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Quality Benchmarks

In keeping with the changing demands in education, NCU offers a redesigned curriculum that prepares you for the future workplace. The learning methodology integrates multi-disciplinary and contemporary global pedagogy across Law, Management, Sciences & Engineering and Technology along with skills and competencies such as critical thinking, problem solving and working in cross-functional teams - essential constituents for modern day success. At NCU, we ensure your professional development through engaging modules in personal development, communication and leadership.

The University ranked in rank band 101 to 150 in the NIRF Ranking released on 3rd April 2017 by MHRD

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

Recognised by the University Grants Commission, Govt. of India, under Section 2(f) of the UGC Act 1956, and empowered to grant degrees under Section 22 of the Act.

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

University is accredited by the National Assessment and Accreditation Council (NAAC) for period 2016-2021

The NorthCap University Testing Centre established as per ISO/IEC:17025-2005, is NABL Accredited for the Mechanical Testing of Building & Construction Materials.

Accredited by Accreditation Services for International Colleges (ASIC), United Kingdom, in the category of 'Premier' Universities, with 'Commendable' Grades, for 2016-2020

Member of Association of Indian Universities

Member of the Association of Commonwealth Universities

Recognized as the University of the year-2016 by Higher Education Review - Dec 2017

Institutional Member of American Society for Quality (India)

Member of International Students Exchange Programme

University has tied up with IBM Career Education and set up an IBM Lab for Emerging Technologies. IBM conducts courses for the students of ECE, CSE & MBA programmes

iNurture, our knowledge partner is an educational solution company in the business of designing and delivering of innovative industrial relevant jobs in the field of Animation and VFX, Information Technology, Mobile Application and Analytics

Recognised as the BEST @govcampus

School of Law, NCU Ranked No. 5 amongst Top Law Schools of Eminence, All India and No.2 in North India by GHRDC Law Schools Survey 2016

School of Management NCU Rank No. 61 amongst all India Top 100 in Business School Ranking for 2016-17 by MBA Universe :
Founder Members

N K Dewan
Kavita Mishra
Shiv Saran Mehra
V Daulet Singh
Neera Makhija
Avdhesh Mishra
Z Daulet Singh

Vision, Mission and Core Values

Vision
To be known globally for learning innovations, academic excellence and socially relevant research outcomes; strive to become the preferred destination for students, faculty, employers and collaborators & pride of alumni and the community.

Mission
- Focus on quality of learning and innovation in all programmes with rigour and relevance.
- Develop competent professionals - innovative, analytical and independent; committed to excel in all their endeavours.
- Develop linkages globally with government, industry, academia and alumni for knowledge generation, dissemination and application.
- Encourage multi-disciplinarity in programmes and projects to explore new frontiers of knowledge.
- Continuously improve physical, academic and information infrastructure in pursuit of academic excellence.
- Create a nurturing environment for lifelong learning.
- Focus on entrepreneurship and socially relevant projects.

Core Values
- Integrity in all endeavours.
- Humility, compassion and concern for all.
- Passion for quality and excellence.
- Quest for innovation.
- Leadership and Team Spirit.
- Autonomy with Accountability.
- Perseverance.
Message from the Governor

Prof Kaptan Singh Solanki
Governor of Haryana

I am extremely happy to note that The NorthCap University (Formerly ITM University), Gurugram has emerged as one of the leading universities in North India. It is good to see that NCU has been providing high quality education in Engineering, Management and Law. I am impressed by the way this University has grown from strength to strength since its inception to become a unique multidisciplinary University of higher learning in North India. I am happy to see an absolute ragging-free environment in the University and its excellent intake and placement records. The ratio of female employees and students in different streams is praiseworthy. With relevant and innovative courses, excellent infrastructure and qualified faculty, NCU shows its commitment to academic development in India in general and Haryana in particular.

I am confident that the University will continue to deliver quality education to serve as an intellectual resource base in India and the world, I wish NCU, Gurugram all the best in its endeavours to achieve academic goals and excellence.

(Prof. Kaptan Singh Solanki)
Message from the Chancellor

V Daulet Singh
Chancellor, The NorthCap University

It is a pleasure to welcome you to The NorthCap University, a progressive thinking institution of higher learning that meets your aspirations and prepares you for the future workplace. The learning methodology integrates multidisciplinary and interdisciplinary global pedagogy across Law, Management, Applied Sciences, Engineering and Technology. The University promotes creativity, innovation, provides opportunities for experimentation, critical analysis, rational thinking and learning by doing real work. The NorthCap University will prepare you for a sound professional career, ready to seize opportunities, accept challenges and be a leader who can innovate and inspire, find creative solutions to problems facing the country and the world at large. I believe in the great pool of talent that our youth have and we strive to empower you with knowledge, skills, abilities and the attitude that will enable you to win deals, drive decisions and determine the future.

In a nurturing environment we inspire innovation, encourage entrepreneurship and create a youth capital capable of transforming society. The University has global alliances with highly reputed academic institutions and industrial organizations for collaborative academic and research work as we believe in preparing leaders who can contribute to national and global economies.

Besides academics the University provides excellent physical infrastructure and support to pursue sports, hobbies and co-curricular activities for your holistic growth and development. The University will groom you with skills for lifelong learning and continuous development, inculcate values in you to be a good human being, a responsible citizen who, through your impactful work, will leave ‘footprints on the sands of time’.

As a prospective student, parent or guardian I wish to assure you that if you have the will, our team of distinguished and dedicated faculty will help you take the giant leap from the classroom to the real world and help you realize your dreams.
Welcome to The NorthCap University, a contemporary and innovative multidisciplinary university where individuals are not restricted by the boundaries of a particular discipline. It is dedicated towards imparting high-quality, value-based education, at par with international standards. We empower you with requisite skills to enhance your employability, confident to explore new opportunities and confront challenges in the emerging future. We have developed a collaborative environment conducive to learning, exposure to the best international practices and promotion of innovation and creativity that has enabled the University to be recognized as a premier centre of higher learning.

Our challenge is to help generate ideas that will benefit society and learn to work in domains where you will be valued both for your specialized knowledge as well as for your ability to research, communicate and solve problems. A holistic perspective with the right degree of flexibility is the key driver of our academic policies. The entire course structure is regularly reviewed and updated to keep pace with the fast-changing technology and skills, ensuring international competitiveness. To make an instant connect with the aspiring gen-next in the most effective manner, the University attracts the best minds towards mentoring and guiding so that our graduates are a force to reckon with in the new, interconnected and borderless world of the new millennium.

Our efforts are always focused on creating and developing an environment for innovation and research. We have a talented pool of highly qualified faculty, mentors and guides with significant industry experience to ensure you learn from the best. We have adopted global standards of learning, industry-ready curriculum, technologically advanced learning modules, fructifying placement results with employer satisfaction, locational advantage for strengthening academia-industry linkages and excellent infrastructure and facilities that make NCU a frontrunner in North India. The University is pioneering new ways of using online technologies to enrich the educational experience and is expanding opportunities for learners to become job providers, not just job-seekers.

Besides academics we offer the best facilities for extracurricular activities that provide you with opportunities to develop your talent and skills to full potential and imbibe values that you will need for life. Student-led clubs, social, cultural and sports activities enliven the campus and prepare you to be mentally and physically fit, so necessary in high demanding job profiles. We nurture you to be a good human being and excel in different realms of life and prove your calibre. We inculcate in you a desire to succeed that is far greater than the fear of failure. Let me assure you that whatever programme of study you choose, you can be certain that it will be a life changing experience for you. In your quest for quality education and learning I invite you to be a part of The NorthCap University and experience the excitement of success.
Message from the Vice-Chancellor

Prof. H B Raghavendra
Vice-Chancellor & Professor

It is our pleasure to welcome you to The NorthCap University, one of the premier universities of Delhi-NCR and North India, dedicated to its vision of being known for academic excellence and socially relevant research outcomes. We, at The NorthCap University (NCU) are committed to develop a fraternity of competent professionals of international standards and calibre who are innovative, analytical and independent. The University was accredited in May 2016 by the National Assessment and Accreditation Council (NAAC) for a period of five years i.e. 2016-2021. Accreditation Services for International Colleges (ASIC), UK, reaccredited NCU in its 'Premier University' category, with a ‘Commendable’ grade for the next four years i.e. 2016-2020. The University has been ranked No. 4 Private University in Delhi/NCR and Haryana and placed under 100-150 rank band of National Institutional Ranking Framework (NIRF) by MHRD, Government of India in April 2017. NCU is recognized by the University Grants Commission (UGC) and Bar Council of India (BCI), and several prestigious awards have been conferred on the University in successive national surveys.

