

BTech ECE in Semiconductor Design & Technology with IIT Mandi



Shaping the
Semiconductor
Future!



Table of Contents

Quality Benchmarks	4
About The NorthCap University	5
Message from the Pro - Chancellor	6
Message from the Vice Chancellor	7
From the HOD's Desk	8
Global Market Trends & India's Vision	9
Academic & Industry Partnerships	12
IIT Mandi & NSDC	12
Sahasra Semiconductors Pvt. Ltd.	14
Taiwan Education Centre @NCU	15
About the Programme	16
Programme Modules	16
Infrastructure Overview	17
Industries & Potential Employers	22
Immersion Programme at IIT Mandi	23
Semiconductors Leaders at NCU	28
Alumni Testimonials	29
Opportunities with NCU's International Partners	31
Global Immersion at NCU	32
Campus Experience	34

Rankings, Ratings and Quality Benchmarks



Established under Haryana Private University Act No. 25 of 2009 (Third amendment)



- **Recognised by the University Grants Commission**
- **Accorded UGC 12(B) Status**



Recognised by the Bar Council of India, Govt. of India



Accredited by the National Assessment and Accreditation Council (NAAC) as **Grade "A" university**



Member of Association of Indian Universities



Rated as 5-star University by QS Star Rating System 2025



In NIRF, in the Engineering category, NCU is placed in the rank band of 101-150 in 2025



Ranked as 1st in the Engineering category by GHRDC Survey 2025.



School of Management & Liberal Studies was ranked No. 1 in Haryana in GHRDC BBA College Survey, 2024



Ranked as the 2nd Best Law school in Haryana by GHRDC Survey 2025.



Accredited by Accreditation Services for International Schools, Colleges & Universities (ASIC) as a PREMIER INSTITUTION with commendable grades (2nd August 2024 – 1st August 2028)



Member of International Students Exchange Programme



Member of American Society for Quality (India)



Honored with the prestigious University with Modern Infrastructure (Engineering) by the Services Export Promotion Council (SEPC), a unit of the Ministry of Commerce and Industry, Government of India.



Among Top-30 'Best Performer Universities' in Atal Ranking of Institutions on Innovation & Achievements (ARIIA)



In the Green Institutional Rankings 2025, NCU was placed in the Diamond category under the Sustainable Institution of India (SII) Awards.



NCU received the District Environment Championship Award 2025 for Gurugram, conferred by the National Edu Trust of India.

About NCU

Established in 1996, formerly known as ITM University, The NorthCap University is a progressive multidisciplinary university located in the city-centre of Gurugram, Haryana. The university's rich heritage of 30 years, 15,000+ alumni and a robust academic infrastructure enables deep linkages with government, industry and research bodies. The university operates multiple schools and departments in its state-of-the-art urban campus and hosts a diverse student body of engineering, technology, management, liberal arts, law, media & entertainment, business and applied science aspirants.

NCU is recognised by the University Grants Commission (UGC) and accorded 12 (b) status. It is also recognised by the Bar Council of India (BCI). NCU is a Member of the Association of Indian Universities (AIU), a Member of the American Society for Quality (ASQ) and is accredited by Accreditation Services for International Colleges (ASIC), UK, as a 'Premier Institution.' NCU has an overall 5-Star Rating in the prestigious QS Stars Rating System, and ranks among the Top 30 Best Performing Universities as per ARIIA rankings.

NCU is a National Assessment and Accreditation Council (NAAC) Grade 'A' accredited university that serves as a research as well as talent catalyst between students and industry. Guided by eminent academicians and industry leaders, it follows an immersive pedagogy to deliver undergraduate, postgraduate as well as doctoral programmes. With an extensive network of international university partners, NCU offers students the chance to engage in global semester exchanges, twin and dual degree programmes and cutting-edge research collaborations for unparalleled academic and cultural enrichment.



3,500⁺
STUDENTS

15,000⁺
ALUMNI

250⁺
PLACEMENT
PARTNERS

Message from the Pro - Chancellor



Prof. Prem Vrat
Pro - Chancellor,
The NorthCap University

The BTech ECE (Semiconductor Design and Technology) programme reflects our strategic commitment to advancing India's semiconductor and manufacturing capabilities. Developed in collaboration with IIT Mandi, NSDC, and leading industry stakeholders, the curriculum integrates industry-relevant training, research orientation, and experiential learning. By combining academic rigor with practical exposure, we are building a robust talent pipeline equipped to meet the evolving demands of the semiconductor and electronics sectors in India and globally.



Message from the Vice Chancellor

Prof. Nupur Prakash
Vice Chancellor,
The NorthCap University



It gives me great pride to see the BTech in Electronics and Communication Engineering with specialisation in Semiconductor Design and Technology progressing successfully at our University. Aligned with India's vision of becoming a global semiconductor hub, the programme is strengthened through academic collaboration with IIT Mandi, NSDC, and reputed industry partners in the semiconductor domain. With a strong emphasis on design, fabrication fundamentals, advanced tools, and hands-on learning, the programme prepares future-ready engineers to contribute meaningfully to the global ESDM ecosystem.



From the HOD's Desk



Prof. Sharda Vashisth
Professor, HoD,
Multidisciplinary Engineering

"It gives me immense pleasure to introduce the **BTech ECE in Semiconductor Design and Technology**, a significant step towards bridging the gap between academia and the rapidly evolving semiconductor industry. This programme has been carefully designed to equip students with the necessary knowledge, skills, and hands-on experience required to contribute effectively to this crucial sector.

Aligned with the **All India Council for Technical Education (AICTE)** guidelines and the vision of the **India Semiconductor Mission (ISM)**, this programme aims to develop a highly skilled workforce that can drive innovation and self-reliance in semiconductor design and manufacturing. With the increasing global demand for advanced semiconductor technologies, there is a pressing need for professionals who can contribute to India's growing presence in this strategic domain.

Our curriculum integrates fundamental principles with practical applications, covering key areas such as VLSI design, fabrication processes, device modeling, packaging, testing and emerging trends like AI-driven chip design. We have collaborated with industry experts and premier institutions to ensure that students receive exposure to real-world challenges and the latest technological advancements.

Our faculty comprises experienced academicians and industry professionals dedicated to mentoring students and fostering an environment of research and innovation. The state-of-the-art laboratories, industry internships, and hands-on projects will provide students with a strong foundation in semiconductor design and fabrication.

