GNIT

GURU NANAK INSTITUTE OF TECHNOLOGY

nirf 2020, 2021

NAAC A+

Accredited Institute

JIS GROUP

Educational Initiatives

QS I·GAUGE INDIAN UNIVERSITY RATING — GOLD RANK

Accreditations, Affiliations & Approvals

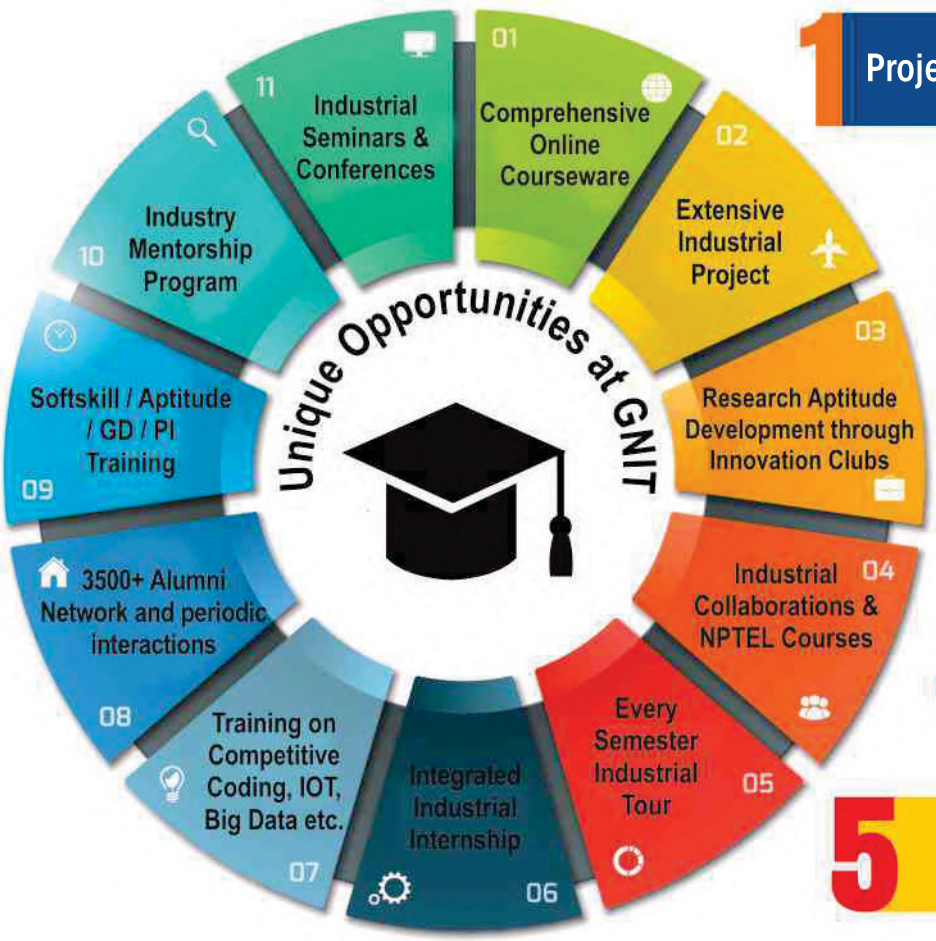
UGC	NAAC	WBSCT & VE & SD (formerly WBSCTE)	NBA	MAKAUT (formerly WBUT)	AICTE
ज्ञान-विज्ञान विमुक्तये			NATIONAL BOARD OF ACCREDITATION	Utech	

Vision of The Institute

To ignite young minds with creativity and empowering lives and educate them to produce a galaxy of young professionals of outstanding ability who can become leaders in their profession and responsible citizens who can meet the challenges faced by the society.

Mission of The Institute

- To meet the demands for skilled manpower on a global basis in the field of engineering, technology and management
- To inculcate amongst the students and inspire them to take up higher studies and research
- To impart high quality education by providing the ambience needed for developing requisite skill for excellence in education and industry



1 Project Based Learning

2 IEEE, ISTE, IE(I) Student Chapter

3 Employability Traning

4 Technology & Cultural Fests

5 Co- Curricular Activities,NSS

PRINCIPAL'S MESSAGE

Guru Nanak Institute of Technology (GNIT) was established in the year 2003 by the Guru Nanak Educational Trust. GNIT is an unit of JIS Group Educational Initiatives, a premier education service provider in West Bengal, having 30 institutions, 25,000 students offering 72 \ academic programmes. Instituted with a vision to empower aspiring professionals with technological knowledge and professional expertise. This technical campus offering undergraduate and post graduate courses under Maulana Abul Kalam Azad University of Technology (MAKAUT formerly WBUT), approved by NAAC, UGC, NBA, AICTE is located in one of the prime locations in North Kolkata. The institute offers global standard initiatives and innovations undertaken by both the faculty members and the students to enrich and enhance the teaching learning process. This approach equips the students to keep pace with the dynamic evolution of science and technology both in academics and industry. The trend-setting academic endeavors of GNIT have produced some of the finest scholars and ace industry professionals amongst our alumni who have brought fame and laurels for both the institute and themselves.

The Institute is located at the industrial hub of Sodepur, well connected by road and railway and in near proximity to Kolkata International Airport and to Howrah, Sealdah and Kolkata railway stations, which are the gateways' to the city of joy. The serene and aesthetically developed campus is highly conducive for quality academic endeavors. The entire campus is smoking free & plastic free to ensure an eco-friendly and pollution free environment. The college has an enrollment of around 2000 students pursuing various degree engineering courses.