Students are our brand ambassadors and for holistic development of our students, the University not only provides a vibrant and positive ambience but a well-equipped library, sports, clubs and extracurricular facilities etc. to facilitate them. The three schools of the University viz., School of Engineering & Technology, School of Management and School of Law, offer a wide range of professional programmes in diverse areas at Undergraduate, Postgraduate and PhD level. Our multidisciplinary programmes are at par with international standards, offering flexibility featured in the curriculum. We constantly update programmes and course content to meet the challenge of grooming professionals and making them industry ready by equipping them with the required technical and soft skills. We offer blended learning by using e-learning with regular classroom learning with special focus on hands-on practical learning. NCU has associations with leading IITs and the students can study various courses conducted by them, use IIT lab facilities through their Virtual Lab platform, take their online tests and earn certificates awarded by them.

We lay strong emphasis on research so that the students gain higher technical and scientific competence, to have an edge over others. A significant part of our University’s overall research is undertaken in collaboration with industry and scientific research and development agencies. The Research, Development and Industrial Liaison (RDIL) Cell, the well-equipped Central Research Facility, the Incubation Centre apart from well-equipped labs and workshops will support the innovative ideas of our budding students and help them materialize into reality. To enhance and support the innovative projects, University provides funds from the Vice-Chancellor’s Innovation Fund, which supports up to Rs 15 lacs per department for projects led by the faculty and Rs 2 lacs per project for student projects. During the reporting year, 9 research projects for a total amount of Rs 2.2 crore have been sanctioned. One DRDO (CARS) project for Rs 10 lakhs has been completed in 2017. In addition to these, 13 research projects amounting to Rs 4.61 crore are in the pipeline.

Since we believe in holistic development, we offer various platforms to showcase talent and creativity at both national and international levels. Our students get opportunities to take part in sports and other activities and have been applauded both nationally and internationally. The students also get a chance to study abroad as our University maintains global partnerships for student exchange programmes with selected top-notch universities that are beacons of good practice internationally.

We attract the best minds towards teaching and research so that our graduates are a force to reckon with in the new, interconnected and borderless world of the new millennium. They are mentored by eminent academics and industry stalwarts who continuously upgrade their knowledge and skills through training and development programmes in India and abroad. Students get their guidance and support as and when they require. Our faculty always guides and motivates the students to participate in research, scholarly and creative activities at all times.

The University has a proud record of evolving efficient, confident and highly knowledgeable technocrats, managers, entrepreneurs and legal minds with a global perspective that can contribute to nation building with a strong adherence to corporate ethics. After graduating from NCU, we support our students in placement in reputed organizations through our School of Professional Attachment. The University also has tie-ups with Professional Assessment Agencies for scientific third party assessment so as to ensure that the students get good placement offers. We have been able to achieve an enviable placement record of over 92% of eligible students, nationally and internationally.

Students find learning at NCU an invigorating experience. My best wishes to all for a challenging and fruitful journey of academic excellence and creativity at The NorthCap University.

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The NorthCap University offers world class learning as well as a holistic student experience to become better individuals at every stage of life. NCU is an ambitious, dynamic and environment friendly university. The high quality of education, visionary leadership, dedicated faculty, industry academia collaboration along with excellent supporting facilities prepare students to accept challenges, seize opportunities and take the lead.

We have moved a long way since we started our journey as a young institution twenty-one years ago, which transformed into a university in 2009. Our programmes in various disciplines of engineering, sciences, law and management are designed and developed to cater to the fast-growing industry sectors in collaboration with industry experts. We use the latest technology, e-learning, online learning tools etc. along with regular teaching with emphasis on practical work and hands-on training to scale up on student experience and learning value. NCU is committed to totally merit based decisions in every aspect of its operations. NCU has active student chapters of reputed professional societies like ASQ, OSA, Enactus and many others so that members get an opportunity to grow, identify their individual talent and groom skills to their full potential. We provide facilities for a plethora of activities, events, symposia etc. to encourage learning beyond the classroom and on graduating offer tremendous opportunities through stellar placements.

The University maintains a high standard of discipline on its campus and hostels and offers a free and congenial atmosphere in a gender-equality environment with a complete ragging-free campus, conducive to learning of the highest order. The revamped website provides the requisite information regarding every aspect of the University such as ongoing courses, expertise of each faculty member, latest news, announcements, achievements etc. of the University, in a user friendly manner. The website and our active presence on social platforms like Twitter, Facebook, Linkedin, Global plus etc. has enhanced our connectivity at the global level. We invite you to be a part of this forward looking university as the years ahead will be the most crucial part of your education that will shape the rest of your life.

Message from the Registrar

Col. Bikram Mohanty (Retd)
Registrar, The NorthCap University
A Premier City University
As we look to the future, one thing is certain – application of knowledge and skills will be a key resource you have to equip yourself with, to be highly sought-after. At this juncture of life, your decision to select the right institution will decide your future and choosing a right career and a right institution is the biggest challenge that you and your parents are facing today. The NorthCap University encourages education that is distinctly interdisciplinary and international. We are proud to be consistently ranked among premier institutions of higher education in North India. If you have the inner passion to excel, not only in the academic field, but also have a desire to give wings to your creative instincts, we offer you the right platform at The NorthCap University. Academic life is full of opportunities that offer mobility in fast growing new-age verticals. Our multidisciplinary programmes are contemporary with flexibility and choices featured in their curriculum design at par with international standards. We constantly update programmes and course content to meet the challenge of grooming professionals with knowledge and skills for the constantly changing requirements of the industry. We offer blended learning by using e-learning with regular classroom learning with emphasis on hands-on training. A real-world experience is a crucial component of our education and training. Our innovative curriculum supports the sustainable development in science, technology, engineering, management and law. Independent and creative thinking is encouraged for people to interact, not just to share information but to create new knowledge. The Vice Chancellor’s Innovation Fund can financially support you in exploring your ideas in live projects. To accelerate research, innovation, quality of teaching-learning and to facilitate student and faculty exchange, NCU has collaborated with leading universities of the world.

Students First
‘Students First’ is the motto and driving force behind all activities at the University. We empower our students to achieve professional and personal success, ready to change the landscape of the future. Our objective is to transform our students into not only competent professionals, but also good human beings. We believe that for a brighter tomorrow the present should be nurtured and guided in the right direction with a healthy spirit. Students are constantly motivated to meet the rigours of academics and in their endeavours they are closely supported and mentored by a strong and progressive team of teachers, peer tutors and members in various statutory and advisory boards. The University has over 70% PhD faculty. We have six Padma Bhushan and Padma Shri awardees and six Bhatnagar awardees associated with the University.

Excellent Placements
With a dedicated School of Professional Attachment we have been able to achieve enviable placement results both nationally and internationally. The University has a tie up with professional assessment agencies for scientific third party employability evaluation that further enhance hiring opportunities. Placements each year are around 92% of eligible students.

Flexible, Choice Based Education
Choose the academic pathway that best suits your interests and strengths, learn from the best academia and industry stalwarts, research using the best facilities, get certified by IITs, earn foreign degrees and finally get placed in your dream organization! That is why you should study at The NorthCap University, an ambience conducive to learning of the highest order.

Great Infrastructure
Centrally air-conditioned excellent academic infrastructure, hi-tech classrooms equipped with state-of-the-art multimedia teaching aids help in creating efficient learning spaces. We have well equipped labs and workshops where you can not only carry out practical training but also indulge in extensive research. Each year the University receives about Rs 1.5 crore for sponsored/collected projects. We maintain close industry relationships so that classroom learning and teaching can be converted into practical training relevant to your future career. Collaborating and sharing resources, processes and systems with other universities and communities have accelerated research, innovation, quality of teaching and learning and the student experience. The floodlit sports field is available to you to play cricket and football apart from other games such as Basketball, Tennis, Volleyball, Netball, Badminton and indoor games like Table Tennis, Chess and Carrom. We have a well-equipped student centre complete with a modern air-conditioned cafeteria.