We believe that this programme will not only nurture young minds to become skilled semiconductor professionals but also contribute to the nation's goal of becoming a global hub for semiconductor manufacturing and design. I invite aspiring engineers to embark on this exciting journey and be part of the future of technology."

Global Market Trends - India Poised To Be the Next Semiconductor Superpower

India is witnessing a decisive shift in its semiconductor landscape, driven by strategic policy interventions, large-scale capital investments, and global supply chain realignments. The country's semiconductor market is projected to more than double by 2030, supported by strong demand from sectors such as electronics, automotive, telecommunications, AI, and data centres. With increasing focus on design-led manufacturing, advanced packaging, and research-driven innovation, India is positioning itself not only as a major consumer but as an emerging global contributor in semiconductor production and talent development.

India's Semiconductor Mission aims to position the country as a global hub for semiconductor manufacturing and research. With foundries like Tata Electronics, Vedanta-Foxconn, Micron, and ISMC Analog Fab, India is moving toward self-reliance in chip manufacturing. The government's \$10 billion incentive scheme has accelerated investments, fostering economic growth and technological advancements. As semiconductor demand surges and AI-driven applications expand, the need for skilled professionals grows. Pursuing this degree offers a pathway to be part of this technological transformation.

- India's semiconductor market is projected to **more than double by 2030**, growing from about **\$45-50 billion in 2024-25** to approximately **\$100-110 billion by 2030**.
- Smaller chip segments like **integrated circuits** are expected to expand significantly, with some forecasts showing revenue hitting **~\$34.5 billion by 2030** (up from around \$12.5 billion in 2025).
- The **India Semiconductor Mission and its successor ISM 2.0** have been launched with substantial fiscal support (₹76,000 crore + ₹1.25 lakh crore estimated budget).
- Production-Linked Incentive (PLI) schemes have approved many projects that are directed at building fabrication, packaging, and testing capacity across states like Gujarat, Andhra Pradesh, Tamil Nadu, Punjab, and Odisha.
- **Tata Group's fab and OSAT facilities** represent over **\$10 billion in investments** into semiconductor production.
- **Micron Technology** is establishing a \$2.75 billion assembly and test facility.
- US chipmaker **Intel + Tata partnership** plans advanced manufacturing and packaging with investments above **\$14 billion**.
- An L&T fab proposal could invest up to **\$10 billion before 2027**.
- Projects like the **HCL-Foxconn semiconductor unit in Noida (~₹3,706 crore)** plan to produce **20,000 wafers per month** with estimated output in the tens of millions of chips annually.
- India currently accounts for roughly **6.5% of global semiconductor demand** while contributing a small share of global wafer manufacturing (~0.1%).
- With global supply chains diversifying ("China-plus-one" strategy), India's **large internal market and talent pool** make it attractive for localized production and design.
- India supplies **~20% of the world's chip designers** to global firms, underscoring a strength in **design and engineering talent**.

Why India Looks Poised for a Big Leap in Semiconductor Industry

Indicator	Current (2024-25)	Projected (2030)
Market Size	\$45-50 billion	~\$100-110 billion
Domestic investment	~₹76,000 crore (ISM-1.0)	~₹1.25 lakh crore (ISM-2.0)
Major fab projects	Few under development	Multiple with multi-billion investments
Talent share	~20% of global design workforce	Positioned to expand

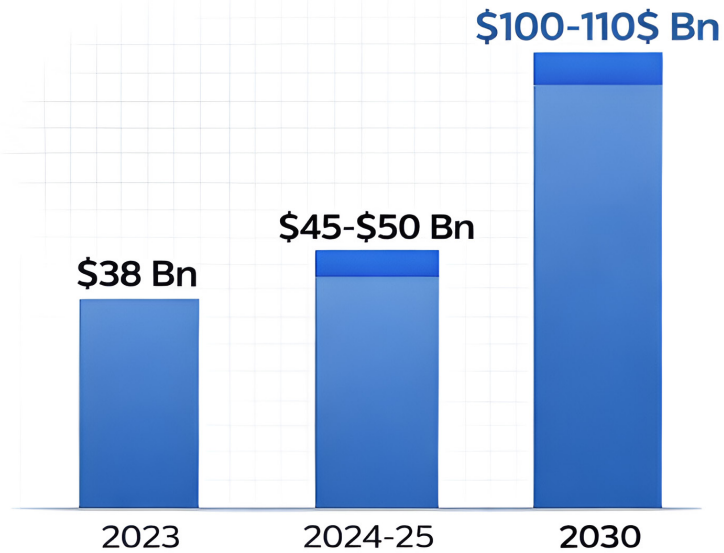
Semiconductor Talent Demand in India (2024-2027 & Beyond)

Year / Period	Estimated Skilled Workforce Requirement
2024	~ Current demand growing rapidly
By 2026	Potential demand for ~1,000,000 jobs across semiconductor value chain (fab, ATMP, design, etc.) - highlights hiring surge especially for engineers, technicians and specialists.
By 2027	Estimated shortage of 250,000-300,000 skilled professionals in R&D, design, manufacturing and packaging.
By 2027 (alternative)	Total workforce need expected at ~250,000 to 300,000 additional skilled professionals in core semiconductor domains.
By 2030-32	India aims to develop ~1.2-1.7 million semiconductor professionals (multiple levels including technicians, engineers, and specialists).

Size of the Indian Semiconductor Market

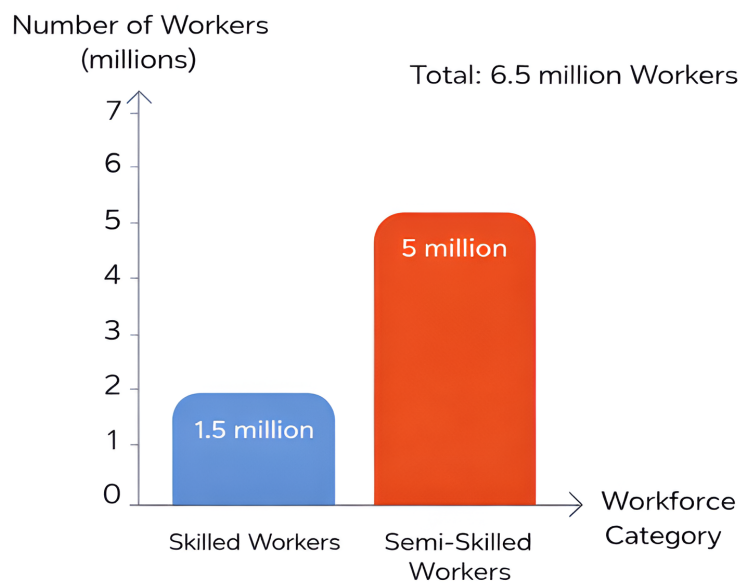


(In USD Billion)



