

www.nshmcampus.com

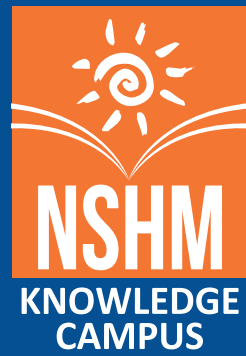
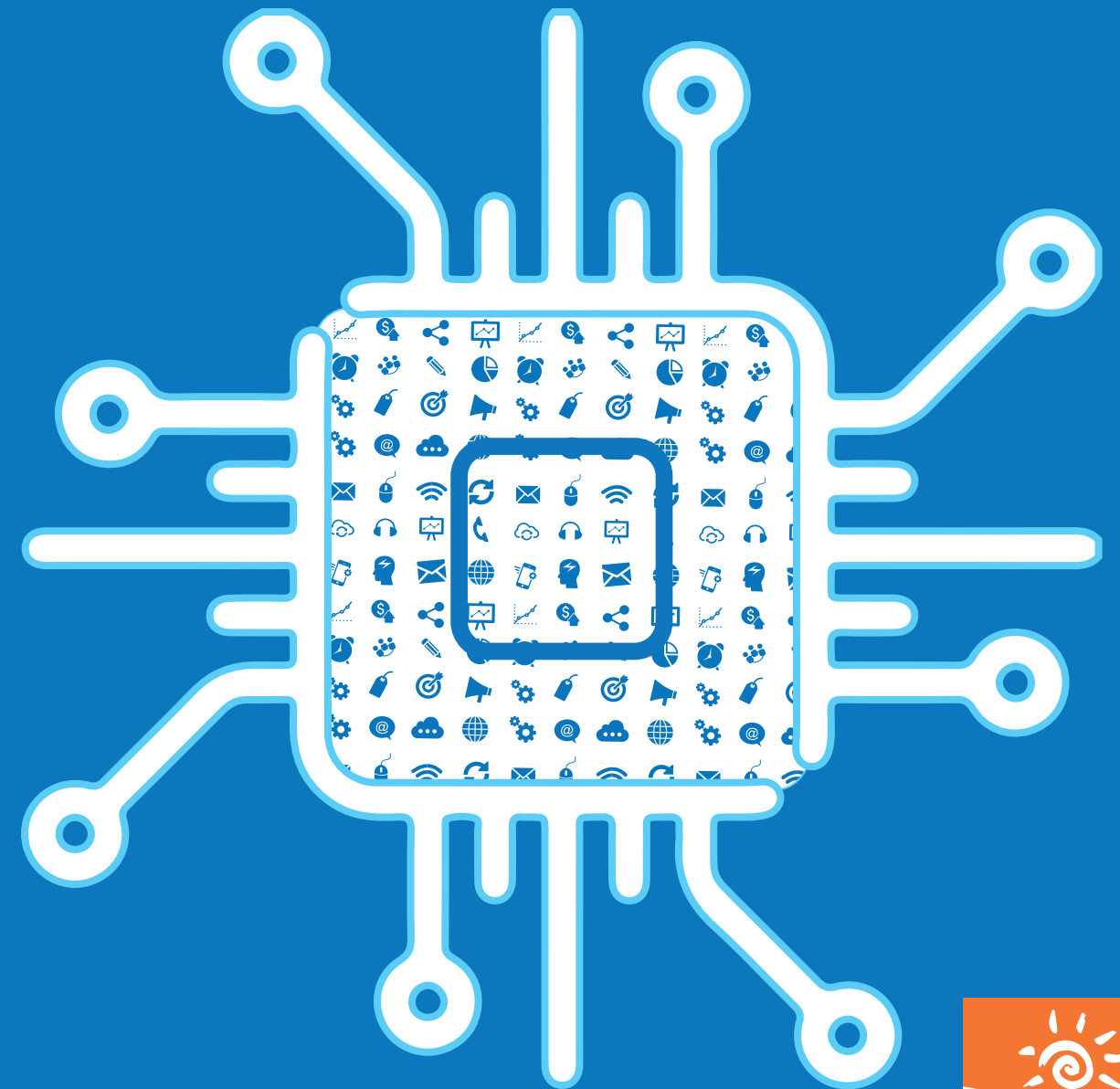
ENGINEERING & TECHNOLOGY

A career built for tomorrow

Disclaimer:

This information booklet of NSHM Knowledge Campus was published in May 2023, and the information given was correct at that time. It is intended primarily for those considering admission to the college in the year 2023. We reserve the right to modify any statement if necessary, to make variations to this content or methods of delivery of programmes of study, to discontinue programmes or to merge or combine programmes. If such action is reasonably considered by the college, every effort will be made not to do so, notice of any changes will be given and the college will use all reasonable endeavours to provide a suitable alternative. Information about specific entrance requirements is intended as a guide only. For campus-specific details, please visit the respective NSHM Knowledge Campus at Kolkata and Durgapur. All disputes are to be settled within the jurisdiction of Kolkata for all NSHM Knowledge Campuses.

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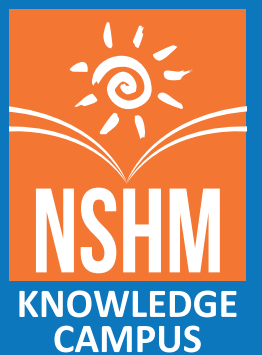


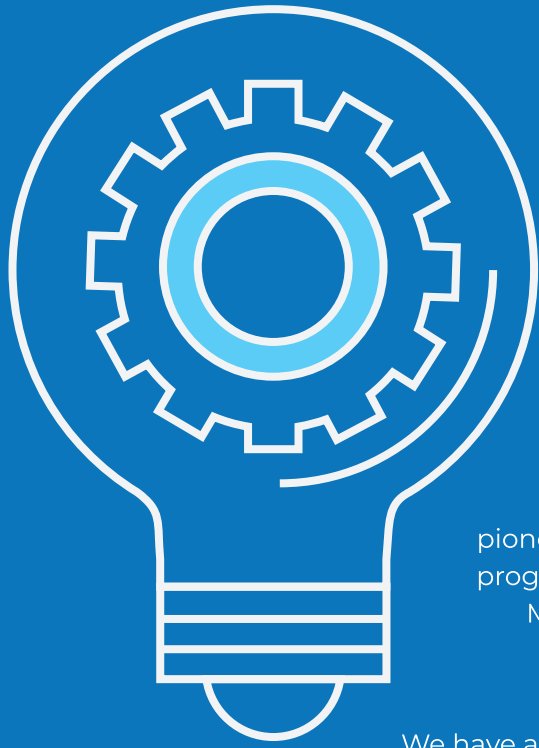
NSHM Knowledge Campus, Durgapur
Established by NSHM Academy
Arrah, Shibtala via Muchipara, Durgapur 713 212