In close proximity to Delhi, in the industrial hub of Gurugram, The NorthCap University has built on its admirable legacy of over two decades.
Our Academic Advisory Board Members

Mr Analjit Singh
Padma Bhushan
Chairman, Vodafone,
Chairman, Max New York
Life Insurance

Dr Devi Singh
Vice-Chancellor
FLAME University, Pune
Former Director - IIM,
Lucknow

Mr Vikram S Mehta
Chairman,
Brookings India &
Former Chairman,
Shell Companies
in India

Mr Suresh C Rajpal
Chairman & CEO,
Visnova Solutions, Noida
Former President & CEO
Hewlett-Packard (India)

Prof. KL Chopra
Padmashree
Former Director,
IIT Kharagpur,
SS Bhatnagar Awardee

Prof. MK Jain
Ex- Dy. Director
IIT Delhi & Professor of
Mathematics

Prof. TK Datta
Dogra Chair
& Emeritus Professor,
Dept. of Civil
Engineering, IIT, Delhi

Mr Indu Bhaskar
Scientist G & HOD,
Department of Scientific
& Industrial Research,
Team Leader
(TPDU Program), DSIR
New Delhi

Prof. Karmeshu
Honorary Distinguished
Research Professor,
The NorthCap University,
Prof & Dean,
School of Computer &
Systems Sciences,
JNU, New Delhi
SS Bhatnagar Awardee

Mr Ajai Chowdhry
Padma Bhushan
Honorary Adjunct
Professor,
The NorthCap University,
Founder – HCL,
New Delhi

Prof. SK Joshi
Padma Bhushan
Former – DG, CSIR
& Hon. Distinguished
Scientist (CSIR)

Prof. Siraj S Hasan
Distinguished Professor
and former Director,
Indian Institute of
Astrophysics, Bangalore

Prof. AS Brar
Former Vice -Chancellor,
Guru Nanak Dev
University,
Amritsar, Punjab

Prof. Ranbir Singh
Vice -Chancellor
National Law University,
New Delhi
President, AIU

Dr PS Rana
Chairman & MD,
Pathera Developers
Former Chairman & MD,
HUDCO
Our Academic Advisory Board Members

Prof. Kehar Singh
Ex-Dean & Emeritus Fellow, IIT Delhi
SS Bhatnagar Awardee

Dr Krishan Kumar
Executive Advisor, Maruti Automotive Centre for Excellence

Prof. RC Budhani
Professor, IIT Kanpur
Former Director, National Physical Laboratory, New Delhi

Mr Vishnu R Dusad
CEO & MD, Nucleus Software Exports Ltd, Noida

Dr Krishan Lal
DST Ramanna Fellow & Former Director, NPL, New Delhi

Hon’ble Justice M Karpaga Vinayagam
Former Chairperson – Appellate Tribunal for Electricity

Dr Girdhar J Gyani
Director General, Association of Healthcare Providers (India)

Prof. SK Kak
Founder Vice-Chancellor Mahamaya Technical University, Noida

Prof. Pradeep Kumar
Professor, Department of Mechanical & Industrial Engineering IIT, Roorkee

Mr Mangu Singh
Managing Director, DMRC, New Delhi

Prof. PB Sharma
Vice-Chancellor Amity University, Gurugram

Prof. SG Deshmukh
Director ABV IIITM, Gwalior

Mr Bunty Peerbhoy
Director, Maa Group Holdings

Mr Satish Kaura
Padminshree Chairman Samtel Color Ltd

(Formerly ITM University, Gurugram)
Keeping pace with rapid technological advancement, the University has tied up with IBM Career Education and has set up an IBM Lab for Emerging technologies. Besides conducting Faculty Development Programmes, IBM conducts courses for ECE, CSE, MBA students, to give them a cutting edge in their professional courses.

CISCO certification is sought after by IT professionals and greatly improves your prospects if you want to build a career in the industry. The CISCO Networking Academy at the University caters to the huge demand for ICT professionals.

iNurture, a educational solution company in the business of designing and delivering of innovative industrial relevant jobs in the field in Animation and VFX, Information Technology, Mobile Application and Analytics is our Knowledge partner.

American Society of Quality (ASQ) India Ltd: A students’ chapter has been established with The American Society of Quality (ASQ) India Ltd to provide a certificate programme for students. We are the first university in India to be selected by ASQ to form a thriving Students’ Chapter.

Our Knowledge Partners

Partnerships & International Linkages

Besides obtaining recognition by accreditation agencies and statutory bodies, the University has been collaborating to share knowledge and resources with other universities and academic communities throughout the world. This is part of an important strategy to accelerate and sustain success. Our endeavour in this direction has resulted in successfully forging progressive alliances with premier institutions round the globe.

ITB Ireland: The University has an effective MoU in place with ITB Ireland and is collaborating significantly in the mobility of students and faculty. The first students exchange started in September 2011 for a semester abroad programme. Various collaborative schemes for UG and PG students continue to be rolled out.

University of Chester: An MoU with the University of Chester, UK, was signed in 2012. The Chester Business School has over 1500 students with campuses at Chester and Warrington, and has a good reputation at undergraduate and postgraduate-level courses.

NCU students of MTech ECE and CSE are eligible to apply for a Master of Engineering degree in Electronics Systems Engineering and in Software Systems Engineering, respectively. Selected students proceed to University of Regina, Canada after 2 semesters and get a Canadian degree in Master of Engineering.

Michigan Technological University: An MoU with the University of Michigan Technological University Houghton, Michigan, USA was signed in March 2016, to implement the 3+1+1 programme in Computer Science & Engineering.

University of Dayton, Ohio, USA signed a Partnership Agreement to undertake joint collaborative research and for student and faculty exchange. The Agreement was signed in May 2017.
**ISRO**: MoU between ISRO, Dept of Space, Govt. of India, Ahmedabad, and The NorthCap University for IRNSS Navigation Receiver Field Trial and Data Collection that will enhance research and innovation at the University.

**n+i**: The n+i engineering network, which is a consortium of over 70 French Grandes Ecoles (elite engineering institutes), is the largest network in France and offers student exchange programmes under an MoU with NCU.

Students from the School of Law would benefit a great deal by this tie-up with NCU. While doing their BBA-LLB (Hons) course, they would be in a position to add to their professional graph in one of the most sought-after futuristic areas—the field of arbitration.

**Spoken Tutorials IIT Bombay**: An MoU has been signed between Spoken Tutorial Project, IIT Bombay and The NorthCap University. The agreement helps the University in conducting software training programmes in collaboration with IIT Bombay.

**Power Grid Corporation of India Ltd**: An MoU for academic collaboration with Power Grid Corporation of India, Gurugram, a Navratna Public Sector Enterprise and one of the largest transmission lines utilities in the world is in place since December 2013. The collaboration benefits our students in internship and includes management development, research and training programmes.

MoU with American Society of Civil Engineers (ASCE), Reston, Virginia, United States for conducting ASCE’s recorded / on demand webinars (with a local expert present) as well as holding conferences and continuing education activities at the NorthCap University, Gurgaon.
About the University

The NorthCap University (NCU), rebranded itself on 31 August 2015 vide Haryana Government Ordinance No. 2 of 2015, followed by UGC Govt. of India notification dated 26 August 2015. NCU is a unitary university situated in Sector 23-A, Gurugram, Haryana and accredited by the National Assessment and Accreditation Council (NAAC) 2016-2021. It was founded in 1996 by Educate India Society as an Engineering Institute to provide higher education in Engineering and Management. The institute gained the status of a State Private university in the Academic Year 2009-10, under Act No. 25/2009 a by the Legislature of State of Haryana and accorded UGC approval under Section 2(f) of the UGC Act 1956. In a span of a few years, we have grown to be one of the foremost educational institutions in North India. As a testimony of this fact, we have been ranked as ‘The University of the Year 2017’ by the Higher Education Review and among the top 150 universities under National Institutional Ranking Framework (NIRF) by the Ministry of MHRD, GOI.

The University imparts education in undergraduate and postgraduate programmes in engineering, management, sciences and law. It is recognized by various government and regulatory bodies for teaching and awarding degrees. The University is approved by the University Grants Commission (UGC) and recognized by the Bar Council of India (BCI). The University is a member of the Association of Indian Universities (AIU). Aside from being a Member of the American Society for Quality (I) Pvt Ltd, it is accredited by Accreditation Services for International Colleges (ASIC), UK.
Location
The University is located in Sector 23-A, Gurugram, Haryana, which is about 15 Kms from Indira Gandhi International Airport. It is well connected and easily approachable. It is located in a clean and pollution-free environment at about 3 Km from National Highway 8. The University’s campus is spread over 10 acres with a covered area of over 32,000 square metres which amply caters to all its academic and administrative needs. A ‘360º walkthrough’ on our website, www.ncuiindia.edu, will give you a virtual tour of the beautiful laid out campus.

Physical Infrastructure
The University accommodates an excellent academic infrastructure of over 60 classrooms, 18 tutorial rooms, 68 labs, 25 workshops, ample faculty cabins, seminar hall, conference rooms, a 450 seat state-of-the-art auditorium and a double basement parking.

The University has a fully air-conditioned academic infrastructure with round-the-clock power back-up. The spacious classrooms are equipped with modern multi-media teaching aids. It also has a computer centre with nearly 1000 high-end computers and the whole campus is wi-fi enabled. It has a 60 MBPS dedicated leased line, digital and multimedia library and networked computer labs.