Source: Ministry of Electronics and Information Technology

India's Semiconductor Workforce Requirement (FY 2026-27)



Academic & Industry Partnerships

NCU's BTech is in Collaboration with IIT Mandi and NSDC



NCU Signed an Agreement with IIT Mandi & NSDC to Launch Industry-Aligned Semiconductor Programme

NCU has partnered with the Indian Institute of Technology (IIT) Mandi and the National Skill Development Corporation (NSDC) to launch an advanced BTech in Electronics and Communication Engineering (ECE) with a specialisation in Semiconductor Design and Technology.

This strategic collaboration aims to bridge the semiconductor industry's skill gap by providing students with industry-relevant knowledge and hands-on training. Jointly certified by NCU and IIT Mandi, the programme integrates cutting-edge semiconductor technologies with a strong academic and practical foundation.

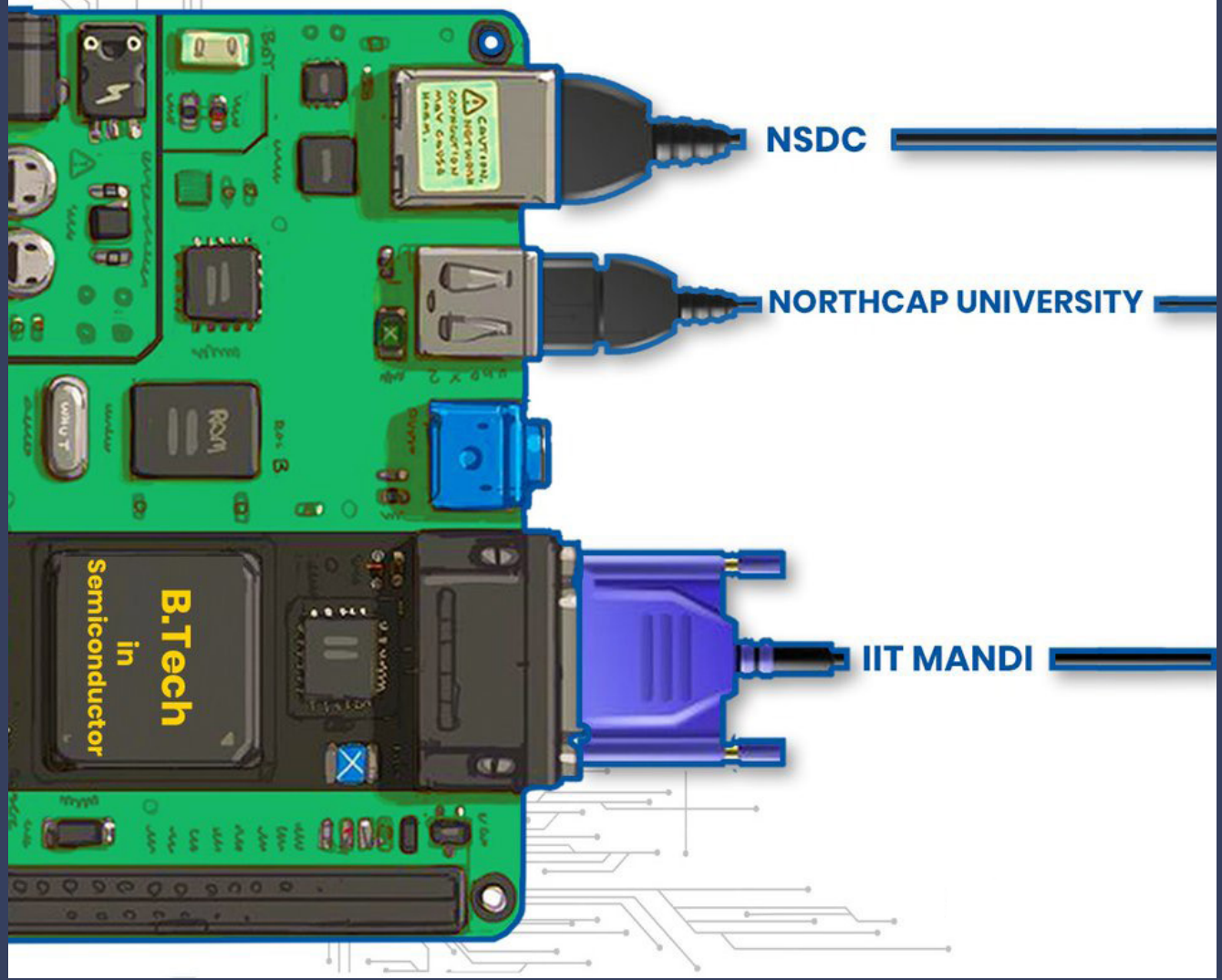
Key Highlights of the Partnerships:

- **Programme Structure:** Curriculum co-developed and co-delivered with IIT Mandi, bridging academic excellence with real world experience.
- **Expert-Led Curriculum:** IIT Mandi faculty will deliver specialised courses through online, offline, and hybrid modes.
- **Immersive Learning:** Students will participate in 6 hands-on sessions spread across 6 semesters at IIT Mandi's advanced laboratories and clean rooms..
- **Industry Alignment:** NSDC will facilitate industry partnerships, internships, and skill loans to enhance accessibility and employability.
- **Credit Recognition:** Students will earn credit certifications from IIT Mandi, with credits transferable to NCU for degree completion.
- Earn CCE IIT Mandi fellow status & credit certification ceremony at IIT Mandi.

IIT-level education, right here at NCU.



Powering Semiconductor Engineering Together



Learn with the Industry, Sahasra Semiconductors Pvt. Ltd.



NCU has established a strategic collaboration with Sahasra Semiconductors Pvt. Ltd., a leading name in semiconductor manufacturing and technology solutions, to enhance its BTech ECE programme in Semiconductor Design & Technology. This partnership is designed to bridge the gap between academia and industry, promoting innovation, research, and skill development in semiconductor technology and chip design.