 Durgapur **0343 2533813/14**



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NSHM Knowledge Campus

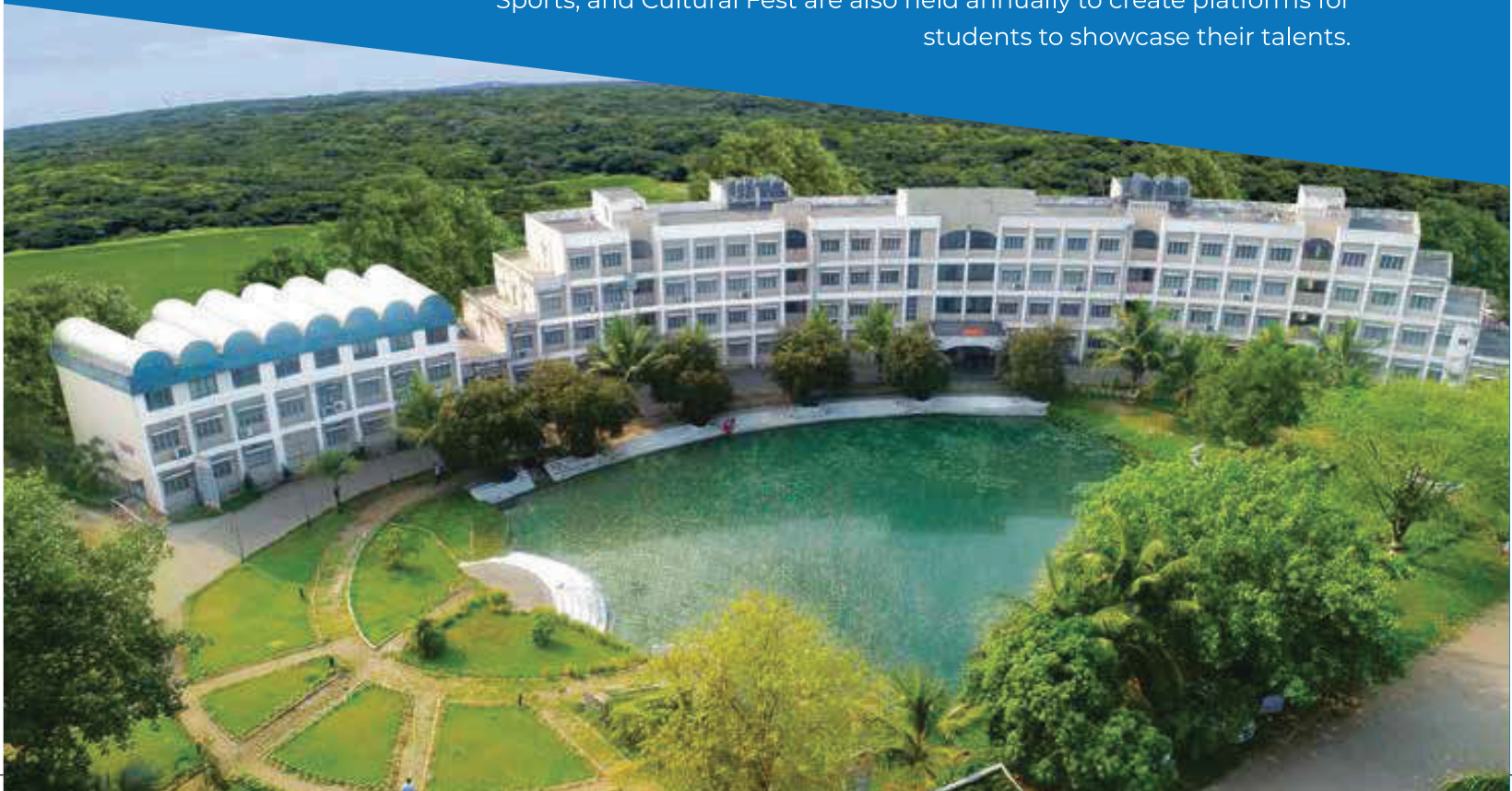
NSHM Knowledge Campus, with a legacy of over 25+ years in providing quality education, with campuses in Kolkata and Durgapur. Being one of Eastern India's pioneering institutions, NSHM offers multidisciplinary UG & PG programmes under Business & Management, Hotel & Tourism Management, Health Sciences, Media, Design, Computing & Analytics, Engineering & Technology, and Nursing.

New Age Programmes

We have always wondered about the future and experimented with offering full-time degree programmes that are futuristic to meet India's evolving needs as well as being globally accepted. New age degree programmes in AI & Machine Learning, Digital Health, Cyber Security, Yoga, Data Science, Fashion Design & Culinary Science have been added over the last 5 years to provide interested students an opportunity to learn and explore exciting career options in these emerging fields.

Youth Connect Initiatives

Every year we have driven initiatives to host eminent personalities from diverse fields to interact, empower and share their experiences with our students. Inspire the Champion in You, NSHM's flagship annual event, where diverse speakers ranging from Dr. Shashi Tharoor, Member of Parliament, to legendary footballer Pele have visited our campuses and interacted with our students. Other events like Vectra, Y-Comm, Login, Blitz, NSHM Annual Sports, and Cultural Fest are also held annually to create platforms for students to showcase their talents.





**Our
Legacy**

More than

60+

Degree
Courses

26+

Years of
Excellence
in Education

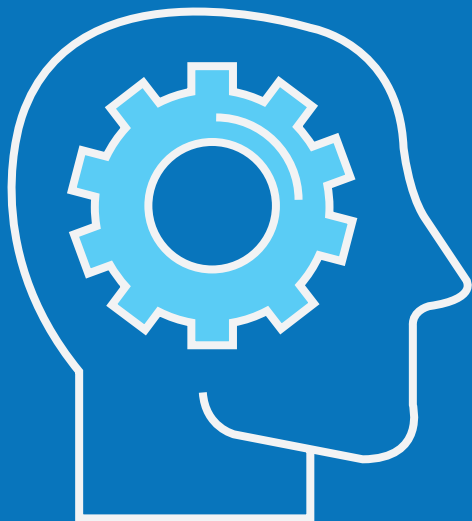
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Schools

Over

30

Thousand Alumni working
in India and abroad



2

Campuses
Kolkata & Durgapur

Affiliations, Accreditations & Awards



Maulana Abul Kalam Azad University of Technology, West Bengal (MAKAUT)

- NSHM's courses are affiliated to & degrees are awarded by MAKAUT



All India Council for Technical Education (AICTE)

- AICTE is responsible for proper planning and coordinated development of the technical education and management education system in India
- NSHM's course contents and curriculum design, teaching methodologies, student intake norms, etc., are approved by AICTE, as applicable



West Bengal University of Health Sciences (WBUHS)

- The nursing courses are affiliated to and degrees are awarded by WBUHS



Pharmacy Council of India (PCI)

- NSHM's UG and PG Pharmacy courses are accredited by the Pharmacy Council of India



West Bengal Nursing Council (WBNC)

- NSHM's GNM Diploma programme is approved by the West Bengal Nursing Council



National Assessment and Accreditation Council (NAAC)

- NSHM Knowledge Campus, Kolkata & Durgapur are accredited by NAAC, as applicable



National Board of Accreditation (NBA)

- NSHM's UG Pharmacy programmes are accredited by NBA



Programmes Offered

NSHM Institute of Engineering & Technology

B.Tech. - Computer Science and Engineering
B.Tech. - Computer Science and Engineering (Data Science)
B.Tech. - Computer Science and Engineering (Artificial Intelligence & Machine Learning)
B.Tech. - Civil Engineering
B.Tech. - Electrical Engineering
B.Tech. - Mechanical Engineering
B.Tech. - Electronics and Communications Engineering