The open-air Amphitheatre next to the sports ground is used extensively for various university functions and club activities. The campus provides for a music club, photo club, judo club and the Yukti Social Club. It has sports facilities for nearly all indoor and outdoor sports. The cricket-cum-football ground is arguably one of the finest grounds in the NCR, with floodlight facilities for night sports. An air-conditioned two-storeyed cafeteria, student centre and Incubation Centre covering an area of more than 15,000 sq ft provide a unique experience to faculty and students alike. It has been designed with modern interiors and energy efficient concepts. NCU also has a branch of the Syndicate Bank with an ATM operating from its premises for the convenience of its faculty and students. The University provides hostel facilities to over 200 students. The rooms are well-furnished, and the hostels also have a 24-hour power back-up system, treated water, wi-fi, intercom, indoor sports facilities, a central kitchen, entertainment and recreational facilities, and a bus to convey the students to and from the University. The New Academic Block provides state-of-the-art classrooms, besides area for student activities and faculty rooms.

Environment Friendly
NCU is an environmental friendly institution. A 150 KW rooftop solar PV system with a net metering facility has been installed to provide alternate source of power to the University in line with the State and National objectives of using solar energy. In order to ensure zero wastage of water, we have installed an effective rain water harvesting system as well as sewage and waste water treatment plants. NCU is committed to the green movement and campus-wide initiatives at reducing, reusing and recycling are helping it achieve a green code of living. To check the emission levels of vehicles coming to the University, a Pollution Checking Centre has recently been set up inside the campus. The University is surrounded by lush green gardens and this is the 16th consecutive year when the University has been declared the winner of the HUDA garden competition in Gurugram.

Library and Information Resource Centre
The NorthCap University Library & Information Resource Centre (LIRC) is among one of the best Private University Libraries of Delhi-NCR. It has a collection of over 100,000 volumes in all areas of engineering, law, sciences and management and provides its users the latest and modern services like online library access to online journals and e-books, WEBOPAC facility, federated search engine ‘KNIMBUS’ which offers single window access to all subscribed resources.

LIRC has a dedicated Multimedia Library where computers have been installed for online access to international journals from various databases like ABI/INFORM, American Society for Civil Engineers (ASCE), American Society for Mechanical Engineers (ASME), Proquest engineering collection, Manupatra and Lexis Nexis for Law students, Sage online journals and E-Brary (e-books database) having 1,34,000 e-books. All these resources have IP based access and are accessible from anywhere, through remote access facility.
The University has implemented NAD (National Academic Depository) facility for its students. Degree certificates awarded to students are uploaded in their Digital Locker created by Government approved Depository Company. Our University is amongst the few which has implemented this facility for students.

Virtual Labs

NCU is a nodal centre for Virtual Labs, an initiative of the Ministry of Human Resource Development under the National Mission on Education through Information and Communications Technology, wherein eight IITs are currently involved. The University utilizes the facilities available at the IIT labs through remote triggering.

Learning Management System

NCU offers an innovative learning system as a supplement to classroom teaching - an e-learning portal, the Learning Management System (LMS) which provides students with online access to the course content offered at the University and its important academic information including lecture notes, recommended reading, tutorial sheets and assignments. We want students to use this portal to prepare themselves before coming to the class, so as to have a better understanding of complex concepts.

Faculty

In our quest to impart the highest quality education to our students, we have taken immense pains to bring together a team of high calibre faculty members, selected through a stringent screening process. The NorthCap University's faculty is ranked highly, as a large number of them come with a rich experience of having worked in some of India's most prestigious institutions such as the IITs and IIMs. They combine exemplary teaching skills with academic research and consulting practices and work hard to integrate classroom studies with the needs of the industry, making your educational experience relevant and timely. The criteria for appointment, retention, tenure and promotion are designed to attract educationists of the highest calibre, who continuously strive to enhance their knowledge and teaching effectiveness.

With over 170 faculty members on board, with a vast range of teaching experience in national and international institutions, we have a productive academic leadership, including emeritus professors and distinguished professionals from diverse fields. The qualifications for various faculty positions comply or exceed the prescribed standards of the UGC and the BCI. 70% faculty members are PhDs. Many of them are qualified from premier academic institutions like the IITs. A number of senior faculty members will teach you in the first-year so as to give you a strong foundation while initiating you into various programmes.

Faculty Mentoring Scheme

Besides the large in-house fraternity, we have a rich panel of eminent professors and industry experts as visiting faculty. We also invite distinguished professionals and academics to mentor our faculty in a nurturing environment, to enrich and enhance their expertise under the Faculty Mentoring scheme. In addition to regular classroom teaching, renowned experts in various fields are also invited from time to time to deliver Guest Lectures and conduct workshops so that you get the opportunity to interact with experts and get real-life exposure.

Whilst the principal responsibility of the faculty
is teaching, members are also encouraged to serve as consultants to other organizations from time to time, so as to help keep abreast with the latest trends in the environment where our students will be absorbed after graduating. Their qualifications and experience, as well as the superior teacher-student ratio contribute to the quality of education at the University. Our faculty members are sensitive to your academic and developmental needs and easily accessible and very concerned about your welfare and development.

**Student Counselling**

To make you comfortable and help you easily settle down in the University, a faculty mentor will help you in a nurturing, informal yet intense relationship just as in the Guru Shishya parampara. Mentors will guide and counsel you, whenever you require, throughout your stay at the University.

**Learning @ NCU**

We ceaselessly strive to pioneer the learning processes to bring them at par with international standards. Curricula are constantly updated to keep abreast with industry trends and to ignite your mind with innovative ideas that prepare you to meet global challenges in the future. You will be exposed to real-life applications and industry interactions for practical understanding and learning.

Being a multidisciplinary university, we have taken great pains to ensure that the courses are designed to not only help you understand the core courses but also their applications in other streams. In this manner, with better assimilation, you will acquire broad based knowledge. Inculcating the desire for excellence and accomplishment through integrity, honesty and achievement is of paramount importance. To achieve excellence in research we encourage originality of ideas and approaching a subject with an open mind. We want you to innovate and conduct research in a collaborative and supportive environment. Research is encouraged not only in all the Schools but in multidisciplinary groups as well. Lastly you will acquire basic skills of at least one foreign language (French, German & Spanish) in all UG programmes of the University.

**Programme Educational Objectives and Outcomes (PEO and POs)**

In line with the Vision, Core Values and Quality Policy of NCU, Programme Educational Objectives and Outcomes (PEO and POs) have been framed for our UG and PG programmes and rigorously followed.

**Online courses**

NCU offers online courses in the areas of Computer Science & Engineering (Cloud computing concept/ software security (University - Maryland/Illinois)), Electrical, Electronics & Communication Engineering (Introduction to LINUX (Linux foundation, US) and other Engineering disciplines. In addition, Massive Online and Open Courses (MOOCs) launched by the Ministry of Human Resources Development (MHRD), GOI, and University Grants Commission (UGC) covering diverse disciplines are also available at NCU.

**Online tests**

There are two online tests per course per semester that provide a simplified evaluation system adding to your academic efficiency and building an online culture at NCU. In addition, third part assessment tests are organized by the University which are compulsory.

**Relative Grading and Moderation**

The University follows the rationalized relative grading system across all disciplines for fair and balanced evaluation of students. The quality bar for distinction is 8.5 and above CGPA on a 10-point scale and all courses should have been passed in the first attempt. For all academic rules and regulations visit the Dean office and refer to relevant documents. Secondly, being a centre for higher learning students should be prepared to attend the University six days a week (any six days) for academic and/or co-curricular activities.

**Attendance Rules**

A student is expected to attend all lectures, tutorials, practical classes and VA courses. However to account for illness, and contingencies of a serious and unavoidable nature, the attendance requirement for a student to make him/her eligible to attend the Major Test is 70% and minimum 60% attendance for eligibility to appear in Minor 2 tests. This requirement will not be relaxed under any circumstances whatsoever.

A student not satisfying the minimum attendance requirement in a particular course, will be detained in that course.

**Interactive teaching-learning and self-learning**

We follow a system of prior assignments and/or self-study. You have to self-prepare certain topics before class or tutorials, based on which you will be questioned or quizzed. For this we encourage you to use NPTEL (the National Programme on Technology Enhanced Learning) and UGC MOOCs as a resource for supplementary reading material. This system helps us to continuously improve our teaching-learning systems and processes.

**Special Lecture Series**

Expert talks are delivered by invited experts from outside as well as our senior faculty members on various topics so that you benefit from the expertise of experienced speakers.

**Thought Lab**

The University has established a ‘Thought Lab’ with the aim of developing a positive attitude, reduce negative energy, stress and improve overall development of students. Channelizing thoughts effectively will improve your experience while studying at NCU.

**Value Added Courses**

To sharpen your competitive skills and enhance your employability and make you industry ready, we have comprehensive value-added
Development Groups. We encourage and include the Literary Society, Music Society, Drama and Dance Society, Photography Club, Social Service Society, Sports Society and Self Development Groups. We encourage and provide support, guidance and facilities to our students to showcase their skills and talent.