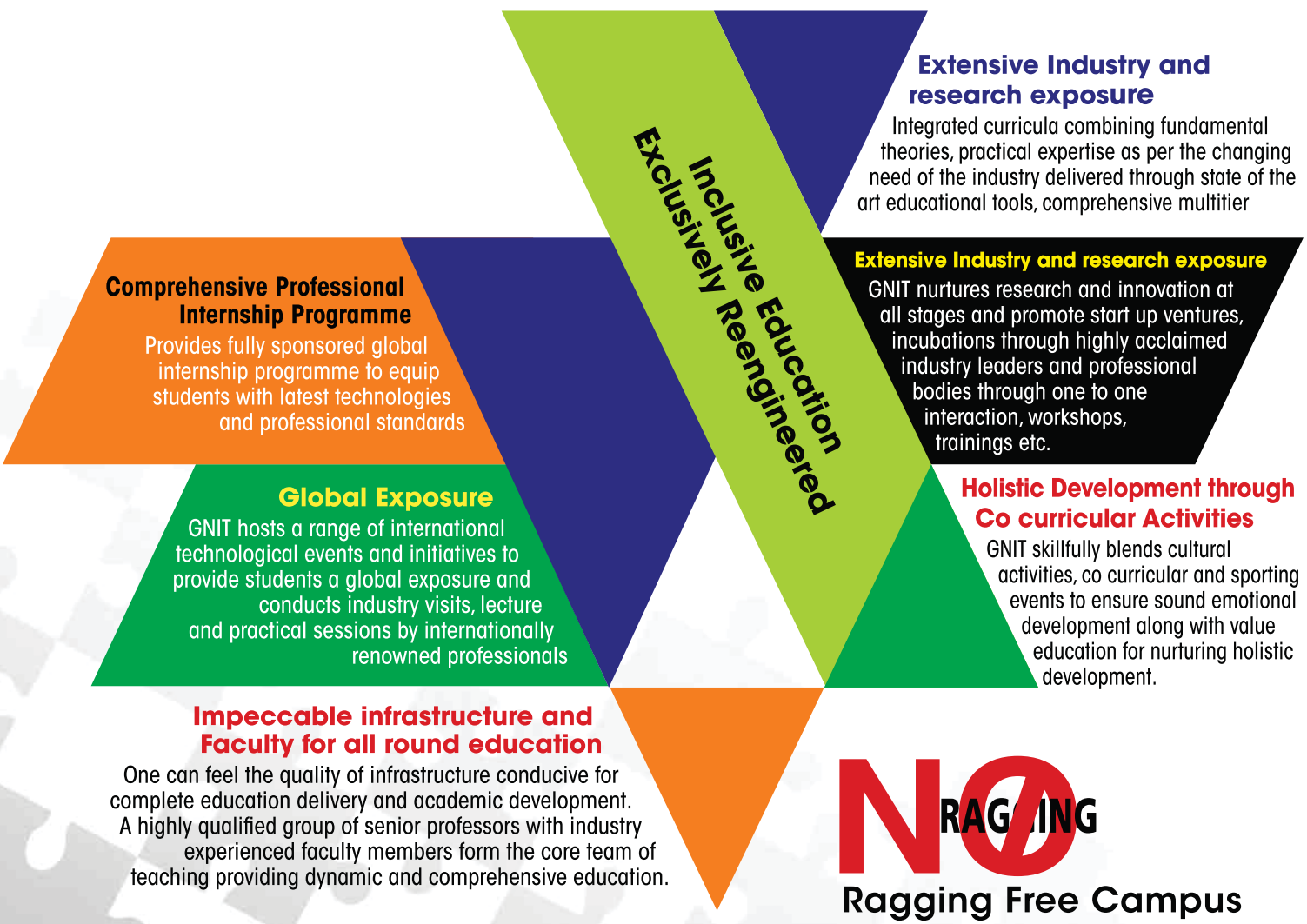
I welcome all the students at GNIT wish them a very bright and prospective career.

Sincerely
Prof. (Dr.) Swarup Kumar Maity
Principal, GNIT

Affiliation and Accreditations:

1. First institute in India to receive prestigious QS-IGAUGE Gold Rank.
2. Best Engineering College award from ASSOCHAM
3. Second State Rank in Times Engineering Institute Survey and among top 150 colleges in India (i3RC 2017 Survey)
4. Accredited by NAAC (National Assessment and Accreditation Council)
5. Approved by AICTE (All India Council for Technical Education)
6. Affiliated to MAKAUT(formerly known as WBUT)
7. Autonomous Institute status conferred by UGC and Ministry of Higher Education, WB
8. Rated A+ among top Engineering Colleges in West Bengal (Source : Career 360).
9. Affiliated to WBSCT & VE & SD (for Diploma Programmes)

GNIT: Gateway to a fruitful career



NO RAGGING

Ragging Free Campus

ADMISSION GUIDELINES

Admission to all courses at GNIT is done through the Admission Cell and it offers one - to - one integrated career counselling to all national and international students and provides initial guidence and assistance on accommodation and hostel facilities, food habits, cross-cultural issues and initial mentoring to help the students to get acquainted with the system, safe secured and growing.

Admission cell provides integrated guidence to parents & students and counsel them, emphasizing on the following

i) Guidance in the choice of the subject and desires mapped with eligibility.
ii) Rules and regulation of the college.
iii) Manners and etiquette.
iv) Accommodation/ Hostel/ Food Arrangement etc.

To Book a counselling session log on to www.gnit.ac.in or Call at +91 -0-9432012681 / +91 -0-9073683911 or Whatsapp at +91 -9432012681