NSHM Business School

Bachelor of Business Administration
BBA - Hospital Management
BBA - Global Business
BBA - Sports Management
BBA - Banking & Finance
BBA - Supply Chain Management
BBA - Accountancy, Taxation & Auditing
MBA+ Harvard Business School Online
Master of Business Administration (MBA)
Master of Hospital Administration

NSHM Institute of Computing & Analytics

B.Sc. - Data Science
B.Sc. - Cyber Security
Bachelor of Computer Applications (BCA)
Master of Computer Application** (MCA)
M.Sc. - Data Science & Analytics*
M.Sc. - Information & Cyber Security*

NSHM Institute of Hotel & Tourism Management

B.Sc. - Culinary Science
B.Sc. - Hospitality & Hotel Administration
B.Sc. - Hospitality & Hotel Administration (Europe Internship)
BBA - Travel & Tourism Management
Bachelor of Hotel Management & Catering Technology
M.Sc. - Hospitality Management*
Master of Tourism & Travel Management*

NSHM Institute of Health Sciences

Bachelor of Pharmacy
Bachelor of Optometry
B.Sc. - Psychology
B.Sc. - Medical Lab Technology
B.Sc. - Medical Instrumentation & Critical Care Technology
B.Sc. - Medical Imaging Technology
B.Sc. - Yoga
B.Sc. - Digital Health & Telemedicine
B.Sc. - Dietetics & Nutrition
Master of Optometry*
Master of Pharmacy - Pharmacology
Master of Pharmacy - Pharmaceutics
Master of Public Health
M.Sc. - Clinical Psychology
M.Sc. - Dietetics & Nutrition
M.Sc. - Yoga*
M.Sc. - Medical Lab Technology
M.Sc. - Medical Imaging Technology
M.Sc. - Environmental Science

NSHM Design School

B.Sc. - Fashion Design & Management
B.Sc. - Interior Designing
B.Sc. - Multimedia, Animation & Graphics
B.Sc. - VFX Film Making
M.Sc. - Fashion Management
M.Sc. - Animation & Graphic Design

NSHM Media School

B.Sc. - Film & Television
B.Sc. - Media Science
M.Sc. - Film & Television
M.Sc. - Media Science

NSHM Institute of Nursing

B.Sc. - Nursing**
Diploma in General Nursing and Midwifery (GNM)

*Hybrid Learning (Online + Offline) Blended Classes Option offered at Kolkata Campus

**Approval awaited

CBEL **Choice Based Extended Learning**

CBEL is Choice Based Extended Learning (CBEL) which is an exciting design to bring NSHM learners across all programmes and levels (UG-to-PG) in a cohort of a CBEL programme, as per their choice. NSHM is one of the top education centres in India that offers 50+ CBEL programmes of 20-40 hours duration under 9 baskets.

The baskets are replete with curated multidisciplinary programmes of useful and productive learning beyond the programmes of study of a learner. Moreover, CBEL will be all about active learning and is intended to extend the joy of learning through engaging activities. The maximum a learner can choose per semester is 4 programmes and the minimum is 1 programme.



Business Management

Courses: Brand Management | Sustainable and Ethical Studies | Integrated Marketing Communication | Luxury Brand Management Market ability of Indian Craftsmanship | Social Entrepreneurship | Managing Work Force Diversity | Logistics and International Supply Chain Management | Lateral Thinking using De Bono's Six Thinking Hats | Essentials of Entrepreneurship | Business Plan Formulation & Pitching

Communication & Creative Studies

Courses: Cinematography | Set Design | History of Art | Aesthetics | Sculpting | Event Management | Press & Public Relations | Product Photography | Design Thinking | Designing a Powerful Presentation | Effective Communication through Theatre | Music, Arts, and Acting Appreciation | Monetising Social Media

Health & Wellness Management

Courses: Economic Evaluation of Various Diseases | Legal Issues in Health Care | Health Insurance Management | Ophthalmic Product Development | Self-practitioner Optometrist | Metrics for Public Health | Clinical Data Management | Health Data Analytics | Pharmacokinetics with Calculations | Pharmaceutical Product Development | Mental Wellness | Yoga for Resilient and Resonant Personality Development | Yoga for Health Management | Wellness through Sports and Fitness Management

IT & Analytics

Courses: Research and Data Analysis | Working with Data | Field-survey | Project-based Qualitative Analysis of Data | Data Privacy in the Digital Business | Data Analytics with Excel | Industry 4.0

Language & Linguistic Studies

Courses: French | German | Sanskrit for Beginners | Phonetics, Linguistics, and Literature Appreciation

Professionalism & Skill Enhancement

Courses: Image Development | Professional Attitude for Customer Service | Scientific Writing Designing Impactful Presence | Emotional Intelligence

Socio-cultural Studies

Courses: Universal Human Values | Indian Knowledge System: Introduction to Manuscriptology and Palaeography

Entrepreneurship

Courses: Organic Product Making - Farm and Non-farm

Hospitality Management

Courses: International Travel Formalities | Tourism Destination Management | Customer Relationship Management in Tourism

Experiential Learning

The Centres of Excellence at NSHM Knowledge Campus are committed to the holistic development of its students by grooming talented professionals through unique programmes and initiatives.

NSHM Centre of Creative & Performing Arts

aangan

CENTRE FOR CREATIVE & PERFORMING ARTS

Aangan is a creative platform where NSHMites learn and showcase their creativity. Aangan features both traditional and contemporary training programmes. A fresh basket of training programmes is offered in every semester by the trainers from various creative disciplines.

Aangan works closely with the student community and clubs of NSHM.



TAG

THINK . ACT . GROW
— Innovation & Incubation —

CENTRE FOR INNOVATION & INCUBATION

Determined to provide team-designed, team-delivered, experience-based and community-based applied learning, NSHM has endeavoured to create this unique platform and has christened it as TAG. This centre inspires, motivates and cultivates the innate human curiosity to bring out the genius in our students, taking them ahead on the path of creation, innovation and entrepreneurship.



CENTRE FOR SPORTS & WELLNESS

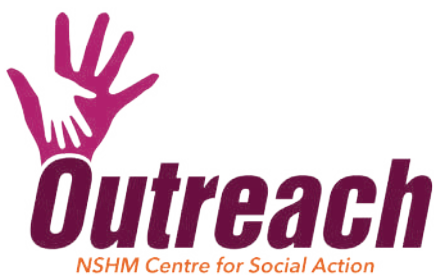
UDAY aims at contributing to the personal, physical & psychological growth and well-being of students, creating a sporting environment in NSHM. With its state-of-the-art fitness training & gym facilities, UDAY organises regular fitness training programmes and also organises various sports activities and events round the year. The centre is also committed to nurturing young sporting talents through regular training camps and practice.



NSHM Centre for Language & Communication

CENTRE FOR LANGUAGE AND COMMUNICATION

NSHM CLC ensures the development of people skills among its students so that they are able to connect with the industry and its people, thereby emerging as successful professionals. Apart from conducting regular English and business communication classes, the centre conducts regular evening classes on the English language, foreign languages & employability skills.