**Accommodation**

You can get comfortable, secure, safe and healthy accommodation in NCU's hostels. There are separate hostels for boys and girls with limited capacity to accommodate students. We provide high-quality accommodation, on a shared basis, with clean and hygienic dining facilities. The rooms are well furnished, with a 24-hour power backup, treated water, Wi-Fi, intercom, indoor sports, entertainment and recreational facilities and a bus for your conveyance to and from the University. All hostels are provided with security guards round the clock. Accommodation is allotted on a first-come first serve basis, as a limited number of seats are available.

If we are unable to accommodate you in the University's hostels, you can find alternative lodging nearby. About 30 paying guest facilities in close proximity to the campus are available for which you will need to exercise your own options. NCU plays only a limited role as a facilitator, providing a ready reckoner of PG accommodation availability in the vicinity of the campus, and has absolutely no other interest, role or responsibility to discharge other than facilitate your stay.

**Specially-abled Students**

Resources for specially-abled students are part of NCU's commitment to help all such students achieve their academic potential. The University welcomes applications from students with special needs and assures them that it will provide access to all programmes for which they enrol. Special effort is made to provide opportunities for participation in extracurricular activities, and to encourage their personal development and independence. Compliance with the guidelines for students with disabilities is ensured by the University.

**Equal Opportunities**

At NCU, we are committed to equality of opportunity to all sections of society. We welcome applications from all irrespective of caste, creed, language, gender, nationality or religion, with a potential to succeed in higher education and provide full protection and rights of participation to Persons with Disabilities as per the PWD Act of 2016.

NCU is a ragging free campus and provides a safe environment particularly to girl students.
The NorthCap University continues to nurture its ambition to be known globally for learning innovations, academic excellence and socially relevant research outcomes. It is driven by an ambition to be in the top of the league by embracing global best practices and championing the highest ethical standards.

- The University ranked in rank band 101 to 150 in the NIRF Ranking released on 3rd April 2017 by MHRD.

- The NorthCap University was ranked No. 1 Engineering College in Haryana and No 6 in All India Top Engineering Colleges of Eminence in the rankings of CSR-GHRDC, July 2017.

- The University has been ranked No. 2 in Delhi/NCR and No. 58 All India in a survey of India's Top 100 Professional Colleges by Outlook in their June 2017 issue.

- The NorthCap University was ranked among the Top 100 Management Schools in India, including IIMs, by Outlook ‘India’s Best B-Schools Survey 2017’ published in Outlook news magazine October 2017 issue.

- Recognized as the University of the Year-2017 for Value Based Education by Higher Education Review in their Dec 2017 issue.

- NCU’s School of Law has been recognized as the Best Emerging Law School in India in the survey conducted by Careers 360 in January 2017.

- The School of Engineering and Technology of The NorthCap University was ranked in ‘AAA’ category in ‘India’s Best Engineering Colleges' survey conducted by Careers 360 published in April 2017.

- NCU’s School of Law has been awarded ‘3rd Rank in the Northern Region’ and ‘8th Rank amongst Top Law Schools of Eminence All India’ in the National Law Schools Survey 2017 conducted by Global Human Resource Development Centre (GHRDC), New Delhi.
At the NorthCap University, we consider that unique capabilities lie in all individuals and each day we work to ensure that capability to be accomplished. Our students work side by side with their peers and with renowned faculty and researchers. Selected students study abroad, participate in internships, conduct research, lead student organizations and volunteer in communities close to home and around the world. In pursuance of this objective, the University offers high-quality courses at the undergraduate and postgraduate levels. The following programmes were offered for the session 2018-19:

I. SCHOOL OF ENGINEERING & TECHNOLOGY

A. BTech
   i. Computer Science and Engineering (CSE)
   ii. Electronics and Communication Engineering (ECE)
   iii. Mechanical Engineering (ME)
   iv. Civil Engineering (CE)

B. MTech
   Degree in Computer Science & Engineering with specialization in:
   • Cyber Security or
   • Data Science
   Degree in Electronics & Communication Engineering with specialization in:
   • Communication Engineering or
   • VLSI Design
   Degree in Mechanical Engineering with specialization in:
   • Thermal Engineering or
   • Mechanical Engineering Design
   Degree in Civil Engineering with specialization in:
   • Structural Engineering or
   • Construction Engineering & Management

C. BSc Mathematics (Hons)
D. BSc Physics (Hons)
E. MSc Mathematics

II. SCHOOL OF MANAGEMENT

- BBA
- BA Eco (Hons)
- BCom (Hons)
- MBA

III. SCHOOL OF LAW

- BBA-LLB (Hons)
- LLM

IV. PhD in Engineering, Management, Law, Sciences & English
School of Engineering and Technology

Dr Ravindra Ojha,
PhD, NCU
ME (Industrial Engineering & Management), Asian Institute of Technology, Bangkok
Btech, Mechanical Engineering, Regional Engineering College, Warangal (Gold Medallist)
Director, School of Engineering and Technology

Message from the Director

Engineering plays a critical role in the economic growth of a nation and the School of Engineering and Technology (SOET) at NCU aims to be at the forefront by producing highly skilled professionals ready to seize every opportunity and meet the huge demand coming up in the near future particularly from Make in India, Skilling India, Smart Cities, Digital India, Zero Defect Zero Effect drive by the Government. Our Btech / MTech programmes especially aim at providing a strong foundation in theoretical, practical, design aspects of engineering and socially relevant research outcomes. The idea is not just to teach a specific technology, but an interdisciplinary approach to problem solving. The PhD programme focuses on research excellence which is so much needed in the current dynamic world.

The research areas are very topical and socially relevant.

The University constantly strives to reinvent itself to stay ahead of the curve. Industry-validated programmes bridge the divide between education and industry and give our students a competitive edge in securing bright careers. We see ourselves as providing a link between academia and industry. Less emphasis is placed on transmitting information and more on developing students’ skills through rigorous summer internships, live industry based major projects and interactions with industry experts. The University is situated right in the heart of the industrial hub of the city which gives our students easy access to corporate internships, interactions and interesting job opportunities. We ensure an engaging, participatory and application based learning experience to our students.

The contribution by societies such as ASQ, SAE, SPIE, ISHRAE and many more have been providing rich experience to the students through industry connects. Our University is committed to making the students’ educational experience multifaceted and holistic, an education system that is industry-relevant and entrepreneurship-oriented but above all ensures that our youth are responsible citizens who work for the betterment of society. I am confident that our tech graduates will be ready to meet future challenges and will not only be offered higher compensation but will also be offered greater job variety.
The School of Engineering and Technology (SOET) aims to be at the forefront by producing highly skilled technocrats ready to seize every opportunity and lead from the front. SOET with its five academic departments of **Applied Sciences, Civil & Environmental Engineering, Computer Science & Engineering, Electronics & Communication Engineering and Mechanical Engineering** forms the largest component of the University’s academic arena.

Every programme blends critical thinking and analysis with innovation, application and leadership qualities. We promote active learning in the classroom and you will learn by carrying out experiments and live projects. We encourage self-learning through IT enabled courses wherein self-study topics are added to each course and reference websites for further study are included, as necessary. We lay strong emphasis on academic flexibility and focus on internships and major projects. Each student, after second and third year compulsorily goes through the rigours of summer internships as we believe that practical/hands-on learning is an intrinsic part of theory. After graduating from SOET you will be ready to take on the wide ranging changes taking place in technology, nationally and internationally.

**Outcome based learning**

Following global best practices the School follows the Outcome Based Education system that will prepare you for the future and for the constant change which is inevitable in our society. We define educational objectives and outcomes at both the course and programme levels which we update periodically with the help of inputs from faculty and feedbacks from all stakeholders. Good teaching methodology, fair and reliable assessment and continuous feedbacks form a significant part of our system. The major enablers for improving our teaching learning processes and the curriculum are our students’ placements, their programme specific educational outcomes, higher educational pursuits and entrepreneurship success rate.

**Industry-Academia collaboration**

**Delta Power Solutions India Pvt Ltd**, to develop and execute education and research projects, promote development of syllabi and activities that support research and development through work-integrated learning programmes – Cooperative Education. The Partnership Agreement was signed in January 2017.

**Beijing Wave Spectrum Science & Technology Co. Ltd.** China has set up a multidisciplinary Vibration Lab at NCU with an approximate cost of USD $60,000 (INR 40 lakhs) dedicated to research and development of Vibration Technology. NCU students are offered jobs and are working in China.

**Mitsubishi Electric India Pvt Ltd** has provided training equipment for students and faculty worth Rs 40 lakhs and conducts workshops, seminars and training programmes for students.

**IBM** is running courses in the most promising areas of the future.

**AWS Educate** is training students on real Cloud environment. It is providing a grant of USD $100 AWS credits to each student, access to free and discounted AWS training resources, access to free Online Labs and online and in-person collaboration and networking opportunities to the students to help build an exceptionally skilled workforce for the Cloud age.