Key Highlights of the Collaboration:

- Students will have access to mass production lines for demonstrations and hands-on exposure to packaging & testing as part of industry lab and classroom sessions.
- Classes and lab sessions on production processes will be conducted at Sahasra Semiconductors Pvt. Ltd.
- Packaging course lab sessions will take place at Sahasra, providing real-world industry experience.
- Students will work on live projects with a strong focus on project-based learning, gaining exposure to cutting-edge technologies under the mentorship of industry experts.
- The collaboration will facilitate internship and employment opportunities in the rapidly growing semiconductor sector.



Go Global with Taiwan - The World's Chip Capital



Taiwan leads the global semiconductor industry, producing 60% of the world's chips and 90% of the most advanced ones. To succeed in this dynamic field, technical expertise alone isn't enough—you need global readiness.

In collaboration with Taiwan's National Tsing Hua University (NTHU), NCU has inaugurated Taiwan Education Centre (TEC) on its campus. It represents a landmark development in enhancing educational and cultural ties between Taiwan and India. This centre serves as a hub for promoting Mandarin language studies and has been joined by an on-campus Taiwanese instructor from NTHU, Taiwan, to provide immersive language and cultural instruction, required for Semiconductor industry.

Benefits of Taiwan Education Centre for NCU Students

Among its key objectives, the centre aims to offer specialised training programmes for faculty and students in semiconductor technology, with opportunities to engage in hands-on learning experiences in Taiwan. TEC aspires to strengthen academic collaboration, advance technological expertise, and deepen mutual understanding between the two regions, ultimately fostering a more interconnected global educational community.



Industry Exposure

Collaboration with Taiwan's leading semiconductor firms



Internship & Placement Opportunities

Possible pathways for students to secure positions in Taiwan's semiconductor industry



Technology Exchange

Access to best practices in semiconductor design and fabrication



Joint Research & Innovation

Participation in global research projects on semiconductor advancements

About the Programme

The BTech ECE in Semiconductor Design & Technology is an undergraduate programme designed to meet the growing demands of the semiconductor industry. This innovative programme combines core principles of semiconductor technology with specialised training in materials, device design, fabrication, packaging, and testing.

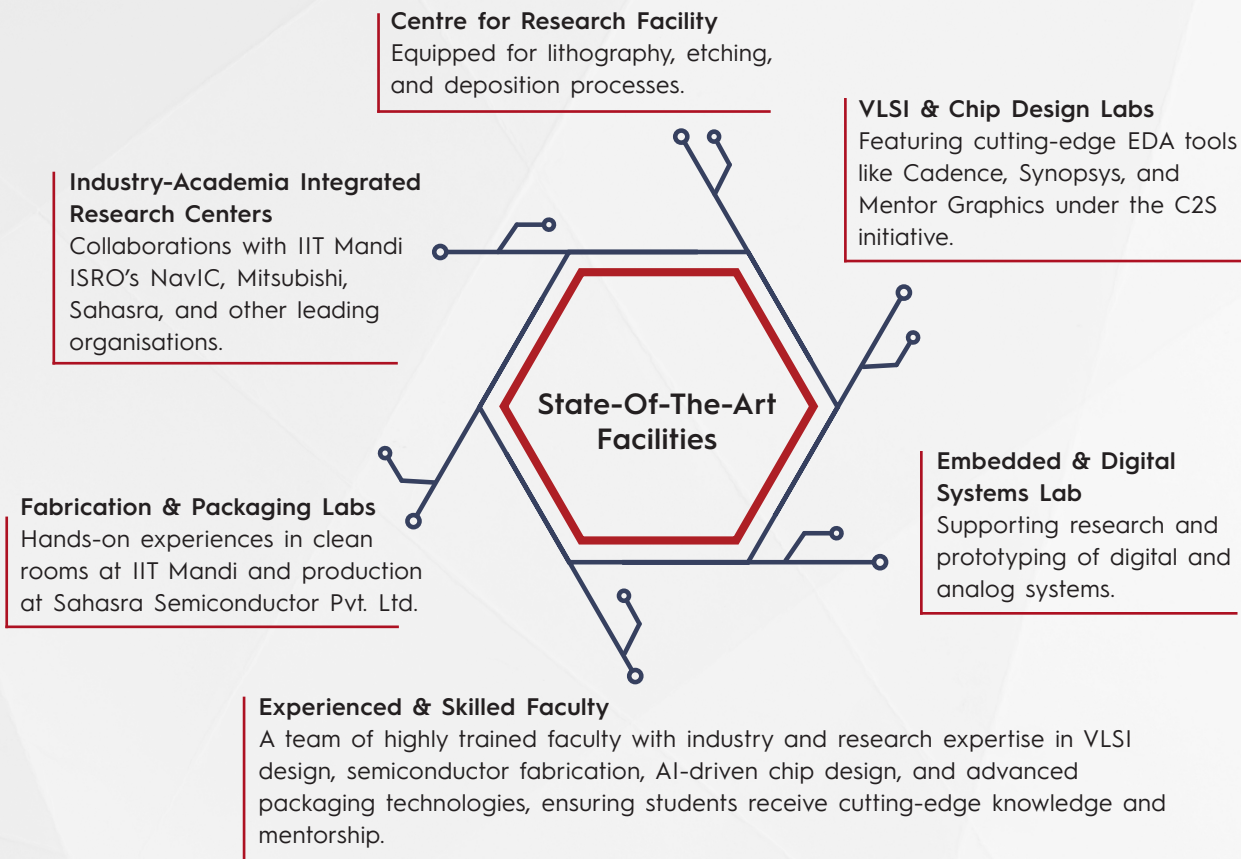
The programme has strong emphasis on hands-on learning and industry relevance, offering students practical exposure through laboratory sessions, clean room access, industry internships, and collaborative projects with leading semiconductor companies. The programme also provides opportunities to learn from expert IIT faculty and earn credits from IIT Mandi, equipping students with the skills and experience required to thrive in the semiconductor sector.