CENTRE FOR SOCIAL ACTION

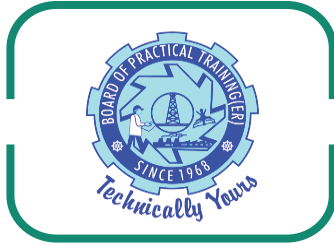
Outreach is involved in contributing to social causes by mobilising student volunteers to participate in various outreach activities, often in collaboration with charitable organisations and NGOs. It is a platform through which students and individuals can connect with the society and its people.



Academic Partners



Training/Internship Partners



NSHM Institute of Engineering & Technology

The Indian engineering sector has witnessed a remarkable growth over the last few years, driven by increased investments in infrastructure and industrial production. The engineering sector, being closely associated with the manufacturing and infrastructure sectors, is of strategic importance to India's economy. India, on its quest to become a global superpower, has made significant strides towards the development of its engineering sector, creating a magnitude of lucrative job opportunities.

NSHM Knowledge Campus aims to impart sound technical knowledge imbued with human values. With state-of-the-art infrastructure, industry integrated curriculum, and experienced faculty members, we aspire to make our students creative and globally competent professionals.





Eminent and well-experienced faculty

Central Library:

A well-stocked library housing books, journals, periodicals etc., from all over the world

Wi-Fi Enabled Campus:

High-speed Wi-Fi connection powering the entire campus

e-Learning:

Interactive, dynamic, and intuitive way of improving the learning process through digital resources with Collpoll

Research & Development Cell:

For conducting research investigations within its academic programmes, under all the departments

Industry-Institute Partnership Cell:

For developing close relationship between the industry and various departments of the institute set-up to improve the students' proficiency in a variety of languages

Training & Placement Cell:

For providing internship and placement opportunities for students in Engineering and allied Industries

Student Care Facilities:

Medical unit, cafeteria, reprographics, banking facility (ATM), parking lot, uninterrupted power supply, separate hostels for boys and girls, 24-hour power back-up, sports complex for outdoor and indoor games, amphitheatre, multi-specialty gymnasium, yoga & meditation centre

Students' Club: Tech Knights (Science & Technology), N-MEC, Elektronika, Rythms-n-Act, Robotics, Photography, Quiz & Debating, Fine Arts, Music & Dance

Intellectual Property Rights: Encourages and supports innovative ideas from faculty and students which may be converted to intellectual property

Seminar & Workshop Cell: For conducting innovative seminars and workshops featuring industry experts and doyens

Soft Skill & Personality Development programme: Special programme to groom the students and make them better communicators

Entrepreneurship Development programme: Special programme to transform the students into entrepreneurs and business leaders

Departmental Laboratories: State-of-the-art labs that provide the students with the opportunity to engage in hands-on learning

Language Laboratory (in collaboration with IIT-KGP): Ultra-modern set-up to improve the students' proficiency in a variety of languages

FOSS by IIT Mumbai, Academic MOU with CDAC, Nokia Here



Laboratories

NIET is home to state-of-the-art laboratories for all Departments that provide a comprehensive learning environment for all students.



Computer Science and Engineering

Basic Computing & Internet Technology lab

Visual Basic & Computer Architecture lab

DBMS & Object Oriented Programming lab

Internet lab

AI lab

Project & Software Engineering lab

Operating System & Networking lab



Computer Science and Engineering – Data Science | AI & ML

Data Analytics lab

AWS lab

Advance R programming lab

Computing lab

AI Lab

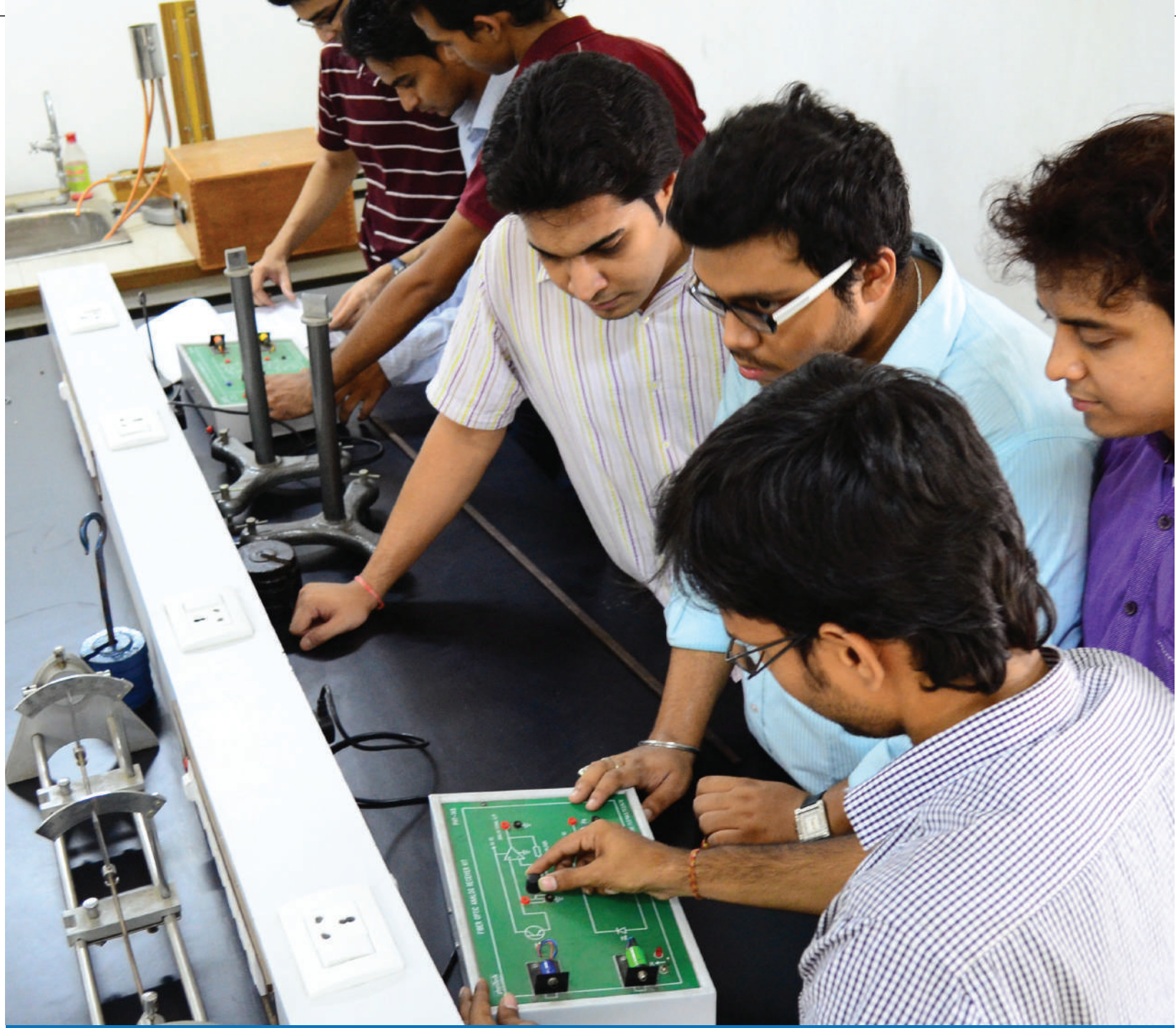
Machine Learning lab

Data Mining lab

Big Data Analytics lab

Mongo DB lab

Advance Python lab



Electrical Engineering

Basic Electrical lab

Measurement lab

Circuit Theory lab

Electrical Machines lab

Power Systems lab

Control Systems lab

Power Electronics lab

Electrical Design lab



Electronics and Communications Engineering

- [Basic Electronics lab](#)
- [Analog Electronics lab](#)
- [Solid State Device lab](#)
- [Signal and Systems lab](#)
- [Digital Electronics lab](#)
- [EM Theory & Antenna lab](#)
- [Analog Communication lab](#)
- [Microprocessor & Microcontroller lab](#)
- [Control Systems lab](#)
- [Digital Communication lab](#)
- [Digital Signal Processing](#)
- [VLSI Design lab and Design lab](#)