**M/s. G-Eng Advisory Services Pvt Ltd** to enhance industry engagement for internships, placements and live projects.
**IIT Certifications**

- You can earn IIT Madras certificates for their QEEE programme (Quality Enhancement in Engineering Education) as several of these courses are running successfully at the University. The programme offers live classes, course pack, live labs on engineering courses such as Processor design, Digital Electronics, Electromagnetic Theory, Signals and Systems, Control system etc.

- IIT Bombay certifies for training in Free Open Source Software (FOSS) through Spoken Tutorials software project in various domains such as FOCP and C, OOPS and DBMS, Software Engineering etc.

We offer you the facility of gaining remote access to the Virtual Labs at IIT Delhi. Expert teams from IIT Delhi will train you in this.

**Online Courses offered**

To broaden your horizon and give international exposure we offer online courses from various universities across the world, which include MIT, Harvard, UC Berkeley and University of Texas. You may enroll in these courses along with a faculty mentor and will be evaluated both online and by the mentor at the University level. Suitable number of credits will be allotted to you for successful completion of the courses as per departmental norms.

Through the Learning Management System (LMS) you can get online access to the course content offered at the University and to important academic information including lecture notes, recommended reading, tutorial sheets and assignments from this portal.

In addition, Massive Online and Open Courses (MOOCs) launched by the Ministry of Human Resources Development (MHRD), GOI, and University Grants Commission (UGC) covering diverse disciplines are also available at NCU.

**Student Exchange Programme with Foreign universities**

- Michigan Technological University, USA for the 3+1+1 programme wherein selected BTech students can complete their fourth year from MTU.

- University of Regina, Canada where selected students can proceed after two semesters and get a Canadian degree in Master of Engineering.

- ITB, Dublin, Ireland for semester abroad for undergraduate and postgraduate students.

- University of Dayton, Ohio, USA to undertake joint collaborative research and for student and faculty exchange.

**Research**

The Central Research Facility (CRF) at the University provides the latest and advanced analytical instruments for research in the areas of Physics, Chemistry, Engineering and interdisciplinary sciences at one central place. The recently commissioned CRDI engine and the Vibration Lab in the Dept of Mechanical Engineering have opened up avenues for promising projects and research. A significant part of NCU’s overall research is undertaken in collaboration with business/industry partners. NCU itself also supports research students and provides related funding for equipment through the Vice- Chancellor’s Innovation Fund and also awards Best Project Awards to innovative and socially relevant projects.

Recently an MoU has been signed between ISRO, Dept of Space, Govt. of India, Ahmedabad, and The NorthCap University for IRNSS Navigation Receiver Field Trial and Data Collection that will enhance research and innovation at the University.

**American Society for Quality (ASQ) Student Chapter**

At NCU you will also get high end training programmes of ASQ (I), a leading authority on quality in all fields, organizations, and industries. These programmes lead to certifications which are considered a universal benchmark. NCU is the first university in India to be selected by ASQ to form a Student Chapter and usher in world-class processes in every part of academic and professional life that will objectively enhance your profile at the time of placements.

**Faculty**

The School is proud of having a team of highly qualified, experienced and dedicated faculty whom you can approach at all times. Most of them are PhDs or pursuing PhDs. Some of the most renowned academicians, researchers and industry stalwarts in the country are associated with us as Faculty Mentors for the academic grooming of our faculty and to further enhance their effectiveness as teachers, researchers and individuals in all spheres of life. All faculty members continuously upgrade their knowledge and relevant skills through advanced trainings, Faculty Development Programmes and Externships and are engaged in research activities in interdisciplinary fields.
Peer Tutor Scheme
Following ‘Best Practices’ in leading international universities wherein along with the scheduled teaching by professors various kinds of supplementary tutoring and academic skill development support outside the classroom are also available to all students we also have ‘Peer Tutors’. Through this initiative our meritorious, talented and highly capable students are recognized and rewarded and they use their skills to help weaker students, particularly in the first and second years of UG programmes. Peer Tutors guide and support, empower and encourage, within an interactive peer learning context but do not substitute for classroom teaching or regular faculty.

GATE Preparation
We encourage and prepare you to compete in the GATE exam conducted by IITs which is considered the national benchmark for demonstrating merit at the national level. We reimburse GATE application fee if you qualify. All students of BTech are required to appear for the GATE exam.

Industry Readiness
The University ensures that all students are put through the rigours of an intensive industry training programme to make them work ready.

Third Party Assessment
NCU has taken a new initiative to facilitate evaluation of students' employment readiness and gap analysis by outsourcing it to companies who do third party assessments for graduating students, on behalf of hiring companies. Many universities and institutions such as IIT Kharagpur, IIT Guwahati, IIT Roorkee, IIIT Delhi, NIT Delhi and some private universities are on the board of such assessment companies.

Placement Portal
The complete working of the School of Professional Attachment (SPA) is automated. A placement portal is used as a tool for all communication with students:
- Uploading student resumes
- Posting the company profile and job profile of visiting employer companies
- Accepting student nominations for the company
- Posting schedule of on campus placement drives
- List of successfully selected students
- Issue of ‘No Objection Certificate’ to students for joining industry internship
- Schedule of invited talks by industry experts

Entrepreneurship and Incubation
Education plays a crucial and considerable role in developing entrepreneurial activity of students. Individual capacities including personal traits are often considered to be the key drivers of success for business startups. The University provides valuable support to budding students to become entrepreneurs. In this direction 60 students of our University took part in the Startup Weekend programme held under the aegis of the Government of Haryana and brought laurels to the University by bagging the First and Third position at the State level. The Incubation Centre (MJCEI) at the University has created an environment for research and innovation, especially for software products and apps followed by incubation for commercialization. We hand-hold our students who create innovative projects with commercial viability.
Message from the HoD

Welcome to the Department of Electrical, Electronics and Communication Engineering (EECE), a vibrant branch of engineering that has changed the world in which we live and work. It is poised to continue making important contributions to key issues facing society in areas such as energy, health, computing, networked communications, environmental monitoring, information security etc. Our BTech and MTech programmes aim at providing a strong foundation in theoretical, practical and design aspects of engineering. You will learn core fundamentals and expand your horizon in the emerging areas of technology and their applications through new programmes particularly at the post graduate level.

Our ECE engineering graduates learn to work in teams with other specialists to design, fabricate, produce, test and supervise the manufacturing of complex products and systems and are sought after not only by the electronics and telecom industry but also by computer and IT industries. We follow practical oriented learning practices that enhance your employability and help you to be readily placed in top companies. We develop in you broader expertise and diversified skills to become a successful technocrat in a rapidly changing global environment.

The approach of the Department is to make the learning process interesting and participative with experiential learning and strong emphasis on practical education, with exposure to real time scenarios through strong industry interface. The Department is provided with sufficient resources to meet these objectives. In addition to competent, well qualified and experienced faculty, the labs are well equipped, well-maintained and regularly modernized with latest equipment and industry standard software tools. Independent project work by students is highly encouraged. Faculty members update their knowledge base through regular training, externships, faculty development programmes and research activity. The Department organizes seminars, workshops and training programmes to give you exposure to new developments in various fields of Electronics & Communication Engineering.

We ensure your holistic development through initiatives like innovative curricula, well planned curricular and extracurricular activities, numerous outreach activities, supplementary learning in tune with industry requirements, personality development programmes and exposure to the best available resources.

We will equip you with the capacity to work effectively and collaboratively to solve problems which continue to grow more complex, defy disciplinary borders and will prepare you to be a twenty-first century leader. Come and join our highly professional team of faculty and students and experience the joys of innovative learning and research in emerging technologies for a rewarding career.

The vision of the Department is ‘To be known in the area of Electrical, Electronics and Communication Engineering as a department with unending quest for learning innovations, academic excellence and socially relevant quality research outcomes of internationally recognized standards; emerge as a preferred destination for students, faculty, employers and collaborators’.

Dr Sharda Vashisth
PhD, Banasthali University
MTech, Rajasthan Vidyapeeth
Associate Professor & Head, Dept of EECE
Our Faculty Team

The Department has distinguished faculty members from the IITs, NITs and other leading institutes as well as from industry background. Most of the faculty members are PhDs and have published a large number of research papers and many have written textbooks which are widely used in universities. The faculty members are often invited to deliver guest lectures by other organizations, chair technical conference sessions and engage in other outreach activities. Year after year faculty members of the Dept of EECE have received the ‘Best Teacher Award’. The faculty development and quality improvement programmes regularly hone teaching skills of our faculty.

State-of-the-art Laboratories

The Department’s laboratories have the latest equipment, instruments, kits and software tools and are constantly upgraded to match the requirements of the new curricula. Advanced level optical link simulators, DSP and FPGA kits and PCB fabrication facility will take your laboratory experience to a whole new level. Latest software packages including KEIL, MATLAB, Optisystem, Xilinx ISE, ModelSIM, Qualnet, Optisim, Cadence, Tanner EDA, PSPICE (ORCAD), OPNET, MASM, LABVIEW, UMPS, NS-2 and CST will provide you the latest project and research tools. Virtual Labs, in collaboration with IIT Delhi, have enriched and enhanced practical involvement.

