20 Ph.D. during the last 10 years. The Department has the vision of contributing to the nation through quality education & research in mathematics.

Department of Mechanical Engineering

One of the largest and oldest departments in the college, it also has the added privilege of being one of the oldest and most fundamental engineering courses in the world. Established in 1960, the Department has performed wonders in growing to accommodate 150+ students in the undergraduate course as well as 20+ students for each PG course. They ensure that each engineer emerges as globally competitive and innovative. This is helped by the presence of phenomenal laboratories in Heat Power, Machine Design and Robotics.



Department of Metallurgical And Materials Engineering



The Department, which started its journey in the year 1960, presently offers B.Tech. (Metallurgical and Material Engineering), M.Tech. (Metallurgy and Materials Technology) and Ph.D Programme. The teaching at B.Tech level focuses on the fundamental knowledge base development in various areas of Metallurgical and Materials Engineering, such as, Extractive Metallurgy, Physical Metallurgy, Mechanical Metallurgy and Corrosion Science and Engineering. M.Tech level teaching emphasizes on advanced knowledge input in new material development and latest techno-scientific progress in Metallurgical Industry.

Department of Physics

This is one of the oldest departments of the institute which has been providing the basic knowledge of physics to innumerable budding engineers who have studied in this institute. Physics means "knowledge of nature", which essentially is a natural science that involves the study of natural laws and its consequences in both microscopic and macroscopic domain. The interest of the department of physics spreads over many interdisciplinary areas of science and the boundaries are not rigidly defined. The department encourages and appreciates new ideas in physics that have relevance to technologies useful for the mankind.





ACADEMIC DEMOGRAPHICS

STUDENT STRENGTH (UG)

B. Tech (4 years)

Biotechnology

Chemical Engineering

Civil Engineering

Computer Science and Engineering

Electrical Engineering

Electronics and Communication Engineering

Mechanical Engineering

Metallurgical and Materials Engineering

STUDENT STRENGTH (PG)

B. Tech + M.Tech dual degree (5 years)

Biotechnology

Chemical Engineering

Integrated M.Sc (5 years)

Physics

Chemistry

M.Sc (2 years)

Physics

Chemistry

Mathematics

Life Science

Applied Geology & Geo-Informatics

MBA (2 years)

Finance

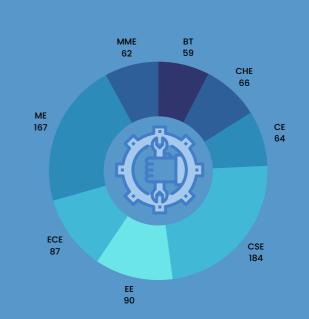
Marketing

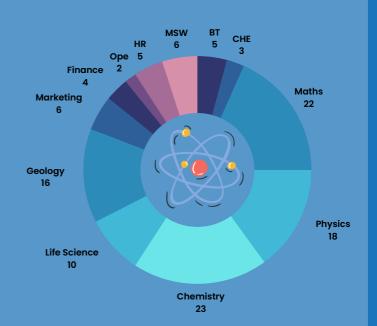
Operations

Human Resource Management

MSW (2 years)

Humanities and Social Sciences







ACADEMIC DEMOGRAPHICS

STUDENT STRENGTH (PG)

M.Tech (2 years)

Biotechnology

Chemical Engineering

Civil - Structural Engineering

Civil - Geotechnical Engineering

Computer Science and Engineering

Environmental Science and Technology

Electrical - Power Systems

Electrical - Instrumentation and Control

Electrical - Power Electronics and Machine Drives

Electronics - Telecommunication Engineering

Electronics - Microelectronics and VLSI

Entrepreneurship and Innovations

Operations and Research

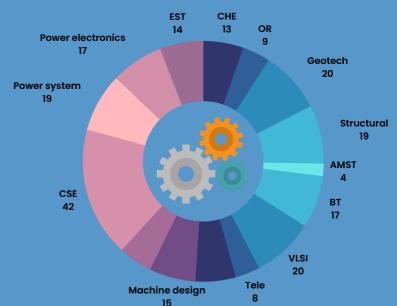
Mechanical - Machine Design

Mechanical - Fluid Mechanics and Heat Transfer

Mechanical - Thermal Engineering

Metallurgy and Materials Technology

Physics - Advanced Material Science and Technology









We the Career Development Center, NIT Durgapur present to you the lucrative statistics for the year 2021-22.