Programme Modules

Semiconductor Device & Design	Semiconductor Manufacturing	Semiconductor Packaging
Semiconductor Physics	Introduction to Microfabrication	Semiconductor Packaging and Testing
Nano Technology and Semiconductor Material Engineering	Semiconductor Fab Infrastructure	Materials for Semiconductor Packaging
Analog IC Design	Semiconductor Fabrication	Package Design and Simulation Tools
Digital CMOS VLSI Design and Layout	Industrial Safety for the Semiconductor Industry	EMC and Signal Integrity
RTL Design and Synthesis	Semiconductor Equipment Design and Technology	Advanced Packaging Technology
VLSI Verification and Testing	Industrial Automation and Robotics	AI and Semiconductors

Infrastructure Overview



Semiconductor Fabrication and Characterisation at NCU

The state-of-the-art characterisation facilities at NCU provide advanced tools for material and device analysis. Equipped with cutting-edge instruments such as Scanning Electron Microscope (SEM), X-Ray Diffraction (XRD), UV-Vis Spectrophotometer, and more, these labs support high-quality research in semiconductors. These facilities are actively used by students and faculty for in-depth experimental investigations and innovation-driven projects.



Semiconductor Design Lab at NCU

The VLSI Design facilities at NCU are equipped with advanced computing infrastructure and industry-standard tools. Under the C2S scheme, students have access to premier EDA tools such as Cadence, Synopsys, Keysight, Xilinx, Ansys and Mentor Graphics. These labs support end-to-end design, simulation, and verification of complex semiconductor devices, fostering innovation in chip design and embedded systems.



Software Resources at NCU Under the C2S Scheme

Under the Government of India's flagship initiative, Chips to Startup (C2S) scheme, The NorthCap University (NCU) has established a state-of-the-art ecosystem to foster research, design, and innovation in semiconductor design and embedded systems. As part of this initiative, NCU provides access to a comprehensive suite of industry-standard software tools and development environments to empower students, faculty, and researchers in the field of VLSI, embedded systems, and chip design.

Key Software Tools Available at NCU under C2S:

cādence[®]

SYNOPSYS[®]

XILINX

**KEYSIGHT
TECHNOLOGIES**

SIEMENS

Ansys

Clean Room Facilities at IIT Mandi & Sahasra

The clean room facility at IIT Mandi and Sahasra Semiconductors Pvt. Ltd., accessible to NCU students, offers a controlled environment for hands-on training in semiconductor fabrication and packaging. Equipped with advanced tools for processes like photolithography, etching, and thin-film deposition, and packaging and testing, it provides a valuable platform for practical learning and cutting-edge research.



LAM Research Software Facility for Semiconductor Studies at NCU



NCU offers access to specialised LAM Research software tools at IISc Bangalore supporting advanced semiconductor process modeling and simulation. This facility plays a pivotal role in training students and researchers in state-of-the-art fabrication technologies and supports academic and industrial R&D in the field of VLSI design, nanotechnology, and semiconductor manufacturing.

Key Features and Capabilities:

- **Process Simulation:** Enables simulation of key semiconductor fabrication steps such as etching, deposition, cleaning, and CMP (Chemical Mechanical Polishing).
- **Virtual Cleanroom Environment:** Offers a safe, cost-effective alternative to hands-on fabrication, allowing users to model process flows and optimise device structures before actual prototyping.
- **Training and Certification:** The software is integrated into course curricula and research projects, with periodic training sessions conducted for students, faculty, and scholars.
- **Real-World Application:** Enables understanding and optimisation of sub-micron process technologies, as well as FEOL (Front-End-Of-Line) and BEOL (Back-End-Of-Line) processes.

Applications:

- Design and simulation of transistors, interconnects, and semiconductor layers
- Process flow validation and failure analysis
- Support for thesis and dissertation work in electronics, nanotech, and materials engineering
- Skill development for semiconductor industry roles

By offering access to LAM Research's industry-standard software, NCU empowers its students and researchers to bridge the gap between academic learning and industrial application, aligning with India's growing focus on semiconductor self-reliance and innovation.

NCU: Member of IESA – Powering the Future of Semiconductor Design and Technology

The NorthCap University (NCU) proudly joins the India Electronics and Semiconductor Association (IESA), a premier industry body driving innovation in the electronics and semiconductor sectors. This prestigious membership reinforces NCU's commitment to excellence in Semiconductor Design and Technology, providing students and researchers with unmatched access to industry insights, advanced resources, and cutting-edge opportunities.

Through IESA, NCU students and faculty benefit from:

- Direct access to industry-relevant expertise, tools, and skill development programmes
- Opportunities to participate in leading conferences, workshops, and innovation challenges
- Expert mentorship from seasoned professionals in the Electronics System Design and Manufacturing (ESDM) sector
- Strong networks connecting academia with potential clients, partners, and investors
- Access to funding opportunities and startup support for entrepreneurial initiatives
- Collaborative platforms to drive growth, research, and innovation in semiconductor technologies

By integrating academic rigour with real-world industry engagement, NCU prepares students to become leaders in the fast-evolving semiconductor and electronics landscape, fuelling India's vision of technological self-reliance and global leadership.



NCU - A Proud Member of the VLSI Society of India:

Advancing Excellence in Chip Design and Semiconductor Innovation

NCU is a proud institutional member of the **VLSI Society of India (VSI)**, a premier organisation dedicated to advancing the fields of Very Large Scale Integration (VLSI) design, semiconductor technology, and microelectronics.

This membership represents a major step in NCU's commitment to fostering world-class research, education, and innovation in semiconductor design and technology. As a member of VSI, NCU engages closely with industry experts, research communities, and academic leaders driving cutting-edge developments in VLSI and chip design.

Through this association, students and faculty at NCU benefits from:

- Access to expert seminars, technical workshops, and conferences organised by VSI
- Opportunities for collaborative research and project-based learning in VLSI design, fabrication, and system integration
- Mentorship and training programs guided by industry veterans and leading researchers
- Participation in national and international VLSI design contests and hackathons
- Networking with professionals from top semiconductor companies and R&D organizations
- Enhanced career pathways in semiconductor design, verification, and fabrication industries

As a proud member of VSI, NCU continues to strengthen its Semiconductor Design and Technology ecosystem—equipping students to meet the rising global demand for skilled professionals in VLSI and semiconductor sectors. NCU is actively contributing to VSI's vision of positioning India as a global hub for semiconductor design and innovation, aligned with national missions like 'Design in India' and the 'Semiconductor India Programme.'