Eligibility For Admission

Programme	Branch	Eligibility Criteria
B.Tech	Computer Science & Engineering (CSE) Electronics and CommunicationEngineering (ECE) Information Technology (IT) Electrical Engineering (EE) Food Technology (FT) Electronics and Computer ScienceEngineering (ECS)	10+2 standard or equivalent with Physics & Mathematics along with any one of Chemistry / Biology / Biotechnology / Computer Science / Computer Application/Technical Vocational Subject as compulsory subjects with individual pass marks (Theory & Practical) and having minimum 45% marks in the above subjects (40% for reserve category) and at least 30% marks in English + valid score/rank in WBJEE/JEEMAINS/CEE-AMPAI-WB in current academic year
B. Tech – Lateral Entry	Computer Science & Engineering (CSE) Electronics and Communication Engineering (ECE) Information Technology (IT) Electrical Engineering (EE) Food Technology (FT) Electronics and Computer Science (ECS)	Diploma & B.Sc. Degree holders having at least45% marks (40% in case of Reserved Category) With valid WBJELET score (Pass marks in XII Standard with mathematics in case of B.Sc. Degree Holders.)
M. Tech	Computer Science & Engineering (CSE) Electronics and Communication Engineering (ECE)	Bachelor Degree or equivalent in the relevant field with current year GATE/PGET/CEE-AMPAI-MASTERS rank or score
MCA	Master of Computer Application (MCA)	50% marks in 10+2 or equivalent and 50% marks in BCA /Bachelors Degree in Computer Science Engineering or Equivalent Degree with Current year WBJECA / CEE-AMPAI-MASTERS rank.
Diploma	Electrical Engineering (DEE) Electronics & Tele-Communication Engineering (DTCE)	10th Standard or equivalent with current year's valid JEXPO rank
Diploma-Lateral Entry	Electrical Engineering (DEE) Electronics & Tele-Communication Engineering (DTCE)	Passed 10+2 examination / H.S. (Vocational) examination of WBSCT & VE&SD / equivalent examination with Physics/ Mathematics/ Chemistry/ Computer Science/ Electronics/ Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational Subject/ Agriculture/ Engineering Graphics/ Business Studies/ Entrepreneurship. OR Passed 10th + 2 years ITI (continuous) in annual system or Semester system with current year's VOCLET rank.

International & National Events at GNIT

Associated With

AIT, Bankok

BCCI

IE (I)

CII

ISTE

ECAM LYON, School of Engineering, France

MSME

INFOSYS

NASSCOM

Department of Computer Science & Engineering

Pioneering Intelligent Technology to Connect the World

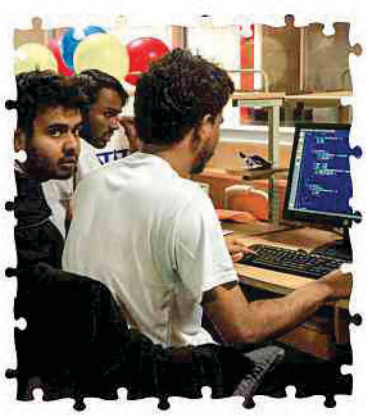
Vision of the Department:

To achieve its own vision the Department of Computer Science and Engineering is committed to

DV: To produce proficient professionals of global standard with respect to industry, academia, and entrepreneurship who can play a key role in their respective domain and become a responsible citizen for the sustainable growth of the society.

Department of Computer Science and Engineering has positioned itself as a robust unit to facilitate learning and skill enhancement, augmenting bright career opportunities, innovations and techno- commercial applications. It blends theory and practice with realistic hands on skills to equip graduates meeting the industry needs and mentor professionals for the industry in line with Government of India's mission to bridge the digital divide, smart E Governance and harnessing the potential of data analytics and ICT for a bright, congenial and secured nation.

The CSE Department provides Technological Leadership and Facilities as the Host Center of the internationally most prestigious computer coding event ACM ICPC.



acm International Collegiate Programming Contest

IBM event sponsor

Mission of the Department:

To achieve its own Mission the Department of Computer Science and Engineering is committed to

DM1: To impart quality education with holistic development to produce professionals with leadership traits.

DM2: To impart knowledge on emerging technologies and entrepreneurship skills to produce technocrats of global standard and entrepreneurs.

DM3: To promote interdisciplinary work culture and opportunity to work in a team through collaborative research and project work.

DM4: To inculcate professional ethics and moral responsibility for a better society.

Program Educational Objectives (PEOs)

Three to five years after graduation, the Department of CSE expects its four-year, **B.Tech in Computer Science and Engineering** program graduates to have achieved the following:

PEO1: Our graduates will establish themselves as effective professionals in industry, academia and entrepreneurship.

PEO2: Our graduates will become profound researchers in multiple domains.

PEO3: Our graduates will act as a leader in society.

DM4: To inculcate professional ethics and moral responsibility for a better society.

PSO of CSE Dept:

Our undergraduate program students will able:

PSO1: Ability to use efficient algorithm for designing and developing software applications and products.

PSO2: Ability to correlate computer science and core engineering subjects to solve real life problems across multiple domains.

PSO3: Ability to write code efficiently in competitive environment in national and international platform

Degree Offered

4 Years Bachelor in Technology

The programme combines diverse frontiers of computer science and trains in integration and design of hardware and software application in large scale software systems with a focus on security and intelligent system requirements and provides comprehensive expertise on the industrial practices and projects.

Intake Capacity: 120 students

2 Years Masters in Computer Engineering

Intake Capacity: 9 students

Career Opportunity

- Software Development
- Android System Development
- Integration Jobs
- Handling Big Data, Financial and Banking
- Database Management & Data Analytics
- Management of Enterprise Network & Cyber Security
- Multimedia and Animations, Digital Gaming

Specialized Facilities

- Dynamic Programming Environment and Competitive Coding
- Ai and Machine Learning
- Cyber Security and Cloud Computing
- Data Science and Big Data
- Web and Android Development

DISTINGUISHED ALUMNI

Debadeep Pharikal
Working as Enterprise Architect at Ford Motor Co.USA
GNIT provides the best professors, courses and collge experiences and produces innovative leaders. My experience at this institution allowed for academic and personal growth, which has embedded quite a zealous spirit within me, especially in regard to the achievement of my future aspirations in IT sector.

Sagnik Dutta
Working in Amazon.com and a leading TeesHood-a successful entrepreneurial venture.

Bipasha Banerjee
Working as Programmer Analyst at Thomson Reuters
GNIT provides its students with a plethora of opportunities. It has large campus, good infrastructure and plenty of study materials equipped to support academic growth.

Department of Electronics & Communications Engineering

Embedding Skills at Global Standards

Vision of the Department :

To impart **quality education and excel in research** to create **centre of excellence** in the field of Electronics & Communication Engineering to produce **outstanding professionals** to become **future leaders** and **responsible citizens**.