Total Job Offers

Overall Placement Percentage

Highest Package

Average Package

650+

: 85.50%

57.28 LPA

: 11.54 LPA

Placement Process

INVITATION

The Career Development Center sends an invitation to the companies with relevant information.

PRE-PLACEMENT TALK

The company may organize a Pre-Placement talk for the intrested students appearing for the recruitment process.

INTERVIEW

The shortlisted candidates are then interviewed by the company/organization officials.

CAMPUS PLACEMENT INFORMATION

The companies are then required to fill the Campus Placement Information form and share the information following which the placement cell schedules their visit according to the slots available.

SHORTLIST

The candidates are shortlisted either via CVs or by conducting online tests or group discussions.

FINAL LISTING

At the end of the selection procedure the company is required to furnish the final list of the selected students.

CAREER DEVELOPMENT CENTER

Career Development Center at NIT Durgapur is responsible for conducting placements, internships, and training for the students here. The responsibility includes communicating with the companies and organizations, scheduling, and executing the whole placement process. The dedicated team of professors, student coordinators, and staff members brings the official communication with the recruiters and students smooth and efficient.



Over the years, the center works diligently to meet the expectations of both the recruiters and students.



FACILITIES

Well-resourced auditorium for conducting pre-placement talks and analytical test along with well furnished and sound proof rooms to conduct Group Discussions and Personal interviews. The Institute Guest House for the accommodation of the employees with pick and drop facilities inside Durgapur. Video conferencing facilities with Wifi are available for conducting in online means. Computer centres for efficiently conducting tests.

PLACEMENT COMMITTEE

The Career Development center of the National Institute of Technology, Durgapur manages placement activities and is connected to several industries and research organizations. The committee is handled by professors and faculty members along with the student placement committee with the students chosen from all the departments





Major Recruiters



Microsoft A ATLASSIAN amazon



Goldman Sachs



SAMSUNG Qualcom pwc



JPMORGAN CHASE & CO.

NatWest













MAQ Software **evedanta** accenture













c•g•p•rt









TERADATA ::: quantiphi > Mphasis







CONSULTANCY SERVICES





Deloitte. < code_nation > media.net



















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cādence





















ADITYA BIRLA GROUP **SANDVINE**







Meet the Team



Dr. Tapas Kumar Saha

Convener and Faculty Coordinator +91-9434788171

Mr. Rajib Kumar Chatterjee

Member





Ms. Jyoti Ranjan
Career Development Advisor
+91-9886014453

Mr. Tapas Kr. Laik
Member
+91-9434788089



Contact Us



NIT Durgapur, Mahatma Gandhi Avenue, Durgapur - 713209, West Bengal, India.

Infrastructure



AUDITORIUM

Auditorium and lecture halls fully equipped with latest multimedia and Wi-Fi for pre-placement talks (PPTs), workshops etc. Facility of tele-conferencing, video-conferencing and online interviews.

Seminar and conference rooms for group discussions and personal interviews.

CENTRAL LIBRARY

The Central library has a collection of 1.7 lakh volumes of books which includes Text Books, Reference Books and Bound volumes of Journals, Standards etc. The library is an institutional member of DELNET, American Centre Library, Kolkata, NPTEL, and Current Science Association, Bangalore. It is also a beneficiary Member of eSodh Sindhu (eSS) initially known as INDEST-AICTE Consortium. Library is also a member of National Digital Library of India (NDLI).