Immersion Programme at IIT Mandi

Advancing Semiconductor Excellence



Our B.Tech ECE students recently completed an enriching immersion programme along with their first-semester module at IIT Mandi, experiencing a dynamic blend of learning, research, and innovation. During their time at IIT Mandi, the students visited several advanced research facilities, including the Advanced Materials Research Centre, Materials Synthesis and Characterisation Laboratory, and the Advanced Display and Semiconductor Lab, among others. The B.Tech ECE students specialising in Semiconductor Design and Technology were formally welcomed by IIT Mandi as part of the 2025 intake, marking the commencement of a meaningful academic collaboration.



Faculty board Interaction during Inauguration Session

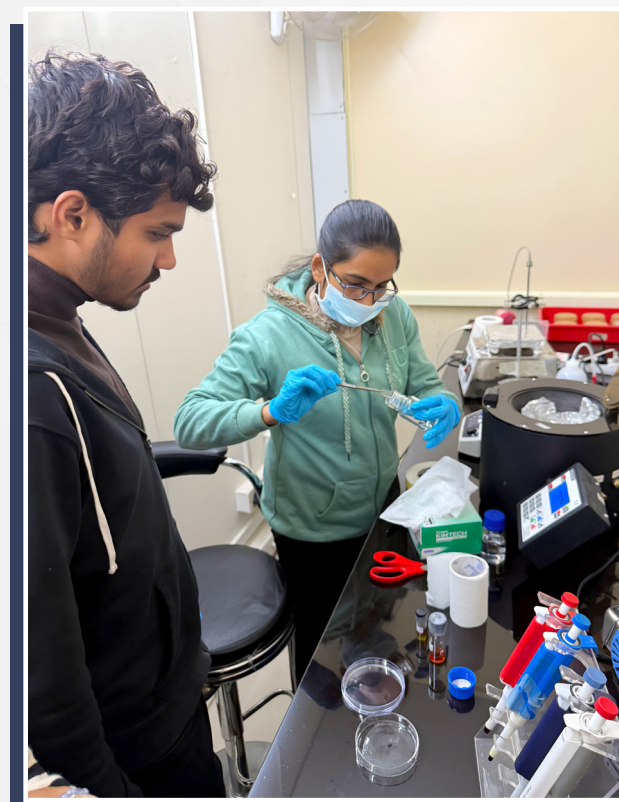
Under this unique partnership, the students were taught and trained by IIT Mandi faculty in advanced areas of semiconductor design and technology.

Through this collaboration, the students gained access to a vibrant academic ecosystem, state-of-the-art laboratory infrastructure, research-driven learning, and valuable professional exposure. They received hands-on training and practical exposure to advanced equipment and techniques such as SEM, TEM, XRD, CVD, spin coating, lithography, and etching, enabling them to understand how foundational engineering concepts translate into cutting-edge research and real-world applications.

NCU launched the B.Tech Electronics & Communication Engineering programme with a specialisation in Semiconductor Design & Technology in alignment with India's Semiconductor Mission, with a shared vision of nurturing future-ready engineers. This exposure proved crucial in today's rapidly evolving technology landscape, equipping students with early research experience, familiarity with advanced instrumentation, and a strong foundation in semiconductor and materials technologies—the key drivers of modern electronics and the semiconductor industry.



Hands-on Exposure during lab sessions at IIT Mandi





Thin-film Display Lab at IIT Mandi



Student Experiences at IIT Mandi



Manvi Yadav

BTech ECE
Semiconductor Design and Technology
Batch 2025-29

I was grateful for the B.Tech ECE Semiconductor Design and Technology programme introduced by The NorthCap University in collaboration with IIT Mandi. The programme was designed in a highly structured manner, which helped us learn core Electronics and Communication subjects along with strong semiconductor fundamentals, enabling a clear understanding of the concepts.

One of the biggest advantages of this programme was the IIT Mandi immersion experience. It gave us the opportunity to experience IIT academic life, interact with faculty members, and clarify our doubts. We also visited laboratories and gained hands-on exposure to experiments such as characterisation and synthesis of thin films, SEM, TEM, and several others. For a first-year student, the experience was truly exciting and enriching.

Overall, the immersion significantly enhanced my learning experience and strengthened my interest in the field. I am thankful for this opportunity.



Pranay Chopra

BTech ECE
Semiconductor Design and Technology
Batch 2025-29



Through NCU's collaboration with IIT Mandi, I had the opportunity to participate in an immersion programme at the IIT Mandi campus.

My first visit to the IIT Mandi campus was an excellent experience. I enjoyed the time spent with my peers and gained valuable academic insights from the highly knowledgeable and experienced faculty members, as well as from my seniors. Interacting with seniors proved especially helpful, as they shared valuable guidance and advice.

The primary objective of our visit was to gain hands-on experience with advanced laboratory equipment that is rarely available elsewhere in India. It was an enriching experience to observe these instruments in action and see theoretical concepts applied in real time. I also learned several advanced concepts related to my specialisation in Semiconductor Design and Technology, which will be beneficial for my future.

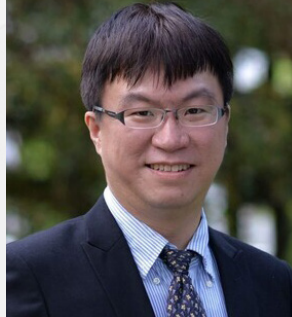
Overall, the immersion programme was highly enjoyable and academically rewarding. I gained meaningful learning experiences that I look forward to applying in the future.

Semiconductor Leaders at NCU



Mr. Satya Gupta

President,
VLSI Society of India
Founder & CEO,
EPIC Foundation



Prof. Chang-Chun Lee

Professor, NTHU; CEO,
Tze-Chiang Foundation of
Science & Technology (TCFST),
Taiwan



Prof. JP Singh

Head of Nanoscale
Research Facility,
GLAD and Nano-CVD Lab,
IIT, Delh



Dr. Rakhi Nangia

Deputy Director,
India Electronics & Semiconductor
Association (IESA); Semiconductor Fab
Policy Advisory, Ministry of Electronics
and Information Technology



Prof. V. V. Rao

Visiting Professor,
Indian Institute of Technology,
Tirupati; Former Professor at
IIT, Kharagpur



Dr. Vinay Budhraja

Assistant Professor, Dept.
of Electrical Engineering,
Northern Illinois University,
United States



Colonel. Anurag Awasthi (Retd.)