Department of Electronics and Communications Engineering provide a competence driven learning at par with the highly demanding and dynamic career in industry and research. The impeccably mapped curriculum with career requirements and practical project oriented teaching has made the programme a seat of integrated learning. The research orientation and fostering innovations bring out the talent in creative designs of equipments and developing hands on expertise.

Mission of the Department :

DM1: To impart high quality education with innovative teaching-learning methodologies

DM2: To impart knowledge on innovative field of engineeringand provide opportunity to work in a team on interdisciplinary projectsfor empowering ability to become successful professionals

DM3: To carry out high quality research through collaboration and interaction with research organizations and industries

Dm4: To motivate to follow professional ethics and encourage to work for the sustainable growth of the society

Program Educational Objective (PEOs)

The Program Educational Objectives (PEOs) are established such that the program is preparing graduates to achieve career and professional accomplishments. Our graduates will be able

PEO I: To build up the concept of **core electronics subjects** with a strong foundation in the **engineering fundamentals** to **solve, analyze and design** the **real-life engineering problems**.

PEO II: To impart training on **emerging technologies** and provide opportunity to work in a **team** on **interdisciplinary projects** to inculcate **leadership quality.**

PEO III: To foster **interdisciplinary learning environment** to succeed in their **profession, higher education, research** and **entrepreneurial development.**

PEO IV: To imbibe **ethical attitude and life-long learning capability.**

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Po8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Po12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Objective (PSOs)

Engineering Graduates will be able to:

Graduates of ECE program will be able:

PSO 1: To acquire deep analytical knowledge of Electronics and Communication Engineering to meet requirements of global consumers in Devices and communication sector aand contribute to the society through govt. and Non Govt. Sectors.

PSO 2: To develop integrated systems in the field of Electronics and Communication by applying modern tools and skills to meet the challenges in Industry.

PSO 3: To apply innovation in the field of communication for designing IoT based systems along with AI and ML

Degree Offered

4 Years Bachelor in Technology Intake For B.Tech: 120 students2 years M.Tech in Mobile Communication and Networking Technology

Intake For M.Tech: 9 students

3 years Diploma in Electronics and Telecommunication Engineering (affiliated by WBSCT & VE & SD) Intake Capacity 60 students

Career Opportunity

Telecommunications, Intelligent Systems and Control Engineering

Embedded Technology, VLSI and Robotics

Electronics Component, IC Design and Manufacturing

Computer Engineering, Digital Media Processing

Specialized Facilities

A wide range of application oriented competencies with core specializations in VLSI & Microelectronics, Communication, Image processing & Neural Network and Embedded system are delivered through curriculum including a strong self-study component and mini projects at all levels so as to develop the students` independent analytical abilities. Opportunity for innovation and incubation is provided at this stage to successful projects by the institute for industrial standards. ECE department promotes active cross functional collaborative research in areas like robotics, human computer interface, SMART sensor etc. Vigorous exposure in Software Simulation environment (MATLAB, Ansoft HFSS, ORIGIN Tanner EDA Tools, FPGA Intellisuite, COMSOL, VISSIM etc.) accelerate learning and competence development.

Specialized Laboratory

- Analog/Digital Communication
- Advance Communication
- Basic Electronics
- MicrowavelAntenna
- VLSI & Microelectronics / DSP
- Analog Electronics
- **Digital Electronics**

DISTINGUISHED ALUMNI

Sayan Sen Gupta

Working at
Oracle DBA Systems Engineer
Tata Consultancy Services

Samadrita Bhattacharjee

Working at
Amazon, India

Department of Food Technology

Technology to one of the Biggest Economies in the world

VISION OF THE DEPARTMENT:

Keeping in line with the Institutional Vision, the Departmental Vision is:

DV: To become a nationally and internationally recognized institution of Food Technology by producing competent food technologists with respect to industry, research and entrepreneurship leading towards sustainable growth of the nation and imparting service to the society.

Food Technology is a multidisciplinary field of engineering, applied physical sciences & microbiology. Food processing industry is one of the largest industry in India and is ranked 5th in terms of production, consumption and export. It generates consistently huge employment opportunities in food processing, industries handling products of fruits and vegetables, dairy, meat, poultry, fishery, consumer's foods, grains, alcoholic drinks, aerated water, soft drinks, spices etc.

One of the prestigious MOFPI Funded specialized Laboratory in the Country

MISSION OF THE DEPARTMENT:

To achieve its own vision the Department of Food Technology is committed to

DM-1: To facilitate high quality teaching to produce graduate of international standard

DM-2: To prepare students to face challenges in their professional life through skill development

DM-3: To promote interdisciplinary work culture to acquire knowledge through research activities and interaction with industries

DM-4: To motivate students towards sustainable development of the nation and society through professionalism, proper education, research and social service.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

PEO 1: Graduates will apply the knowledge of engineering to design product and process by analyzing and interpreting experimental data

PEO 2: Graduates will use modern techniques, skills and engineering tools necessary in food processing sectors for sustainable development.

PEO 3: Graduates will impart knowledge of professional and ethical responsibilities toward the society.

PEO 4: Graduates will work in multi-disciplinary fields as a teamplayer or a teamleader.

PEO 5: Graduates will pursue higher education, research and other creative and innovative efforts in food technology domain through life-long learning.

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

Po8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Po12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Specialized Facilities

Food Microbiology
Food Processing Technology
Unit Operations
Food Analysis and Quality Control
Chemistry of Food
Bio Chemistry
Microbial Technology
R & D Lab

Degree Offered
4 Years Bachelor in Technology

A multidisciplinary programme of significant social and economic importance and catering wide range of highly rewarding career opportunities consistently through the years. It is an ideal launch pad for R&D Career and Higher Studies at International Levels. Intake Capacity: 60 students.

"My UG journey with FT Department was memorable. Being mentored by extraordinary faculties and getting world class research and practical experience was very essential foundation for future."