DEPARTMENT BUILDINGS

The department buildings are consisting of well equipped laboratories, air conditioned with latest multi-media facilities in lecture halls.

LABORATORIES

The Institute enhances technical and communication skills with well equipped laboratories such as Physics Lab, Chemistry Lab, Basic Electrical Engg. Lab, Basic Analog and Digital Electronics Laboratory, Computation Lab, Process Control Lab, Language Lab, and Tinkering Lab.



COMPUTER CENTRE

The Computer Science and Engineering Department facilitates with VLSI, Microprocessor & Computer Organization, Computer Graphics & vision, Internet ,Programming and Database laboratories comprising of the equipments Pentium-3 Server Acer Model AA350, IBM RISC RS-6000 Model 240 (AIX 4.3), IBM X-series 205 E-Servers, H.P. Net Server E200 P-3, Simulation Tools(Xilinx), FPGA Trainer Kit and CPLD Trainer Kit.

STUDENT'S ACTIVITY CENTER

The Student Activity Center (SAC) is treated as one of the Central Facilities of the Institute with a mission to train the students in physical activities. Excellent facilities are available for major sports, Yoga, Martial Art, NCC and NSS. It also includes well equipped multi gymnasiums for boys and girls with separate timings.



GUEST HOUSE



The Institute Guest House standing beside the Director's Bungalow serves to render hospitality to the Official and Non-official guests of the Institute. It is a unique double storied building with modern living facilities overlooking a beautiful garden and tall sal trees all around. The guests of faculty members and students are also accommodated there with advanced booking as per availability.

Beyond the Classroom

Centre for Cognitive
Activities (CCA), is the
technical gymkhana of NIT
Durgapur. It promotes
scientific and technical
acumen over different
fields such as robotics,
entrepreneurship,
research, innovation, web
design and management.









GLUG is an epithet for the GNU/Linux Users' Group of NIT Durgapur. It conducts workshops on Web Development, Android, Hackathons, GSoC

BarCamp to help people contribute to open source communities.

RECursion - the NIT
Durgapur
programming club is
a group for the
students
of NIT Durgapur who
are interested in
coding.









Maths N' Tech Club is the official knowledge club of NIT Durgapur. It publishes the Annual Technical Magazine, Anveshan and it conducts Aarohan - The Tech Festival along with SAE, GLUG and CCA.

Team NDORS (NIT Durgapur Off-Road Sports) is the official SAE BAJA team of NIT Durgapur representing the institute BAJA SAE INDIA. The team designs, fabricates and competes against other All-Terrain Vehicles at an event popularly called as BAJA SAE which is held annually every year.









IEEE Student Branch, NIT
Durgapur is a society of
enthusiasts aimed at
promoting research-related
activities in the campus.
Comprising bright
researchers, developers,
speakers, and other
contributors we are a society
that welcomes in the era of
better research prospects, on
the campus.

Indian Society for
Technical Education
(ISTE) NIT Durgapur is
a chapter
of ISTE, a leading
National Professional
non-profit making
society for
advancement in
technical Education
System of our country.









Literary Circle, NIT
Durgapur gives the
institute an extra
dimension of
creative expression
in the midst of
technical
unilaterism.

Debating Society, NIT
Durgapur is the
official group of
debaters of the
college. It intends to
promote and
practice the culture
of debating in the
college.









Darpan is a club formed by the students of NIT
Durgapur to promote literary works in Hindi and thereby is a platform for discussions and interactions in Hindi.

This club provides a platform to showcase the talent, hard work and creativity through dance. It continuously thrives to improve the depiction of many things regarding society, culture and daily life.









Enteract, the official
Dramatics club of
NIT Durgapur,
provides a platform
to one and all in the
college to showcase
their talents in
dramatics.