Project Labs

The Department focuses on learning by doing and on innovative projects which you can develop at various stages during your stay at NCU. Minor projects are developed during first year in-house training; fifth semester and major projects are developed in the final year of the BTech programme. For M Tech programmes you will develop a minor project during the second semester and take dissertation work during third and fourth semesters. These minor projects, major projects and dissertation work are supported through well-equipped project labs with industry benchmarked software packages. The labs have different sections where you can develop your hardware, perform simulations or develop software programmes.

Research @ Department of EECE

Practical orientation and developing hardware and software prototypes through various projects help in building better engineers. The Department will help you to understand the methodology of converting your projects into finished marketable products. We encourage you to work on industrial sponsored/collaborated projects as some of our students have been greatly benefitted from such collaborations. A few entrepreneurial projects are selected for funding by MSMEs and Best project awards are given to outstanding projects.

The Department has a large number of postgraduate students and PhD research scholars who under the guidance of our distinguished faculty are engaged in research in new and unexplored technological areas. Some of our innovative projects are in the process of being patented. The Department has several research publications in reputed indexed journals to its credit.

Departmental Magazine

You can contribute to the Department’s multidimensional biannual magazine ‘Livewire’. Its readership is not just amongst engineering professionals but also extends to different disciplines. It provides a platform to share and express views on various technical and non-technical topics. The new segment called the ‘coffee section’ has puzzles, self-composed poems, short stories and much more. Livewire conducts various events to promote the art of photography. You may choose to promote literature by covering the literary events of various societies at NCU.

Professional Societies

The Department of EECE is an effective member of various professional societies like The Institution of Electrical and Electronics Engineers (IEEE), American Society of Quality (ASQ), IETE etc. The Department has NCU-IEEE-Firware, an active IEEE student chapter. The International Society of Optics and Photonics (SPIE) student chapter is another EECE professional society run jointly with the Department of Applied Sciences. It is advancing an interdisciplinary approach to the science and application of light. You can actively participate in their activities which are organized regularly. The Society of Electronics Engineers (SEE) is another departmental professional society. All students of the Department are members of this society. It aims to develop your abilities in technical as well as non-technical fields. The Society arranges many events and activities such as educational tours, technical presentations, seminars, lecture series, group discussions, quizzes, debates, essay writing, brain teasers, technical film shows etc.
throughout the year. You will also get the opportunity to participate in the activities organized by the hobby clubs of the Department, namely the Electronics Club and the English Club-Illuminati.

**Industry Liaison**

Close interaction with the industry is maintained by the Department at all levels of academic activity including curriculum design which is reviewed by relevant industry experts, classroom learning supplemented through guest lectures, technical workshops by industry experts, student project work, industrial visits and summer internships through industry association. The Department has industry linkages with Mentor Graphics and collaboration with Power Grid Corporation of India Ltd, a prestigious Govt of India Undertaking for collaboration in a number of areas of mutual interest. The Department has Partnership Agreements with industries like Ericsson and Nokia Siemens Networks (NSN) for training, certification and placement of our Final-year students.

**Value Added Programmes**

For your all round development and enhancing your employability the Department lays great emphasis on supplementary courses in soft skills and personality development. These value added courses also include many computer and IT related courses including programming languages like Linux, Java, Python, DBMS, mobile apps design, Android, robotics, cloud computing and others, as recommended by the industry from time to time.

**Spoken Tutorials with IIT Bombay**

NCU has collaboration with IIT Bombay for the ‘Spoken Tutorial Program’ sponsored by MHRD, Govt of India. Under the programme, IIT Bombay offers courses in various software training programmes such as Linux, Python, Scilab, QCAD, C++ which you can avail free of cost. These are typically, one semester courses conducted through webinars/self-learning materials and on successful completion you will be certified by IIT Bombay. These courses are beyond the regular curriculum.

**QEEE programme of IIT Madras**

NCU has an agreement with IIT Madras for the QEEE programme (Quality Enhancement in Engineering Education) under which learning of various subjects is supplemented by special lectures by professors from IITs. This provides you opportunity to get exposure to renowned experts. On completion of these programmes you will be certified by IIT Madras. NCU bagged the highest status i.e. ‘QEEE Partner Status’ with IIT Madras in 2017.

**Virtual Labs from IIT Delhi**

The Dept has Partnership Agreement with IIT Delhi for remote access to IIT lab facilities through their Virtual Lab platform. Virtual lab experiments of IITs have been integrated as part of the curriculum in many subjects. You will be trained to use this platform through regular sessions by expert teams from IIT Delhi.

**Collaboration with Mitsubishi and Delta Electronics**

Our association with Mitsubishi Electric Private Ltd, Gurugram provides you training for proper integration of Mitsubishi PLC kits using HMI’s in laboratory experiments for various courses at NCU and participation in various events organized by MEL.

Similarly an MoU with Delta Electronics Ltd, a multi-billion dollar global company and the world’s leading producer of power supplies, will provide you training and help develop and execute research projects through work-integrated learning programmes.

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**USPs of the EECE Dept**

- Nearly 100% Campus Placement
- Well qualified and Experienced Faculty
- Latest and industry oriented Curriculum
- Outcome-based education with beyond the curriculum activities
- Research in diverse areas
- Strong connect with Alumni and industry
Why opt for BTech in Electronics & Communication Engineering?

The BTech (ECE) programme is unique as it is designed to ensure that the content of the programme is regularly aligned to the needs of the industry. With the advancements in telecom technology like 3G/4G, future 5G mobile systems, Internet of Things (IoT) and the smartphones becoming minicomputers, you as a telecom engineering graduate of today will get sound knowledge of software and computer subjects like C++, Java, DBMS, Data Structures, Cloud computing, mobile apps, big data, IoT, cyber security and so on. In addition to these subjects you will also get good knowledge of core electronics and communication engineering subjects.

We will prepare you not only for employment in the electronics and telecom industry but also in the computer and IT industry which will be a distinct advantage as compared to all other branches of engineering.

The ambience in the Department is disciplined, professional and conducive to learning, creativity and innovation and supportive of initiatives both at the student and faculty levels.

 Relatives of our BTech Programme

- Nearly 100% campus placement of all eligible students. Many students are pursuing higher studies in premier Indian and foreign universities and some have also successfully set up their own enterprise.

- A large group of well qualified faculty with diverse experience in academics and industry and actively involved in research in emerging areas

- MoUs and alliances with top end companies and universities.

- Curriculums comparable with those of the best universities and regularly upgraded/aligned with industry requirements. A curriculum with a mix of electronics & communication engineering courses and offering cutting edge industry oriented courses to enhance the employability of our students both in electronics and telecom industry as well as in computer and IT industry.

- Specialized and flexible courses for students to gain command in the areas of their interest.

- Outcome based education supplemented with beyond-the-curriculum training in industry-focused domains

- Emphasis on intensive internships, industry-based projects, guest lectures by eminent experts on latest technologies and other outreach activities

- Holistic development of students with course in Personality Development and other soft skills to provide an edge in placements

- Strong focus on practical oriented education with a large number of well-equipped laboratories including exclusive project labs supplemented with e-learning programmes promoted by various IITs and supported by excellent infrastructure like modern classrooms, well-equipped library etc.

- Socially relevant projects leading to research publications and patents.

Towards the end of your graduation, you will be a professional possessing a balanced mix of technical knowledge, right attitude and preparedness to face challenges and ample opportunities awaiting you through campus placements to succeed in your chosen career.

MTech programmes in ECE & VLSI Design

The curricula and syllabi of MTech programmes have been designed and reviewed by top academic and industry experts from IIT and industry and comparable with the best in the country. The programmes are conducted by well qualified and experienced faculty with distinguished track record.

Our MTech (VLSI Design) programme has drawn the attention of top VLSI industries and many of our students have been hired in these industries at very attractive packages. MTech (ECE) students have also done very well in teaching and industry careers.

Regarding placements, almost all students who have passed out in earlier years are well placed. Many of them opted for teaching and are working in well-known engineering institutions but most of them have gone for industry jobs with very good packages. The Dept of EECE as well as the central placement cell (SPA) at NCU extend all possible help to M Tech students in finding suitable placements.

Come, be part of this enthusiastic professional team and experience the joys of learning with excellent rewards.
Placements

Students graduating from the Dept of EECE enjoy the best of both the worlds in terms of campus placements as they not only have placement opportunities in well-known electronics and communication engineering companies such as Mentor Graphics, Cadence, Samsung, Ericsson, Orange, Airtel, Qualcomm etc. but also in premium computer software and information technology companies like TCS, Delloite, IBM and the list goes on. This is evident by the nearly 100% placement record of ECE graduates year after year for the last 15 years at very attractive annual packages, unmatched by any other discipline. Many of our students are doing higher studies in reputed US, European, Canadian and Indian Universities. Some of our students have turned successful entrepreneurs and have set up their own thriving ventures.