Vice President, India Electronics &
Semiconductor Association (IESA)



Dr. Ramachandra Chitakudige

Project Director, Central
Manufacturing Technology Institute



Mr. Devender Khari

Engineering Director
Agnisys Technology
Founder - DKOP Labs

Alumni Testimonials



Ritu Arora

ASIC Digital Design, Sr. Staff Engineer
Synopsys EDA (Formerly Mentor Graphics)
BTech-ECE, Batch of 2011

My experience at NorthCap University (then ITM) from 2007 to 2011 in the Electronics & Communication Engineering department was truly enriching. The university fostered a great learning environment, thanks to our dedicated professors who always encouraged us to go beyond textbooks and think practically. The infrastructure was excellent, providing all the necessary resources for both academic and

extracurricular growth. The university's focus on a well-rounded education, including technical workshops, activities, and cultural/technical fests helped shape not just our technical skills but also our overall personality. A special mention to the faculty of Electronics & Communication Engineering for its strong industry outreach and focus on VLSI/Semiconductor. The additional exposure beyond the regular syllabus has been invaluable, especially now with the growing opportunities in this field.

I sincerely thank my professors, fellow students, and the university leadership for creating such a positive and impactful learning environment. Looking back, I truly appreciate how those four years at NCU helped lay the foundation for my career.



Akshat Mathur

Member of Consulting Staff
Siemens EDA (Formerly Mentor Graphics)
BTech-ECE, Batch of 2018

I am Akshat Mathur, an alumni of The NorthCap University. I am currently working as Member of Consulting Staff at Siemens EDA (formerly Mentor Graphics) Noida, in the FPGA Synthesis team. My journey with Mentor started off as being a trainee at the prestigious HEP programme that Mentor organises. My journey ever since has been a total roller coaster. With my perseverance and the amazing guidance of my professors at NCU, I was able to see the vast spectrum of opportunities that the VLSI domain holds and how I should work to grab these opportunities. Looking back I realise much I have learnt from my professors. The knowledge they imbibed in me is actually helping me to solve real industry problems. Pursuit of knowledge is however a never ending process and I still need to learn a lot to converge to my definition of success.





Aishwarya Basotia

Principal Software Engineer
Cadence Design Systems
BTech-ECE, Batch of 2017

I can proudly say that I am an alumni of The NorthCap University. The university always provided me with all the resources and the best environment needed for excelling in Electronics Engineering. The faculty have the most helping nature and they shall be with you even years after you graduate as is the case with me. Through the university, I got exposure to VLSI design and was able to join Cadence Design Systems as a fresher.

This is something that even people from top colleges are not able to achieve. I have had a successful career since then and am currently working as a Principal Software Engineer at Cadence Design Systems. This would never have been possible without the foundation laid out for me by The NorthCap University. I would like to give special mention to faculty members Dr Sharda Vashisth, Dr Vanadana Khanna and Dr Neeraj Kr Shukla who always provided me support.

Pulkit Bhatnagar

Apple Inc., USA
BTech-ECE, Batch of 2012

I am grateful for the opportunity to share my experience at NorthCap University. I graduated in 2012 with a degree in Electronics and Communication Engineering from the then Institute of Technology & Management (ITM), witnessing its remarkable transition to a university. NCU provides an exceptional platform to develop both technical and soft skills through extracurricular activities, societies, and clubs. This, combined with practical learning and support from dedicated faculty, ensures significant personal and professional growth. The hands-on approach and experienced faculty set NCU apart, making it an excellent choice for comprehensive learning and personal development.



Pradeep Yadav

Application Engineer
Synopsys EDA (Formerly Mentor Graphics)
BTech-ECE, Batch of 2022

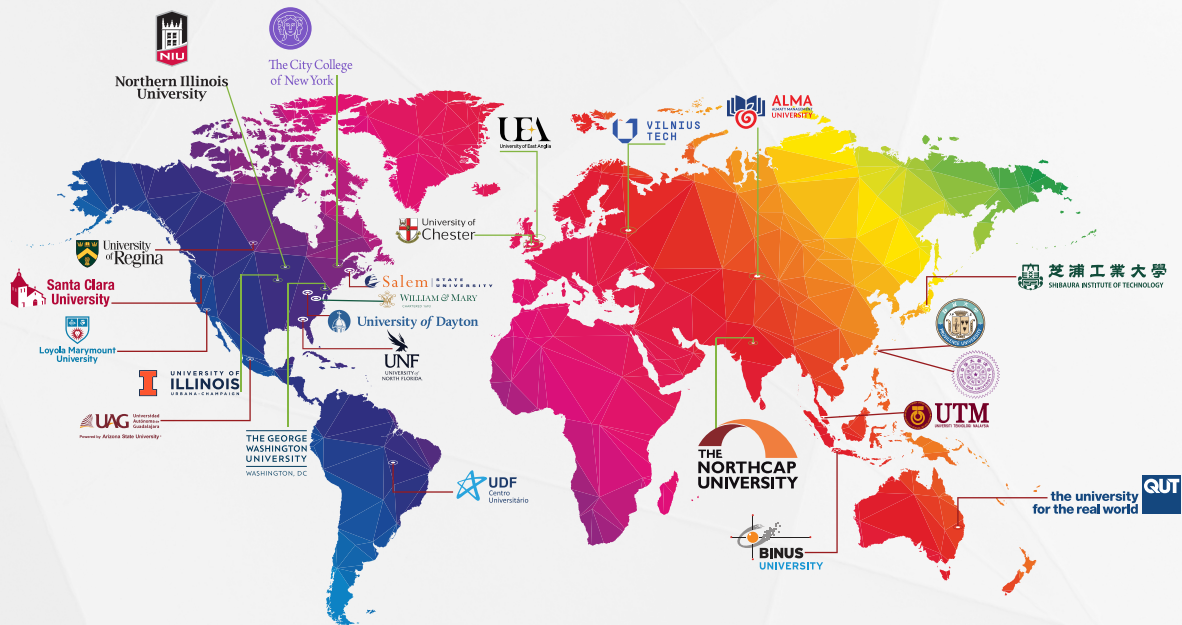
My engineering journey at The Northcap University has been amazing. I have been placed at Synopsys EDA company. All the training that I received during my course at Northcap University has been really helpful. I'm very grateful to my prestigious university for giving me an opportunity to become a successful professional.