Mechanical Engineering

Mechanical Workshop including automobile lab

Manufacturing Technology laboratories including foundry and forging

Engineering Drawing and AutoCAD lab

Strength of Materials and Applied Mechanics lab

Fluid Mechanics and Hydraulic labs

Material Testing lab

Metrology and Measurement lab

Internal Combustion Engine lab

Dynamics of Machinery labs

Advance Manufacturing lab including CNC lathe, electric discharge machining and 6 axis robots

Welding lab



Civil Engineering

Soil Mechanics laboratory for performing Vane Shear Test, Standard and Modified Proctor Test, Consolidation Test, Sieve Analysis, etc.

Strength of Material lab having instruments to perform compressive strength test, Brinell hardness test, dynamic impact test, torsion test etc.

Concrete lab to perform flexural strength, measurement of workability of concrete, setting, time of cement, mix design of concrete etc.

Transportation lab to perform impact, abrasion value test, flakiness and elongation test of aggregates; penetration, softening pt., flash and fire pt. of bitumen, Marshall mix design, CBR value test of subgrade material etc.

Survey lab to perform chain surveying, compass surveying, plane table surveying, levelling, theodolite traversing, total station surveying etc.

AutoCAD lab having analytical and design based software (STAAD.Pro)



Civil Engineering

First Semester

Academic Curriculum	NSHM Value Added Curriculum
Physics - I Mathematics – IB Basic Electrical Engineering Physics - I laboratory Basic Electrical Engineering laboratory Workshop/Manufacturing Practices	Communication Skills Bootcamp – I Effective Thinking Beauty of Mathematics Public Speaking Bootcamp

Second Semester

Academic Curriculum	NSHM Value Added Curriculum
Chemistry - I Mathematics – IIB Programming for Problem Solving English Chemistry - I laboratory Programming for Problem Solving Engineering Graphics & Design	Language Laboratory Communication Skills Bootcamp – II Power of Chemistry C Programming Bootcamp - I

Third Semester

Academic Curriculum	NSHM Value Added Curriculum
Biology for Engineers Engineering Mechanics Energy Science & Engineering Mathematics - III Humanities - I Introduction to Civil Engineering Basic Electronics Computer-aided Civil Engineering Drawing Life Science	Environment Impact Assessment by MOOCS Industrial Visit

Fourth Semester

Academic Curriculum	NSHM Value Added Curriculum
Introduction to Fluid Mechanics Introduction to Solid Mechanics Soil Mechanics – I Environmental Engineering – I Concrete Technology Surveying & Geomatics Civil Engineering - Societal & Global Impact Management – I (Organisational Behavior) Fluid Mechanics laboratory Solid Mechanics laboratory Engineering Geology laboratory Surveying & Geomatics laboratory Concrete Technology laboratory	MOOCS Survey Projects Industrial Visits Advanced Testing Courses

Fifth Semester

Academic Curriculum

Design of RC Structures
Engineering Hydrology
Structural Analysis – I
Mechanics – II
Environmental Engineering – II
Transportation Engineering
Constitution of India/ Essence of Indian Knowledge Tradition
RC Design Sessional
Soil Mechanics laboratory
Environmental Engineering laboratory
Transportation Engineering laboratory
Computer Application in CE

NSHM Value Added Curriculum

Industrial Internship - I (2 Weeks)
Water Supply Engineering by MOOCS

Sixth Semester

Academic Curriculum

Construction Engineering & Management
Engineering Economics, Estimation & Costing
Water Resources Engineering
Design of Steel Structures
Ground Improvement Technique
Structural Analysis-II
Soft Skills and Interpersonal Communication – I
Water Resource Engineering laboratory
Steel Structure Design Sessional
Quantity Survey Estimation and Valuation Sessional

NSHM Value Added Curriculum

Design of Residential Building
Certification Course on Advanced Software like AutoCAD 3D, Advance level STAAD Pro, Revit etc.

Seventh Semester

Academic Curriculum

Metro Systems & Engineering
Hydraulic Structure
Pre-stressed Concrete
Advanced Structural Analysis
Air and Noise Pollution and Control
Railway and Airport Engineering
Industrial Internship
Project-I

NSHM Value Added Curriculum

Design of Industrial Building
Scheduling Techniques in Projects by MOOCS

Eighth Semester

Academic Curriculum

Professional Practice, Law & Ethics
Environmental laws and Policy
Deep Foundations
Urban Transport Planning
Comprehensive Viva Voce
Project-II

NSHM Value Added Curriculum

Advanced Foundation Engineering by MOOCS



Computer Science and Engineering

First Semester

Academic Curriculum

Physics - I
 Mathematics - IA
 Basic Electrical
 Basic Electrical Engineering laboratory
 Physics - I laboratory
 Workshop/Manufacturing Practices

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
 Effective Thinking
 Beauty of Mathematics
 Public Speaking Bootcamp

Second Semester

Academic Curriculum

Chemistry-I
 Mathematics-IIA
 Programming for Problem Solving
 English
 Chemistry-I laboratory
 Programming for Problem Solving laboratory
 Engineering Graphics and Design laboratory
 Language laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – II
 Power of Chemistry
 C/C++ Programming Bootcamp - I
 AICTE-EduSkills Virtual Internship-Process Mining

Third Semester

Academic Curriculum

Analog and Digital Electronics
 Data Structure & Algorithms
 Computer Organisation
 Mathematics-III (Differential Calculus)
 Economics for Engineers (Humanities-II)
 IT Workshop (Sci Lab/MATLAB/Python/R)
 Analog and digital Electronics laboratory
 Data Structure & Algorithms laboratory
 Computer Organization laboratory

NSHM Value Added Curriculum

Practice Coding with C#
 Hands-on experience with UNIX Scripting
 AICTE-EduSkills Virtual Internship-RedHat

Fourth Semester

Academic Curriculum

Discrete Mathematics
 Computer Architecture
 Formal Language & Automata Theory
 Design & Analysis of Algorithm
 Biology
 Environmental Science
 Computer Architecture laboratory Design & Analysis of Algorithm laboratory

NSHM Value Added Curriculum

An Introduction to R Programming
 Hands-on experience with Basic Web Designing using HTML and CSS
 AICTE-EduSkills Virtual Internship on AWS Cloud

Fifth Semester

Academic Curriculum

Software Engineering
Compiler Design
Operating Systems
Object Oriented Programming
Software Engineering laboratory
Operating Systems laboratory
Object Oriented Programming laboratory