Mr. Debjit Ghosh

International Business Development Manager and Private Public Partnership Project manager Donlimon, Hamburg, Germany

Career Opportunity

Food Processing
Dairy Technology `
Manufacturing of alcoholic drinks, aerated water, soft drinks.
Meat, Poultry, Fishery
Industries handling products of Fruits and Vegetables, Consumer's Foods, Grains, Spices etc

Department of Electronics & Computer Science Engineering

Engaging Technology Enriching Life and Transforming Economy

Vision of the Department

The Vision of the department is to create Electronics & Computer Science Engineers with outstanding technical competency in software and hardware to impart research aptitude for societal benefit.

This course provides the perfect balance of best of both worlds – Software driven by hardware which makes the transition to the world of job opportunities feel seamless.

The graduates from this course will be well equipped with the essential technical knowledge in both the fields of hardware and software, which in turn will widen the scope of job as well as research.

Apart from fundamentals of Electronics, ECSE graduates get an exposure to build smart systems that involve sensors, processors, actuators, communication networks and IoT. The students will also get to work in the domains of data science and data analytics.

This program will give exposure to advanced level knowledge in the design of complex software enabled electronic and microelectronic hardware systems.

Being an Electronics and Computer Science Engineering one gets to solve technical problems and develop products which lead to an overall intellectual development.

Mission of the Department

M1: To provide high quality technical education and training in response to the changing needs of industries and society through an innovative learning process related to Electronics and Computer Science.

M2: To develop employable and competent Electronics & Computer Science Engineers with high academic credentials and to inspire them to take up higher studies and research.

M3: To contribute towards the betterment of society by imparting practical skills and technical knowledge to the students.

M4: To make engineers with high professional ethics, social and human values and responsive to community needs.

Program Educational Objective (PEOs)

The Program Educational Objectives (PEOs) are established such that the graduates from this program can achieve their goal in their professional fields.

These program educational objectives are as given below:

PEO1: Graduates of Electronics & Computer Science program will be able to incorporate their knowledge to excel in professional career and also use the fundamental knowledge to enhance the power of invention, innovation & entrepreneurship.

PEO2: Graduates of Electronics & Computer Science program will have strong foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyze engineering problems related to industry and research through lifelong learning.

PEO3: Graduates of Electronics & Computer Science program will be able to inculcate the professional and ethical code of conduct, communication skills, and team work so as to use technology for the progress to the society.

PROGRAM OUTCOMES (Pos)

Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

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PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Objective (PSOs)

Engineering Graduates will be able to:

PSO 1: Apply the fundamental knowledge of core Electronics and Computer Science domains in the analysis, design & development of different types of integrated electronic systems and also can utilize their fundamental concepts and methodology of computer systems in terms of software and hardware used in industrial environments.

PSO 2: Apply fundamental concepts and methodology of Electronics and Computer Science to establish themselves as a successful entrepreneur.

PSO 3: Use scientific & engineering fundamentals, skills & tools to formulate, solve & analyze software and hardware problems related to industry & research in the field of Electronics and Computer Science.

Degree Offered

4 Years Bachelor in Technology

- This field offers job opportunities, industry growth and good pay-packages as compared to all other branches.
- Placement opportunities in all the major sectors like software industries, core industries and communication industries.
- Modern and upcoming technology with opportunities for placement all over India.
- Wide scope of pursuing higher studies particularly for M.E / M. Tech / MS in India and abroad.

Intake Capacity : 30 students

Career Opportunity

- **Public Sector Units:** National Thermal Power Corporation (NTPC), Steel Authority of India Ltd. (SAIL), Indian Oil Corporation (IOC), Steel Authority of India Limited (SAIL), Oil and Natural Gas Corporation (ONGC),Gas Authority of India Ltd. (GAIL),Bharat Sanchar Nigam Limited(BSNL)etc.

- **Private Sector Units (hardware/automation):** Reliance Industries, Tata Steel, Honeywell Automation, Texas Instruments, ABB, Larsen & Toubro, Robert Bosch,Johnson Control,Tata Motors, National Instruments etc.

- **Private Sector Units (software/IT):** Tata Consultancy Services (TCS), Cognizant Technology Solutions (CTS), International Business Machine (IBM),Infosys, Wipro, Accenture, Capgemini, Price Water House Coopers (PWC), RS Software etc.

Departmental Infrastructure

- **The Department is enriched with PhD Qualified faculty & Industry Experienced Faculty Members with 15+ years of experience.**
- **Technical Assistants with 12+ years of experience.**
- **There are 6 state-of-art laboratories with all modern facilities and high-end computers.**

Department of Electrical Engineering

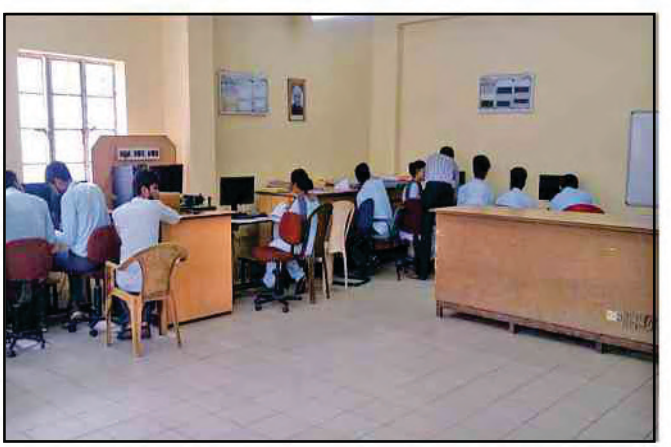
Empowering Lives through Enriching Education

VISION OF THE DEPARTMENT

To achieve its own vision the Department of Electrical Engineering is committed To produce **new generation technologists and entrepreneurs** with **innovation and advanced research** by inculcating **world class education** to meet **industry expectations** and impart **sustainable growth of the society** in global perspective.

Department of Electrical Engineering aims to provide advance education in engineering that is relevant to electrical power generation, transmission, distribution and its utilization. Electrical engineering is a broad field of engineering which deals with the science and technology involving electricity, electronics, and electromagnetism, to design, construct, and maintain products, services, and information systems. Electrical engineering is the historical parent of what is now called electrical, electronics, and computer engineering.