SPIC MACAY NIT Durgapur
Chapter remains committed
to its mission of
making students more
aware about Indian and
world heritage by organising
programmes of classical
music and dance, folk arts,
crafts, yoga, clas sic cinema
screenings, heritage walks,
etc. inside NIT Durgapur.











STROKES - The art and photography club is a team of enthusiasts that aims at patronizing the sense of creativity among the students of NIT Durgapur.

Radio Nitroz is a club formed with the intention to better communicate with

the students of the college, to be a college media and strive to bring a difference in the hectic life of college by bringing fun events and help people to learn better with a calm mind because "Life is to Live".









Amidst all the technical events of annual techno-management fest of NIT
Durgapur, the Music
Club tries to engage the crowd with some captivating music.

Prakriti is a group exclusively for all the nature lovers. Prakriti wishes to promote a lifetime of interest and pleasure for both active and armchair nature enthusiasts.









QuizInc is the official Knowledge club of the college, which dabbles in quizzing as well as the sharing of worldly information amongst all the students.

Enterpreneurship
Development Cell, NIT
Durgapur is an initiative
to
promote
enterpreneurship in the
campus.





Student Bodies

Chemical Engineering
Students Society, NIT
Durgapur is an
independent studentrun society of
Chemical Engineering
Department of NIT
Durgapur.









The Electronics &
Communication
Engineering
Students' Society
(ECESS) is a non-profit
society
led by the students of
Department of
Electronics &
Communication
Engineering, NIT

Evolvere is the official club of the Department of Biotechnology of NIT Durgapur.









Indian Institute of
Metals Students'
Chapter NIT
Durgapur is a student
affiliated chapter of the
largest professional
body of Metallurgical
and
Materials Engineering
(IIM).

Mechanical
Engineering Students'
Association
(MESA) is a student
body representing all
students from the the
Department of
Mechanical
Engineering NIT
Durgapur.





Aarohan is the Annual Techno-Management fest of NIT Durgapur, the 2nd Largest of its kind in the whole of eastern India. Started in the year 2003, it has been leading the light of instilling a culture of science, technology and innovation among the youth of the nation.









NitYamini, previously known as Recstacy, is the annual cultural festival of NIT Durgapur organized by Students' Gymkhana, NIT Durgapur.



NIT Durgapur's annual youth cum cultural fest, Verve, organised by the Literary Circle, is the largest of its kind in Eastern India, with thousands of participants engaged in various fun activities throughout the 3 days that it is conducted.









Enterpreneurship Development Cell (EDC) hosts an annual **Entrepreneurial** Summit, the E-Summit which is the second largest summit of its kind in Eastern India.

Quizzitch Cup is an annual fourday long fiesta of quizzing, knowledge and fun, organized by QuizInc, the official Knowledge club of NIT Durgapur.









Virasat, organised by SPIC MACAY NIT
Durgapur Chapter, is one of the cultural fests of NIT Durgapur where maestros of Indian cultural arts descend upon the campus to mesmerize all with their consummate skills.

ChemKriti, the annual fest of the Chemical **Engineering** department, a threeday long extravaganza of events, wherein students are provided a platform like never before to embolden your confidence as a budding chemical engineer.









PRIONS, the annual fest of the **Department of** Biotechnology, is a three-day long series of exhilarating quizzes, debates, and parties, offering a perfect blend of knowledge, thoughts and entertainment.



Notable Alumni

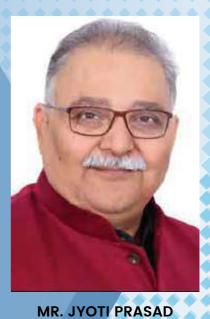




MR. SUBIR KUMAR
SAHA
Professor, Department of
Mechanical Engineering, IIT
Delhi



MR. SUBIR
CHOWDHURY
CEO, JCB India Ltd



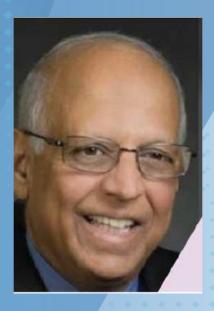
BHATTACHARYA
Founder & MD, Deem-Roll
Tech. Ltd. (Entrepreneur)