NSHM Value Added Curriculum

Practice on Professional Web Designing using Advanced HTML, CSS and Bootstrap
Hands-on experience with Web Development using JQuery and Javascript
AICTE-EduSkills Virtual Internship on AWS-AIML

Sixth Semester

Academic Curriculum

Software Engineering
Compiler Design
Operating Systems
Object Oriented Programming
Software Engineering laboratory
Operating Systems laboratory
Object Oriented Programming laboratory

NSHM Value Added Curriculum

Learn Web development using PHP
Hands-on experience with Android Application Development using KOTLIN
AICTE-EduSkills Virtual Internship on RPA

Seventh Semester

Academic Curriculum

Machine Learning
Soft Computing
Operations Research
Project Management and Entrepreneurship
Project-II

NSHM Value Added Curriculum

Automate with Arduino Programming and Nodejs
Programming the IOT using Raspberry and MongoDB
AICTE-EduSkills Virtual Internship on MicroChip/Altyrex Automation

Eighth Semester

Academic Curriculum

Cryptography & Network Security
Mobile Computing
E-Commerce and ERP
Project-III

NSHM Value Added Curriculum

Hands-on experience with Data Analytics
AICTE-EduSkills Virtual Internship on AWS
Data Analytics/Cyber Security/Juniper /Blue Prism





Computer Science and Engineering – AI & ML

First Semester

Academic Curriculum

Physics – I
 Mathematics - IA
 Basic Electrical Engineering
 Physics-I laboratory
 Basic Electrical Engineering laboratory
 Workshop/Manufacturing Practices

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
 Effective Thinking
 Beauty of Mathematics
 Public Speaking Bootcamp

Second Semester

Academic Curriculum

Chemistry - I
 Mathematics - II
 Programming for Problem Solving
 English
 Chemistry - I laboratory
 Programming for Problem Solving
 Engineering Graphics and Design
 Language laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – II
 Power of Chemistry
 C/C++ Programming Bootcamp - I
 AICTE-EduSkills Virtual Internship-Process Mining

Third Semester

Academic Curriculum

Analog and Digital Electronics
 Data Structure & Algorithms
 Computer Organisation
 Linear Algebra
 Economics for Engineers (Humanities-II)
 Data Structure & Algorithms lab
 Analog and Digital Electronics lab
 Computer Organisation lab
 IT Workshop (Python I)

NSHM Value Added Curriculum

Practice Coding with C#
 Hands-on experience with UNIX Scripting
 AICTE-EduSkills Virtual Internship-RedHat

Fourth Semester

Academic Curriculum

Discrete Mathematics
 Artificial Intelligence
 Optimisation Techniques
 Design & Analysis of Algorithm
 Biology
 Environmental Science
 Artificial Intelligence lab
 Design & Analysis of Algorithm lab
 R Programming Language lab

NSHM Value Added Curriculum

An Introduction to R Programming
 Hands-on experience with Basic Web Designing using HTML and CSS
 AICTE-EduSkills Virtual Internship on AWS Cloud

Fifth Semester

Academic Curriculum

Probability and Statistics
Operating System
Object Oriented Programming
Introduction to Machine Learning
Introduction to Industrial Management
Cloud Computing
Operating System laboratory
Object Oriented Programming & Java laboratory
Machine Learning laboratory

NSHM Value Added Curriculum

Practice on Professional Web Designing using Advanced HTML, CSS and Bootstrap
Hands-on experience with Web Development using JQuery and Javascript
AICTE-EduSkills Virtual Internship on AWS-AIML

Sixth Semester

Academic Curriculum

Machine Learning Applications
Deep Learning
Soft Computing
Computer Networks
Big Data Analytics
Cryptography and Network Security
Machine Learning Applications laboratory
Soft Computing laboratory
Computer Networks laboratory

NSHM Value Added Curriculum

Learn Web Development using PHP
Hands-on experience with Android Application Development using KOTLIN
AICTE-EduSkills Virtual Internship on RPA

Seventh Semester

Academic Curriculum

Social Network Analysis
Information Theory and Coding
Internet of Things
Project Management and Entrepreneurship
Project - I

NSHM Value Added Curriculum

Automate with Arduino Programming and Nodejs
Programming the IOT using Raspberry and MongoDB
AICTE-EduSkills Virtual Internship on MicroChip/Altyrex Automation

Eighth Semester

Academic Curriculum

Natural Language Processing
Software Engineering
Research Methodology
Project - II

NSHM Value Added Curriculum

Hands-on experience with Data Analytics
AICTE-EduSkills Virtual Internship on AWS Data Analytics/Cyber Security/Juniper/Blue Prism



Computer Science and Engineering – Data Science

First Semester

Academic Curriculum

Physics – I
 Mathematics - IA
 Basic Electrical Engineering
 Physics - I laboratory
 Basic Electrical Engineering laboratory
 Workshop/Manufacturing Practices

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
 Effective Thinking
 Beauty of Mathematics
 Public Speaking Bootcamp

Second Semester

Academic Curriculum

Chemistry - I
 Mathematics - II
 Programming for Problem Solving
 English
 Chemistry - I laboratory
 Programming for Problem Solving
 Engineering Graphics and Design
 Language laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp –II
 Power of Chemistry
 C/C++ Programming Bootcamp-I
 AICTE-EduSkills Virtual Internship-Process Mining

Third Semester

Academic Curriculum

Analog and Digital Electronics
 Data Structure & Algorithms
 Computer Organisation
 Introduction to Data Science
 Mathematics-III (Differential Calculus)
 Economics for Engineers (Humanities-II)
 Data Structure & Algorithms laboratory
 Analog and Digital Electronics laboratory
 Computer Organization laboratory
 Data Science lab using Python

NSHM Value Added Curriculum

Practice Coding with C#
 Hands on experience with UNIX Scripting
 AICTE-EduSkills Virtual Internship-RedHat

Fourth Semester

Academic Curriculum

Discrete Mathematics
 Database Management System
 Formal Language & Automata Theory
 Design & Analysis of Algorithm
 Data Mining
 Biology
 Environmental Science
 Database Management System laboratory
 Design & Analysis of Algorithm laboratory
 Data Mining laboratory

NSHM Value Added Curriculum

An Introduction to R Programming
 Hands-on experience with Basic Web Designing using HTML and CSS
 AICTE-EduSkills Virtual Internship on AWS Cloud

Fifth Semester

Academic Curriculum

Software Engineering
Statistics for Data Science
Operating Systems
Object Oriented Programming
Introduction to Industrial Management
Mobile Computing and Applications
Constitution of India
Software Engineering laboratory
Operating Systems laboratory
Object Oriented Programming laboratory

NSHM Value Added Curriculum

Practice on Professional Web Designing using Advanced HTML, CSS and Bootstrap
Hands-on experience with Web Development using JQuery and Javascript
AICTE-EduSkills Virtual Internship on AWS-AIML

Sixth Semester

Academic Curriculum

Artificial Intelligence
Data Communication and Computer Networks
Big Data Technology
Machine Learning
Data Warehousing and Data Mining
Social Computing
Research Methodology
Artificial Intelligence laboratory
Data Communication and Computer Networks lab
Big Data Technology and OLAP lab