Electrical Machines Lab



Measurement Lab

MISSION OF THE DEPARTMENT

To achieve its own mission the Department of Electrical Engineering is committed

DM1: To impart **quality education** and **innovative teaching learning** methodologies.

DM2: To develop **professionals** with the ability of **critical thinking** and **innovativeness** to face the real-life challenges in their respective domain.

DM3: To inculcate an urge of entrepreneurship, research and pursue higher studies.

DM4: To imbibe the spirit of moral **values and ethics** for the **sustainable growth** of the society.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: To implant strong foundation in Science, Mathematics and Electrical Engineering to become **successful professionals.**

PEO2: To impart knowledge on **emerging technologies** and **entrepreneurship skills** to produce **future leaders.**

PEO3: To train students in developing **ethical attitudes**, strong **communication skills** and capacity to relate engineering issues in **social and environmental context**.

PEO4: To facilitate opportunity to work in a **team** in **interdisciplinary projects** for building **leadership qualities.**

PROGRAM OUTCOMES (POS)

PO1: Engineering knowledge -Ability to apply the knowledge of mathematics, physical sciences and computer science and engineering specialization to the solution of complex engineering problems.

PO2: Problem analysis -Ability to identify, formulate and analyze complex real life problems in order to provide meaningful solutions by applying knowledge acquired in computer science and engineering.

PO3: Design-development of solutions -Ability to design cost effective software - hardware solutions to meet desired needs of customers-clients.

PO4: Conduct investigations of complex problems –Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in the field of computer science and engineering.

PO5: Modern tool usage -Create, select and apply appropriate techniques, resources and modern computer science and engineering tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The engineer and society - Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Po12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

PROGRAM SPECIFIC OBJECTIVES (PSOS)

PSO1: To explore the ideas, methodologies and **cutting-edge technologies** in **Renewable Energy** and **Electric Vehicles** for gaining competence to solve energy related problems.

PSO2: To analyze, design and provide an **engineering solution applying knowledge** of Embedded System, Smart Grid, Power Electronics and Electric Drives.

PSO3: To use **modern software tools** for simulation, analysis and designing electrical and electronic Systems.

4 Years Bachelor Degree in Technology
Intake Capacity: 120 students
3 years Diploma in Electrical Engineering (affiliated by WBSCT & VE & SD)
Intake Capacity: 60 students

Electrical Engineering is one of the most exciting branches in the world. It lies at the very core of all infrastructure-building as well as developmental processes. The course provides an in-depth knowledge and competence into an interesting arena of power generation, transmission, distribution, utilization and mathematical analysis of all such systems.

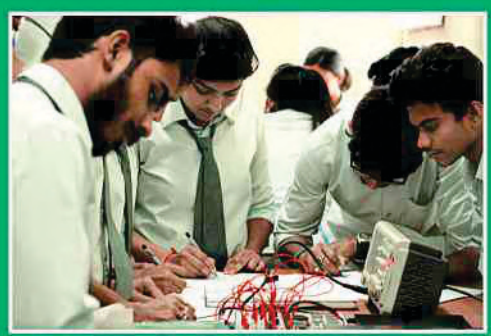
Career Opportunity

- Power Generation and Control Engineering
- Power Transmission and Distribution
- Design and Manufacturing of Electrical Machines
- Device Design and Manufacturing
- Sustainable and Renewable Energy
- Services and Maintenance Industry
- Design and Implementation of Electrical Projects and Intelligent Systems

Domain of Specialization

- Power Electronics
- Electrical Machines
- Control System
- Measurement & Instrumentation
- Basic Electrical Enginnering
- Power System, Power Transmission and Distribution
- Electric Drives
- Solar and Other Renewable Energy
- Testing of equipments and Application
- Software Pspice, Matlab, Multisim, My Power, Autocad, Etap and Pscad etc.

Project Based Learning Class



Practical Class

ALUMNI SPEAK

"I will never forget the 4 years that I spent in GNIT. The colourful fests.....Thank you GNIT for providing me with such a great infrastructure and amazing faculty who helped me throughout my tenure. And not to forget Placement Cell who gave me such a wonderful and great opportunity."

Abdulla Mamun
Hexatech International W.L.L Doha, Qatar

Department of Information Technology

Spearheading Smart technology and Expanding Opportunity

VISION OF THE DEPARTMENT :

The vision of the Information Technology is to make leaders in Information Technology education in support of teaching and learning, and also to be the preferred source of quality technology education, research and community services delivery for the local, national and international levels.

The Department of Information Technology serves to integrate the benefit of Engineering, Science and Technology with National priorities and business opportunities. The department nurtures research and innovation and transform talents into IT professionals. The department is renowned for its quality education, placement, discipline and very good learning environment for the students. The department has an impeccable track record of producing brilliant alumni over the years who are performing creditably well with corporate giants like Infosys, TCS, Capgemini, Amazon, ITC, Cognizant, TechMahindra, Wipro, Tally, Accenture etc. A good percentage of students have gone for higher studies in reputed institutes of USA, Europe and India. The aim of the department is to enable students to acquire specialized technological skills, scientific knowledge, as well as to provide a basis for their personal, social and cognitive development.

The Technical Backbone of the Biggest Digital Movement in the world, Smart India Hackathon at GNIT Nodal Center (2017, 2018) Organized by MHRD, Government of India, AICTE

MISSION OF THE DEPARTMENT :

DM1: To build a quality and cutting edge technology infrastructure.
DM2: Deliver quality, prompt and reliable technology education services.
DM3: Establish and maintain an effective academic environment for students.
DM4: Engage in emerging research areas and establishing leadership.
DM5: Contribute to the community services at large as well as catering to socio-economic goals in local and national levels.