CHATTOPADHYAY

S. S. Bhatnagar Awardee

Honorary Professor, Indian
Institute of Science, Bangalore



PROF. K.K. SANKARAN

Adjunct Professor,
University of North Texas,
USA



PROF. TARASHANKAR
DEB ROY
Professor, Pennstate
University, USA



Notable Alumni





Joint Director, Directorate of MSME, Government of West Bengal



PROF. SAMRAT CHOUDHURY Assistant Professor, University of Idaho, USA



MR. B. SUMANT

Additional Whole Time
Director and President,
FMCG Businesses, ITC
Limited



S. S. Bhatnagar Awardee Professor, IISc Bangalore



PROF. ALOKE PAUL S. S. Bhatnagar Awardee Professor, IISC, Bangalore



MR. SUBRATA DUTTA

Vice President
(Marketing), SBU-Head,
Everest Industries, New
Delhi



Achievements



Faculty/Scientist

217

Professors

63

Associate Professors

70

Faculty/Scientist

Assistant Professors

80

Director

1

Scholarly Resources



4338 Closed Access



335 Gold OA





107 Bronze OA

Publications

7037

Journal Articles

4378

Patents

2

Conference / In Proceedings

2250

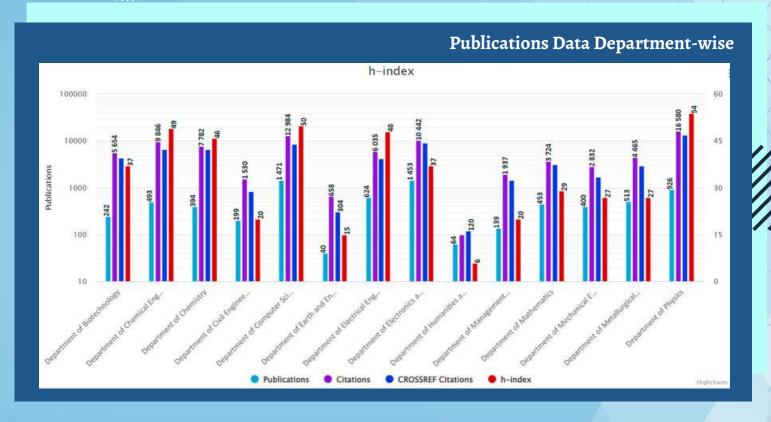


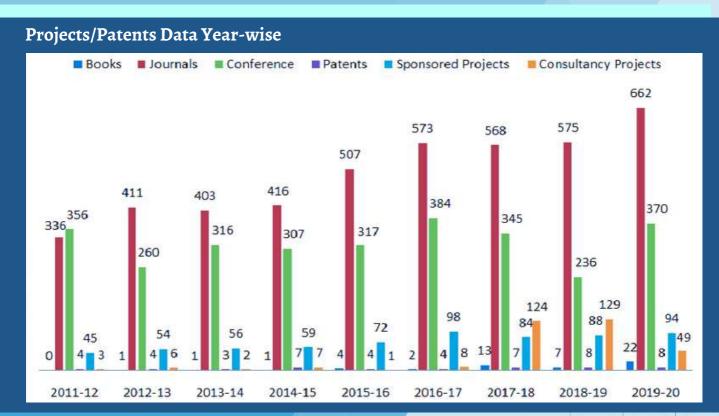


Resources Impact











Students



GATE

More than 500 applicants per year Popular Mentions

- Nitesh Rai 1st (MME 2017),
- Krutika Talegaonkar 8th (BT 2018)
- Manoj Baishya 4th (BT 2019),
- Ankit Kumar 7th (ECE 2019)
- Mukti Ranjan Mahapatra 8th (MME 2019)

Academics (Scholarships etc.)