NSHM Value Added Curriculum

Learn Web Development using PHP
Hands-on experience with Android Application Development using KOTLIN
AICTE-EduSkills Virtual Internship on RPA

Seventh Semester

Academic Curriculum

Cloud Computing
Networks and Deep Learning
Surveillance and Cyber Security
Multimedia Technology
Project Management and Entrepreneurship
Project - II

NSHM Value Added Curriculum

Automate with Arduino Programming and Nodejs
Programming the IOT using Raspberry and MongoDB
AICTE-EduSkills Virtual Internship on MicroChip/Altyrex Automation

Eighth Semester

Academic Curriculum

Natural Language Processing Computer Vision
Big Data Analysis
Data Science Ethics
Project - III

NSHM Value Added Curriculum

Hands-on experience with Data Analytics
AICTE-EduSkills Virtual Internship on AWS Data Analytics/Cyber Security/Juniper /Blue Prism

Electronics and Communications Engineering

First Semester

Academic Curriculum

Chemistry
 Mathematics-IB
 Basic Electrical Engineering
 Chemistry laboratory
 Basic Electrical Engineering laboratory
 Engineering Graphics & Design laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
 Beauty of Mathematics
 Public Speaking Bootcamp
 Power of Chemistry

Second Semester

Academic Curriculum

Physics-I
 Mathematics-IIB
 English
 Programming for Problem Solving
 Workshop/Manufacturing Practices
 Physics-I laboratory
 Language laboratory
 Programming for Problem Solving Laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – II
 C Programming Bootcamp - I
 Effective Thinking
 AICTE-EduSkills Virtual Internship-Process Mining

Third Semester

Academic Curriculum

Electronic Devices
 Digital System Design
 Signals and Systems
 Network Theory
 Data Structure and Algorithm(ES)
 Mathematics-III
 Environmental Science
 Electronic Devices laboratory
 Digital System Design laboratory
 Data Structure laboratory (ES)
 Environmental Science

NSHM Value Added Curriculum

Fundamental of Electronics
 Swayam course on Digital System Design by IIT Ropar
 Swayam course on Principles of Signals and Systems by IIT Kanpur
 Virtual Laboratories
 Hands-on Exhibition
 AICTE-EduSkills Virtual Internship-RedHat

Fourth Semester

Academic Curriculum

Analog Communication
 Analog Electronic Circuits
 Microprocessor and Microcontroller
 Design and Analysis of Algorithm (ES)
 Numerical Methods (BS)
 Biology for Engineers
 Analog Communication laboratory
 Analog Electronic Circuits laboratory
 Microprocessor and Microcontroller laboratory
 Numerical Methods laboratory
 Soft Skill Development laboratory

NSHM Value Added Curriculum

Swayam course on Analog Electronic Circuits by IIT Kharagpur
 Swayam course on Design and Analysis of Algorithms by Chennai Mathematical Institute
 Swayam course on Arduino by IIT Bombay
 Virtual Laboratories
 AICTE-EduSkills Virtual Internship on AWS Cloud

Fifth Semester

Academic Curriculum	NSHM Value Added Curriculum
Electromagnetic Waves Computer Architecture Digital Communication & Stochastic Process Digital Signal Processing Nano Electronics Soft Skill and Interpersonal Communication Electromagnetic Wave laboratory Digital Communication laboratory Digital Signal Processing laboratory Effective Technical Communication	NPTEL-transmission Lines and Electromagnetic Waves by IIT C Webinar NPTEL-Principles of Digital Communications by IIT G Advanced Soft Skill Development Virtual Laboratories Industrial Visit Advanced Technical Communication Placement Preparation-Quantitative Aptitude

Sixth Semester

Academic Curriculum	NSHM Value Added Curriculum
Control System & Instrumentation Computer Network Information Theory and Coding Object Oriented Programming Economics for Engineers Computer Network laboratory Control System and Instrumentation laboratory Mini Project Universal Human Values	NPTEL-Control Engineering by IIT M NPTEL-Computer Networks and Internet Protocol by IIT KGP Industrial Visit Webinar Hands-on Project Placement Preparation-AMCAT/e-LITMUS Exams

Seventh Semester

Academic Curriculum	NSHM Value Added Curriculum
Principles of Management Satellite Communication Digital Image and Video Processing Embedded System Entrepreneurship Industrial Training Project Stage - I	Webinar NPTEL course on Digital Image Processing by IIT KGP Coursera Course on Introduction to Embedded Systems Software and Development Environments by University of Colorado Boulder Placement Preparation-TCS NQT/Wipro/InfyTQ

Eighth Semester

Academic Curriculum	NSHM Value Added Curriculum
Antennas and Propagation Mixed Signal Design Internet of Things(IoT) Organisational Behaviour Project Stage – II Grand Viva	Webinar NPTEL course on Antennas by IIT B NPTEL course on Introduction to Internet of Things by IIT KGP AICTE-EduSkills Virtual Internship on MicroChip/Altyrex Automation



Electrical Engineering

First Semester

Academic Curriculum

Chemistry
 Mathematics - IB
 Basic Electrical Engineering
 Chemistry laboratory
 Basic Electrical Engineering laboratory
 Engineering Graphics & Design laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
 Beauty of Mathematics
 Public Speaking Bootcamp
 Power of Chemistry

Second Semester

Academic Curriculum

Physics - I
 Mathematics - IIB
 English
 Programming for Problem Solving
 Workshop/Manufacturing Practices
 Physics - I laboratory
 Language laboratory
 Programming for Problem Solving laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – II
 C Programming Bootcamp - I
 Effective Thinking

Third Semester

Academic Curriculum

Electric Circuit Theory
 Analog Electronics Theory
 Electromagnetic Field Theory
 Engineering Mechanics
 Mathematics - III
 Biology for Engineers
 Indian Constitution
 Electric Circuit Theory lab
 Analog Electronic lab
 Numerical Methods laboratory

NSHM Value Added Curriculum

Domestic and Commercial Wiring System
 Matlab and Simulink Bootcamp

Fourth Semester

Academic Curriculum

Electric Machine - I
 Digital Electronic
 Electrical and Electronics Measurement
 Thermal Power Engineering
 Values and Ethics in Profession
 Environmental Science
 Electric Machine - I laboratory
 Electrical and Electronics Measurement laboratory
 Digital Electronic laboratory
 Thermal Power Engineering laboratory

NSHM Value Added Curriculum

Introduction to P-Spice and Circuit Development
 Python Bootcamp

Fifth Semester

Academic Curriculum	NSHM Value Added Curriculum
Electric Machine-II Power System-I Theory Control System Theory Power Electronics Theory Renewable & Non-Conventional Energy Data Structure & Algorithm Electrical Machines laboratory Power System-I laboratory Control System laboratory Power Electronics laboratory	IOT and its Application Using Arduino Smart-Homes and Industrial Safety

Sixth Semester

Academic Curriculum	NSHM Value Added Curriculum
Power System-II Microprocessor & Micro controller HVDC transmission Power quality & FACTS Digital Signal Processing Economics for Engineers Power System-II laboratory Microprocessor & Micro-controller laboratory	Implementation of Renewable Energy in Electrical Appliances (MOOCS courses) E-Vehicles, EMS and Battery Charging System