Programme Educational Objectives (PEOs) :

PEO1: To prepare students to excel in graduate school or technical careers through a world-class, rigorous and competitive program in the field of Information Technology.
PEO2: To train students across the spectrum of basic and applied science, recognizing and exploiting common descriptions in disparate systems.
PEO3: To train students with sufficient scientific and Information Technology breadth to design and create novel solutions to real-life problems in computing domain.
PEO4: To develop students professional and ethical attitudes, effective communication and teamwork skills, and an ability to place science and computational issues and solutions within the broader societal context.
PEO5: To provide students with an academic environment committed to excellence and innovation that contributes for developing role ready individual with leadership, professionalism, and life-long learning for professional careers in the field of Information Technology

Programmed Specific Outcomes (PSO) of Information Technology :

PSO1: Graduates will be able to apply basic engineering knowledge to understand and analyze basic-complex problems in the field of Information Technology.
PSO2: Graduates will be able to provide optimized solutions for organizations and individuals through Information Technology specific skills.
PSO3: Graduates will be able to work in a group to manage projects and human resources in the field of Information Technology.
PSO4: Graduates will be able to contribute in the research and development field of Information Technology through the lifelong learning to serve the society and nation.

Program Outcome (Pos) :

PO1: Engineering knowledge: Graduates will be able to apply the basic knowledge in Mathematics, Science and Engineering fundamentals in the domain of Information Technology.
PO 2: Problem analysis: Graduates will demonstrate the ability to design, develop and test systems corresponding to real life problems under consideration including the physical models, interpret and analyze data, and report results and use experimental results for further expansion.
PO 3: Design/development of solutions: Graduates will demonstrate the ability to design a digital system or a computational system or a process that meets demand driven specifications and requirements in Information Technology and research areas.
PO 4: Conduct investigations of complex problem: Graduates will have the ability to identify, formulate and solve service oriented architectural problems.
PO 5: Modern tool usage: Graduates will be familiar with state-of–the-art software tools and to analyze relevant engineering problems.
PO 6: The engineer and society: Graduates will be broadly educated and will have an understanding of the impact of engineering on society and demonstrate awareness of contemporary and emergent issues.
PO 7: Environment and sustainability: Graduates will have the confidence to apply engineering solutions in global and societal contexts.
PO 8: Ethics: Graduates will demonstrate an understanding of their professional and ethical responsibilities.
PO 9: Team work: Graduates will foster team spirit and elevate the enthusiasm in teamwork-concept of sharing in demonstrating their ability in technological solution as a part of specialized engineering and science laboratory teams, as well as on multidisciplinary design teams.
PO 10: Communication: Graduates will be able to communicate effectively in both verbal and written forms.
PO 11: Project Management and Finance: Understand the engineering and management principles and apply these to one's own work as a member and leader of a team to manage projects and in multidisciplinary environment.
PO 12: Life-long learning: Graduates should be capable of self-learning and clearly understand the value of lifelong learning.

Courses Offered:

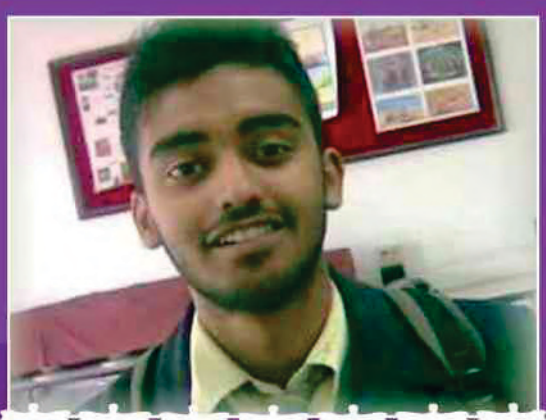
4 years B.Tech course in Information Technology - 60 seats.

Career Opportunity:

- IT Consultancy.
- Cloud Computing & Architecture.
- Computer Forensic Investigator.
- Android App Developer.
- Web Developer.
- Software Engineering.
- Cyber Security.
- Artificial Intelligence & Machine Learning.
- Data Scientist.
- Multimedia & Game Developer.

GNIT Nodal Center, Smart India Hackathon Grand Finale

DISTINGUISHED ALUMNI



Akash Podder

Amazon Development centre India, 2016

Sayantani Neogi

Digital Forensic Analyst, Data 64

Department of Computer Applications

Engaging Technology in an Integrated Globe

VISION OF THE DEPARTMENT

The Department of Computer Applications aims to produce technically competent, skilled IT professionals, researchers and entrepreneurs with the ability to apply their knowledge in IT industry, research & development or in entrepreneurial arena and they can meet the challenges in modern IT industry.

The Department of Computer Application is devoted to impart industry oriented study and research of computer science at graduate and post-graduate levels.The department has the tarck record of producing several batches of young, trained and talented individuals who have made their mark in software like Tata Consultancy Sen/ ices (TCS), Wipro, Cognizant(CTS), Infosys, ITC Infotech, Capgemini BiskFarm, WBSEB and many more. The students are employed in the sectors like coding, testing, data base designing, data base administration, network administration, web designing, cyber security, project management etc. Also the students have done well in higher academics in India and abroad

The combination of competent and vibrant faculty members, modern infrastructure and state-of-the- art technical resources give an edge to the young technocrats. Dedicated Labs, equipped Library, Technical and Communication skills grooming along with regular industry exposure and interaction with various disciplines of GNIT are important value additions & others Sectors Like

Programme Educational Objectives:

PEO 1: To excel in professional career and higher education, research by acquiring knowledge and skills in core and allied domain for holistic development.

PEO 2: To produce successful professionals in industry, government, academic research, entrepreneurial pursuit and consulting firms

PEO 3: To develop the capability to analyze real life problems, design computing systems appropriate to its solutions that are technically sound, economically feasible and socially acceptable.

PEO 4: To exhibit professionalism with strong human values and professional ethics, team work in their profession and adapt modern trends by engaging in life long learning.

Program Specific Outcomes :

PSO 1: Develop the ability to apply knowledge and skills to solve the real life problems.

PSO 2: Develop the ability to work in a team with the ability of leadership, analytical reasoning for problem solving, critical thinking and strong human values of a responsible professional.