- Students pursuing Ph.D. under PMRF Scheme (>10) and abroad
- Student Internships at prestigious places like CERN, MIT, Stanford, NUS
- A number of Best Paper Award
- Winner of Smart India Hackathon 2019: Team led by Swati Kanchan
- Gaurav Kumar selected for the Prime Minister Research Fellowship (PMRF)
 December 2018.



Sports & Activities



- Table Tennis (Women) Champion : National Level Sports Fest (Sangram '17)
- Track & Field (Women) 02 Gold & 01 Silver Medals: Inter NIT Meet 2018
- Body Building & Power Lifting (Men) Best Physique: Inter NIT Meet 2018
- Ms. Trishaa Bhattacharya securing best Women Athlete position in the last All India Inter NIT Athletics Championship held at NIT Warangal



Research and Development

BRICS



NIT Durgapur recently steps into the BRICS Research forum. BRICS composing of Brazil, Russia, India, China and South Africa are important players in science and technology competition on the world arena, and they would facilitate their domestic STI development with the multilateral platform. The MOU on STI Cooperation adopted in 2015 is guiding overall cooperation covering sustainable agriculture, food security, natural disasters, water resources and pollution treatment, new and renewable energy, space research, medicine and life sciences, new nanomaterials, photonics, IT, ocean and polar sciences, etc.

During the last few years

900+

5350+

Sponsored projects

Journals published

595+

2370+

PhD degrees awarded

Reviewers of journals

Recent Projects

Title: Universal multi-modal interface for different disabilities

Principal Investigator: Dr. Nilanjan Chattaraj

Co-Principal Investigator: Dr. Sujoy Saha (Co-PI), Dr. Mousumi Saha

Sponsored Agency: Tata Consultancy Services **Month & Year of sanction:** September 2021

Sanctioned fund: Rs. 29,00,000

Title: Introducing protein folding paradigm in misfolding diseases: An attempt to redefine the structural understanding of amyloid aggregation

following nucleated conformational conversion pathway

Principal Investigator: Dr. Sudipta Mondal

Co-Principal Investigator: NIL **Sponsored Agency:** SERB

Month & Year of sanction: November 2021

Sanctioned fund: Rs. 46,00,000

Title: Studies on the effect of anammox group of bacteria for the treatment of wastewater containing nitrogenous contaminants

Principal Investigator: Dr. Apurba Dey

Co-Principal Investigator: Dr. Tamal Mandal, Dr. Dalia Dasgupta Mandal

Sponsored Agency: SERB

Month & Year of sanction: December 2021

Sanctioned fund: Rs. 33,00,000

COES



It has been established as a joint venture between the departments of Physics & Metallurgical & Materials Engineering, in 2013 through a generous grant of the MoE, Govt. Of India under its Technical education quality improvement (TEQIP-II) program.

Centre for Advanced Research on Energy

The aim of this center is develop technologies for taking proactive roles in transforming sustainable economic growth of the eastern region of India.



Centre for Biomedical Engineering & Assistive Technology (BEAT)

The Centre is focused on specific research to solve complex biomedical problems that are crucial to human welfare and society, in general. It invites multidisciplinary perspective that includes engineering sciences, physical sciences mathematical, and biological sciences.

Centre of Excellence on IoT and Intelligent Systems (IoTIS)

It focuses on advanced interdisciplinary research activities in the area of Internet of Things and assistive technologies related to Intelligent Systems to cater to the needs of the society. Another goal is to meet the challenges of the nation by encouraging research and entrepreneurship in interdisciplinary areas, encompassing engineering, sciences, and social sciences.