Opportunities with NCU's International Partners

Co-teaching, Immersion, Student & Faculty Mobility and Research

NCU is proud to have partnered with 30+ reputed institutions from across the world based on four pillars embracing India's New Education Policy (NEP) 2020: Digital-First, Innovation, Internationalisation and Organisational Readiness. The university has signed a number of MoUs and has entered into many collaborative partnerships with international universities to promote:

- Exchange of information, experience & culture
- Student exchange programmes
- Short and long-term exchange of faculty members
- Collaborative research
- Summer internship & immersion programmes for students
- Dual degrees



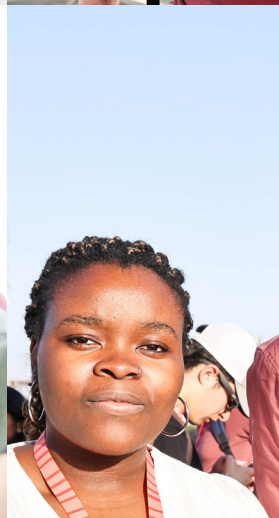


Global Immersion at NCU

At The NorthCap University, global learning is a core pillar of our academic philosophy. Every year, we design and host a series of international immersion programmes that offer students and partner universities a meaningful blend of academics, research exposure, and cultural discovery. These curated experiences help participants understand India's rapidly evolving knowledge ecosystem while fostering long-term global collaborations.

One such flagship initiative is India Odyssey, organised by NCU's International Relations Office for students from the University of North Florida (UNF), USA. The programme was crafted to provide a transformative journey, combining classroom-based learning with real-world insights and immersive cultural engagement.

During the programme, participants attended expert-led academic sessions, interacted with researchers, and visited key institutions and industry partners to understand India's technological, business, and policy landscape. These curated interactions offered a nuanced perspective on innovation, sustainability, and emerging opportunities in the Indian context. Beyond academics, the students experienced India's diverse cultural fabric. From exploring historic monuments and contemporary architecture to navigating bustling markets, trying



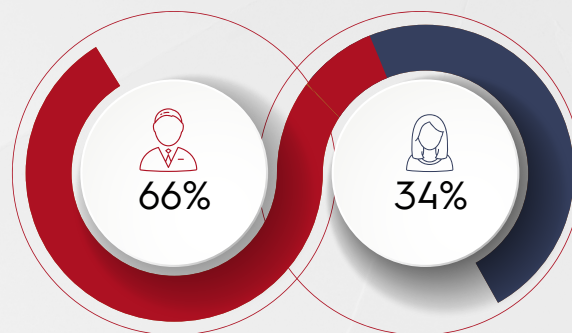
regional cuisines, and participating in traditional art forms, the cohort witnessed the vibrancy, warmth, and richness of Indian culture firsthand.

Programmes like India Odyssey exemplify NCU's commitment to building globally competent learners. By bringing together academic exchange, cultural immersion, and collaborative learning, these initiatives strengthen international partnerships and nurture a deeper appreciation of India's academic, industrial, and cultural landscape.



A Safe, Inclusive Campus for Everyone

At NCU, we prioritise nurturing female talent and strongly support advancing education opportunities for women.



BTech ECE
Semiconductor



Zero Tolerance for Ragging

At NCU, we take immense pride in maintaining a campus that is both safe and inclusive for all students. With a strict zero-tolerance policy towards ragging, we ensure a supportive and respectful environment where every individual is valued. Our commitment to fostering a culture of respect, safety, and camaraderie allows students to thrive academically, socially, and personally, making NCU a place where every voice is heard and every student feels welcome.

Scholarships and Fee Concessions

The NorthCap University is deeply committed to upholding the 'Right to Education' for all students, ensuring that no one faces barriers in their academic journey. We are dedicated to providing merit-based scholarships, fee concessions, and financial support each term, enabling students to pursue their educational goals without difficulty. Our mission is to empower students to achieve their aspirations, equipping them to succeed in today's competitive job market and to become responsible global citizens.

Each year, we celebrate the achievements of our top-performing students and offer fee concessions and financial aid to those from diverse socio-economic backgrounds. Students who make it to the Dean's List are also recognised and rewarded with scholarships.

Programme	Annual Fee for Indian Students (INR)			Annual Fee for Child/Ward of NRI/International Students (INR)
	TUITION FEE	DEVELOPMENT FEE	TOTAL ANNUAL FEE	ANNUAL FEE
BTech ECE - Semiconductor Design and Technology	3,29,600	82,400	4,12,000	5,88,000/-

An Exhilarating Campus Experience

A Campus that Inspires Creativity



An incredible campus experience awaits you at The NorthCap University. Make best use of the opportunity to engage in a full-campus experience. Discover your talent, hone your skills and partake in an exciting campus life.

NCU offers you a place to meet people from different backgrounds, join exciting clubs and societies, engage in various fests, competitions and events and get involved in volunteering, sporting and cultural activities. Student satisfaction is our end goal, and we keep upgrading facilities and technology so our students can achieve their education, career, and personal goals, and become active members of the community at large.

Our bustling campus life is a testament of NCU's vibrant, welcoming, inclusive and safe campus life. **Come, discover your passion as part of our community of 3500+ students and 15,000+ alumni.**

The Only University in Gurugram's City-centre Offering a Holistic Educational Experience



Scholarships 2025

- Avail up to 35% tuition fee waiver for BTech based on 12th grade performance (CBSE/equivalent board).
- UG NLT-Based Scholarships: Based on exceptional performance in JEE
- Single Girl Child Scholarship: 15% tuition fee scholarship for single girl students in undergraduate programmes.
- 15% Concession on tuition fees for University Alumni's ward(s) and spouse.
- Upto 100% scholarships for girls in STEM (HATCH Scholarships)

Education Loans available through all major banks.

केनरा बैंक  Canara Bank |  kuhoo |  grayquest
Fee Made Fantastic

Bank	Name	Mobile	Email
Canara Bank	Madan Yadav	7496918247, 9821530576	cb18247@canarabank.com
Kuhoo	Ankit Sharma	7558559325	ankit.sharma@kuhoo.com
Grayquest	Mehul Jain	9520380301	mehul.jain@grayquest.com



**THE
NORTHCAP
UNIVERSITY**

Formerly ITM University, Gurugram

Sector 23, Gurugram-122017

www.ncuindia.edu | ncu@ncuindia.edu

93113 00803



Scan to
know more

© The NorthCap University. All rights reserved.