PSO 3: Ability to enhance and develop techniques for independent and lifelong learning in computer application.

PSO 4: To acquire In-depth knowledge & sustained learning that leads to innovation and analyze the societal needs to provide novel solutions through technology based research

Program Outcomes :

PO-1: Able to analyze the real life complex problems, formulate suitable solutions with the applications of knowledge and problem solving skills.

PO-2: Master to design and implement computing system to meet the trending modern needs within realistic constraints such as safety, security and social responsibilities.

PO-3: Develop the ability to engage in continuous learning and self-upgrading as a Computing Professional

PO-4: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-5: Ability to understand professional, ethical, legal, moral and social diverse issues and responsibilities.

PO-6: Understanding the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-7: Introduce and involve students with problem analysis, evolutionary tools and formulation techniques related to hardware and software.

PO-8: Ability to work effectively, individually and on teams, including diverse and multidisciplinary domains to accomplish a common objective.

PO-9: Communicate effectively on complex situations with technological views and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-10: Understand the real-world problem and concede professional development by pursuing higher studies and other challenges like examination, interview etc. at national and international level.

PO-11: Appropriately apply research methodologies, techniques and tools, design, conduct experiments, analyze and interpret data in a broader perspective.

PO-12: Demonstrate knowledge, opportunities and use innovative ideas to create ideas for the betterment of the individual, organization and society.

Courses Offered:

Master of Computer Applications (MCA) : 3 years full time course - Intake 60 seats

Area of Specialization:

Advanced Computmg
Big Data
Cloud Computing
Cyber Security

Career Prospects

Artificial Intelligence and Soft Computing
Internet of Things (IOT)
Cyber Security and Cryptography
Big Data with HADOORP
System Administration with Linux
Mobile Commerce & Cyber Law
Cloud Computing
Mobile Application Development using Android
Multimedia Applications in Graphics and Animation

Advanced Computing Lab

Internet and Web Design Lab

DISTINGUISHED ALUMNI

Sandip Sah

MCA 2007-2010 Batch
Employed at
Module Lead at Mindtree Ltd.

Avishek Saha

MCA 2008-2011 Batch
Employed at
Asst.Program Manager at
Govt. of West Bengal

Sampurna Ghosh

BCA 2013-2016 Batch
Employed at
Software Associate at
Wipro Technologies

Saikat Debnath

MCA 2009-2012 Batch
Employed at
Executive at West Bengal
State Electricity Distribution .Co. Ltd
(WBSEDCL)

Abhinaba Chakraborty

BCA 2013-2016 Batch
Employed at
Data Scientist at
Red Hat, Inc.

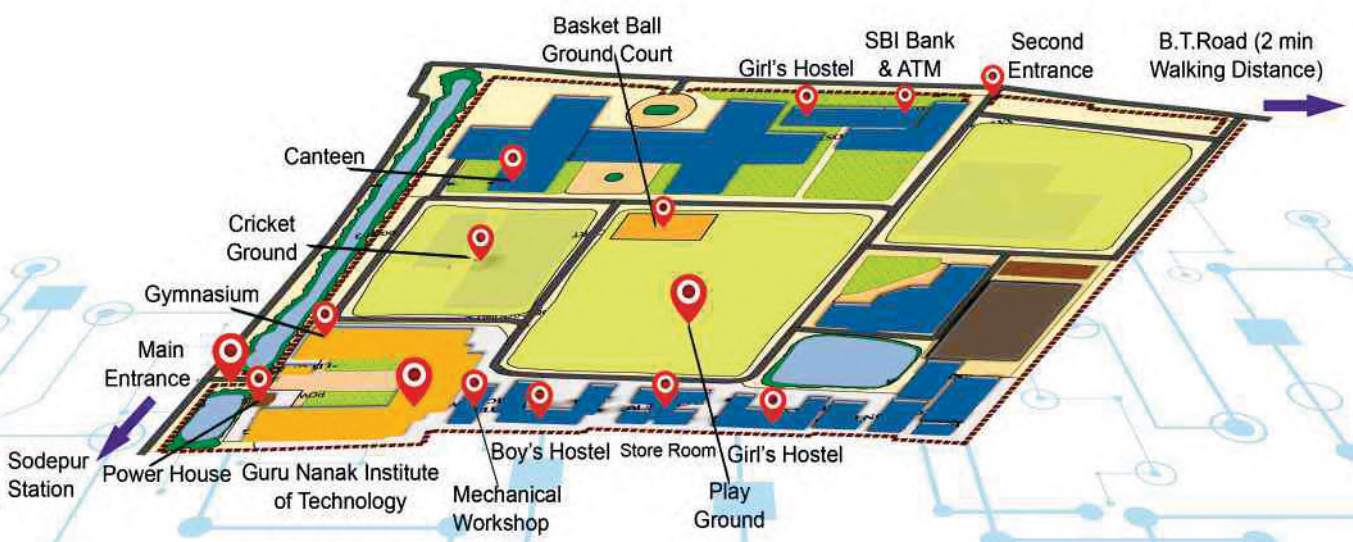
Ranjan Banerjee

BCA 2009-2012 Batch
Employed at
IT Consultant at
ITC Infotech

Some Companies who recruited our Students

Infosys
Capgemini — CONSULTING. TECHNOLOGY. OUTSOURCING
Cognizant
AXIS BANK
TATA — TATA CONSULTANCY SERVICES
SAP
WIPRO
Pinnacle Infotech
amazon
Tech Mahindra
hp
HCL — CAREER DEVELOPMENT CENTRE
GENPACT — Global Business Impact
YODLEE
IBM
airtel
Coca-Cola
ITC INFOTECH — Business-friendly Solutions
priya — The joy of good taste
IndiGo
Poornam Info vision
HDFC BANK
ERICSSON
BISK FARM
accenture — High performance. Delivered.
& many more...

- Sport & Games
- Wifi Campus
- Campus Canteen
- Residential Hostel
- Alumni Association
- Professional Society Activities
- Central Library
- Medical Care & Ambulance
- CCTV Surveillance



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