Centre for Research on Environment and Water (CREW)

A centre with a multidisciplinary approach towards advanced research on environment and water. It aims to develop the expertise to assist industry and civic administrations in developing and implementing evaluation, remediation or management strategies for contamination issues and develop technologies to convert wastes to value-added products wherever feasible



HEFA

- G+10 Storied Central Research & Academic Laboratory Building
- Central Research Facility (CRF)
 - Physical Characterization Facility
 - Chemical Characterization Facility
 - Mechanical Characterization Facility
 - High Performance Computing and Storage
 - Electrical and Electronics fabrication and characterization Facility
- Central Laboratories
 - Physics Laboratory
 - Chemistry Laboratory
 - Basic Electrical Engineering Laboratory
 - Basic, Analog and Digital Electronics Laboratory
 - Computation Laboratory
 - Process Control Laboratory Language Laboratory
- Some major instruments under centralized facility
 - FE SEM
 - o XRD
 - US-Vis Spectrophotome
 - Solar Simulator
 - Gas Chromatograph Mass Spectroscope
 - Spin Coater
 - 16 Atomic Force Microscope Atmoic Absorption
 Spectrocscope



Equipments



UV-Vis Spectrophotometer



Field Emission Scanning Electron Microscope



Atomic Absorption Spectroscope



Solar Simulator



Atomic Force Microscope



X-Ray Diffractometer



International Collaborators



Universita Degli Studi Di Parma, Via Universita 12, 43124 Parma, Italy



Brno University of Technology, Czech Republic



Caledonian College of Engineering (CCE) Muscat, Oman



Far Eastern Federal University (FEFU), Russia



Federal University of Rio De Janeiro, Brazil



Hanyang University, Seoul, Republic of Korea



Hohai University, China



Ming Chi University of Technology, New Taipei City, Taiwan



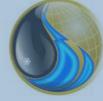
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The University of Nottingham, United Kingdom



Tianjin Polytechnic University China



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Indian Institute of Technology, Delhi



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Jawaharlal Nehru University, New Delhi



National Institute of Technology, Hazratbal, Kashmir



Durgapur Steel Plant, Durgapur



MoU between NITD & NHPC Limited, Faridabad, Haryana



Central Board of Irrigation and Power, Delhi



Aaranya Biosciences Private Limited, Nacharam, Hyderabad



Tata Consultancy Services Ltd.



TCG Centres for Research and Education in Science and Technology



CSIR-CMERI, Durgapur



Semi-Conductor Laboratory, Dept. of Space GOI, SAS Nagar, Punjab

Our Fight Against COVID-19



An affordable, plug-and-use, and easily maintainable semiautomatic AMBU Bag ventilation system named 'PRANESH'. The system has been tested by agencies prescribed by ICMR and has successfully cleared the tests.

An IR based non-contact thermometer was developed which can detect the body temperature and is suitable for use in various public places with an accuracy of 0.02°C.





An oxygen concentrator was developed by the Mechanical Engineering department, named "Pranayam" with a capacity of 5 litres per minute and oxygen concentration upto 94 %.

A sanitization machine to sanitize the items inside it using UV-C rays. The essential items, for daily use, such as mobile, spectacles, mask, and gloves having height less than 6 inches and width 2 ft. can be sanitized within 4-5 minutes using this





A dynamic UV-C based Sterilizer was developed, which is capable of sanitizing large areas. This is a sustainable technology to act as room sanitizer machine to disinfect the room's floor area which come to the direct exposure of UV-C lights.

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Located 14 km away is the Kazi Nazrul Airport whose flights connect major cities like Delhi, Bengaluru, Hyderabad, Mumbai, Chennai. The nearest International airport is the Netaji Subhash Chandra Bose International Airport, Kolkata.

Located 9 km away is one of the cleanest railway stations in India, the Durgapur railway station. It is well connected to all the major cities such as Delhi, Howrah, Mumbai. There are express and superfast trains, including the Rajdhani Express, that halt here.

The road connectivity is well developed. The inter and intrabus services in the city are regular and efficient. NH2 and SH9 pass through the city. Kolkata is just about 3 hours away by road.