Seventh Semester

Academic Curriculum	NSHM Value Added Curriculum
Electric Drive Electrical Energy Conservation & Auditing Artificial Intelligence Embedded System Principle of Management Electric Drive laboratory Project Stage – I Electric Drive laboratory	Technical Brush up session Coding Solution Industrial Visit

Eighth Semester

Academic Curriculum	NSHM Value Added Curriculum
Utilization of Electric Power Power System Dynamics and Control Sensors and Transducers Project Stage - I Grand Viva	Mock interview Session Case Study Group Project – II Industry Visit Effective Communication Skills Boot camp – II



Mechanical Engineering

First Semester

Academic Curriculum

Physics - I
Mathematics - IB
Basic Electrical Engineering
Physics - I laboratory
Basic Electrical Engineering laboratory
Workshop/Manufacturing Practices

NSHM Value Added Curriculum

Communication Skills Bootcamp – I
Effective Thinking
Beauty of Mathematics
Public Speaking Bootcamp

Second Semester

Academic Curriculum

Chemistry
Mathematics - IIB
English
Programming for Problem Solving
Engineering Graphics & Design
Chemistry laboratory
Language laboratory
Programming for Problem Solving laboratory

NSHM Value Added Curriculum

Communication Skills Bootcamp – II
Power of Chemistry
C Programming Bootcamp - I

Third Semester

Academic Curriculum

Mathematics - III
Biology
Basic Electronics Engineering
Engineering Mechanics
Thermodynamics
Manufacturing Processes
Practice of Manufacturing Processes

NSHM Value Added Curriculum

Communication Skills Bootcamp – III
Advanced Tool Operations - I
C++ Programming Bootcamp - I

Fourth Semester

Academic Curriculum

Materials Engineering
Applied Thermodynamics
Fluid Mechanics & Fluid Machines
Metrology & Instrumentation
Environmental Science
Practice of Manufacturing Processes laboratory
Machine Drawing - I

NSHM Value Added Curriculum

Virtual Interviews Bootcamp – III
Grooming Sessions - I
Python Programming Bootcamp - I
Webinars

Fifth Semester

Academic Curriculum	NSHM Value Added Curriculum
Heat Transfer Solid Mechanics Kinematics & Theory of Machines Humanities - I (Effective Technical Communication) Essence of Indian Knowledge Tradition Mechanical Engineering laboratory - I (Thermal) Machine Drawing - II Project - I	Hands-on Project - I Industry Connect Industrial Visits Quantitative Aptitude

Sixth Semester

Academic Curriculum	NSHM Value Added Curriculum
Manufacturing Technology Design of Machine Elements Internal Combustion Engines and Gas Turbines Refrigeration and Air Conditioning Humanities - II (Operations Research) Mechanical Engineering Laboratory Design - II Project - II	Hands-on Project - II Industrial Visits Webinar Foundation Course on AutoCAD Placement Preparation-AMCAT/e-LITMUS Exams

Seventh Semester

Academic Curriculum	NSHM Value Added Curriculum
Automobile Engineering Advanced Manufacturing Technology Non-Conventional Energy Sources Advanced Welding Technology Economics for Engineers Mechanical Engineering laboratory - III (Manufacturing) Project - III	Industrial Visit in Automobile Company Certification on CNC programming on CNC lathe Webinar NPTEL Course on Welding Science & Technology, IIT Guwahati Placement Preparation-TCS NQT/Wipro/InfyTQ Virtual Internship-AICTE-EduSkills

Eighth Semester

Academic Curriculum	NSHM Value Added Curriculum
Power Plant Engineering 3D Printing and Design Industrial Pollution and Control Waste to Energy - an Overview Project - IV Comprehensive Viva	Industrial Visit Hands-on Training Workshop by CMERI/NITD Placement Preparation - Quantitative Aptitude MOOCS by IIT Guwahati Webinar



Distinguished Roles & Positions Offered

Software Engineer

Research Associate

TRON Associate

Business Dev. Analyst

Software Developer

Asst. Systems Engineer

Application Dev. Associate

Graduate Engineer Trainee

Product Quality Engineer

Automation Engineer

Jr. Systems Engineer

PHP Developer

Programmer Analyst

Management Trainee

Business
Development Executive

Maintenance Engineer

Design Engineer

Placements & Internships

Placements and internships are our forte. Our placement cells create internship and placement opportunities in major brands, ensuring a great start to a student's career.



Success Stories



Hrishikesh Ghosh
Manav Energy Pvt. Ltd.



Nikhita
QSpider



Neha Kumari Prasad
Maventic Innovative
Solutions Pvt. Ltd.



Nilanjan Tiary
Pinnacle Infotech



Paromita Karmakar
TCS



Premashree Verma
Spider Tech Lab



Soumita Panja
Hexaware Technologies



Suman Chatterjee
TCS Digital

Success Stories



Altamas Rehan
SEC & ARAMCO



Anubhab Sen
TCS



Arunima Deb
Google Inc



Harshvardhan Karn
Deepfence Inc



Kasif Raja
Doha J.B.M



Tushar Kumar
Maedian Projects



Prakash Kumar
Dassault



Rahul Kumar
Doha J.B.M

Events & Activities



Student Meet with NSHM Goodwill Ambassador – Mr. Ravi Shastri at NSHM Knowledge Campus, Durgapur



B.Tech Batch Launch Program : ACCEPTUS - 2023



Two Days workshop on “The Application of Optimization Techniques in Engineering & Social Science” by DSTBT, Govt. of West Bengal at NSHM Knowledge Campus, Durgapur



Hands-on Session & Paper Presentation by B. Tech Students at National Conference on theme “Emerging Trends in Using Language and Literature in the Millennial Classroom to Foster Effective Communication”.



International Conference Session at NSHM Knowledge Campus, Durgapur

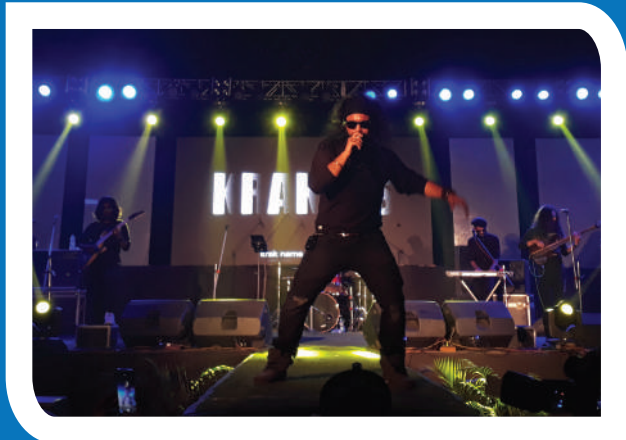


B.Tech Alumni Meet at NSHM Knowledge Campus, Durgapur

Events & Activities



Blitz-2023 NSHM Annual Sports: Prize Distribution Ceremony



Blitz – 2023, NSHM Cultural Fest – Star Night



Blitz-2023 NSHM Annual Sports - Inter College Table Tennis Tournament



Blitz-2023 NSHM Annual Sports - Inter College Carrom Competition



Blitz-2023 NSHM Annual Sports - Inter College Badminton Tournament



B.Tech Induction Program 2023-Yoga Session at NSHM Knowledge Campus, Durgapur