Success Stories

Himanshu Sharma
SNPS
(MTech VLSI Design Class of 2017)

“Being a part of M.Tech programme in VLSI at NCU, is a life changing event for me. What is most appreciable is that the faculties are motivators, enablers to new technical skills and always supportive. The labs are equipped with all latest Cadence tools which has enabled me to do practicals and learn in a better way. The most important part of the programme were the presentations on every topics every topic every week. Just do the M.Tech programme here in NCU and change your Life. Thank you NCU faculty for your great support and technical guidance. Thanks NCU.

Shikha Sharma
Synopsys
(MTech VLSI Design Class of 2016)

I started my career as an intern at Synopsys in September 2016 and I got converted in August 2017 into a full time employee with a salary package of 12 L.P.A. I am working as an R & D Engineer in emulation domain. My Success Mantra is “There is no substitute for hard work.” I am thankful to The NorthCap Univesity for all the support and guidance. The thing that inspired me the most was the learning and working environment at the NorthCap University. The hands on learning regarding different tools of Cadence like Virtuoso, Encounter, etc. gave me the practical approach to learn everything right from the beginning, which helped me alot while preparing for my interviews. One important thing I want to mention here for all those who have high aims in life - To get what you want you need to first plan and manage you time in such a way that you are able to do everything including studies, interview preparations, having fun. Following this, one can also notice an increase in his/her efficiency. All the very best to everyone.

Thanks to the strong placement support at NCU, I got a Rs 14 lakh package. The whole MTech program is industry oriented. Regular workshops, seminars, and interactive sessions at NCU significantly add to our learning experience.

Pulkit Bhatnagar
Apple California
(BTech ECE Class of 2012)

It all started almost a decade ago in 2008 when I joined Institute of Technology & Management (ITM), Gurgaon (now NCU) for undergraduate study in Electronics & Communication Engineering. The University provided access to highly qualified faculty, state-of art lab facilities and campus. The faculty and staff were always supportive and provided help and guidance concerning not only academics but also extracurricular activities and projects. I would specially like to mention the efforts of the VLSI group at ITM for motivating us and imparting essential skills needed to explore the field of hardware design. I got an opportunity to work with STMicroelectronics and Synopsys after I graduated from ITM. Even after I graduated I was in constant touch with VLSI group and other faculty members. I finally ended up joining one of the top schools in the US, University of California at San Diego to pursue Master’s degree in Computer Engineering. I recently joined Apple’s Silicon Engineering Group after completing my graduate work at UCSD. I would like to take this opportunity to thank all the faculty and staff at
Message from the HoD

“Strive for perfection in everything you do. Take the best that exists and make it better. When it does not exist, design it.” These lines by Henry Royce best describe the strategy and practices that the Department of Mechanical Engineering follows to be a preferred destination for students, researchers, teachers and external stakeholders. Accordingly, our primary focus is on providing quality education, nurturing innovative thinking and promoting a socially relevant research environment in the field of Mechanical Engineering.

NCU’s Mechanical Engineering graduates get high end placement offers in reputed companies as we skill you to take off running from day one. We have a relevant and industry-ready curricula with the flexibility of choosing courses from a large number of departmental and interdepartmental Electives and also provide you the option of choosing your subject of specialization. We maintain a high level of industry-academia collaboration through a wide range of activities including industry associated projects, summer internships, industrial visits, expert lectures, workshops and conferences. We offer industry relevant programmes with updated syllabi, laboratory and computational facilities as we are committed to offering you a platform to develop and hone your skills and be ready to face market challenges when you graduate.

There is significant growth potential in this sector as the Government’s policies focus on making India a global manufacturing hub. Therefore, the demand for quality mechanical engineers in the manufacturing sector would continue to remain high and companies will continue to look for mechanical engineers like you who are specialists in cutting edge technology, empowered with greater analytical and technical skills. The Mechanical Engineering curriculum is a balance between a strong theoretical foundation and its practical applications, technical knowledge and complementary studies, with the aim of producing well-renowned graduates.

In addition to a sound knowledge of applied sciences and technology you will learn to work as a member of a team and become a well-equipped and talented graduate with the right attitude. For leadership positions in the manufacturing industry we also prepare our mechanical engineers with good oral and written communication skills so that you can present your ideas in a logical and structured manner. Emphasis is on your holistic development through participation in co-curricular and activities of professional societies.

VISION: To be a preferred destination for students, researchers, teachers and external stakeholders by providing quality education, nurturing innovative thinking and promoting socially relevant research environment in the field of Mechanical Engineering.
Laboratory Facilities
We focus on practical orientation and our major projects are supported by well-equipped labs like the IC Engine Lab with a ‘Single Cylinder CRDI (Common Rail Direct Injection) Diesel Research Engine Test Rig’ facility. The other labs include the Machine Shop, Fitting/Sheet Metal Shop, Foundry Shop, Pattern making/Carpentry shop, Welding Shop, Fluid Machines Lab, Automotive Lab, Auto Fuels and Lubrications Lab, Computational Fluid Dynamics Lab, Heat and Mass Transfer, Refrigeration and Air-Conditioning Lab, Material Science Lab, Elements of Mechanical Engineering Lab, Engineering Drawing Lab, PG and Mechatronics Lab, Energy Conversion Lab, Strength of Material Lab, and CAD Lab. We offer you opportunities to test your technical skills in real-life challenges like applying your technical knowledge to design and build an off-road, all-terrain vehicle under the mentorship of industry experts.

Partnership Agreements
Under the Agreement with Beijing Wave Spectrum Science & Technology Co. Ltd. China and The NorthCap University the Vibration Lab was setup at the University with an approximate cost of USD $60,000 (INR 40 lakhs) by Beijing Wave Spectrum. It is a multidisciplinary lab with test equipment and instruments for mechanical, civil and electronics engineering disciplines. Collaboration with Mitsubishi Electric India Private Limited has provided equipment worth over Rs 23 lakhs for demonstration, learning and training of students and faculty at NCU.

Departmental Magazine
If you are a creative writer you can contribute to the Department’s biannual magazine ‘MechTalk’ which also has contributions from industry experts and faculty. It is a medium to share news, views, activities and events of the Department. You may share your short stories, views, puzzles, quizzes etc.

Societies and Clubs
The Department has active Student Chapters of professional societies like the Robotics Society, Society for Automotive Engineers (SAE), American Society for Mechanical Engineers (ASME), Solar Energy Society of India (SESI), Indian Society of Heating Refrigeration and Air-conditioning (ISHRAE), Indian Society for Technical Education (ISTE) and American Society for Quality (ASQ). Participating in the activities of these societies will develop your technical and non-technical skills as well as help build professional relationships.

Research @ the Department
Faculty members pursue research in their area of expertise, publish books and research papers in various national and international journals and conferences. The Department is granted financial support to organize national and international level conferences by the Government and private agencies. Apart from pursuing research activities the faculty also undertake consultancy projects from the industry.

Technical Projects by students
We offer you opportunities to take up challenging projects and some technical projects are sponsored by various industries and the Government, like the Ministry of Micro, Small and Medium Enterprises (MSME), MACE, IFB etc. Through the event ‘Technovation’ the innovative projects of students are showcased to external experts. The Best BTech projects are given handsome cash awards.

NCU’s Team ‘TVN’ comprising of Tanyam Popli, Vibhorr Mittal and Shivam Nautiyal (ME) competed in a global environment and won the 2nd Prize, the ‘Excellence Award’ in the Delta Cup 2017 for their project titled ‘Self-Check-out System in Retail’ based on Smart Machines, Smart Robots and Smart Manufacturing using Delta Electronics components held in China in 2017. The expert panel highly appreciated the efforts of Team TVN for their concept, design and technical knowledge about the system. Team TVN received a trophy and won a cash prize worth 2000 RMB, apart from 300 RMB for securing a place in the Top 10 in online voting. More than 75 Asian teams from China, Taiwan, India and Thailand competed and this was the first time when India participated for the ‘Delta Cup’ with NCU’s TVN being selected pan India for this prestigious competition.

At the 3rd National Student Project Exhibition on Engineering Design our project ‘Supra Vehicle’ won the Best Project in Mechanical and Civil Engineering category, ‘Coconut Opener’ won the Best Project in the Open category. The team Alacrity of SAE Society secured 1st position in the Pre Virtual Round of ‘ISIE-Indian Karting 2017’ from among 35 teams participating from across the country.

Mitsubishi Electric India Pvt Ltd conducted a preliminary selection round for Mitsubishi Electric Cup 2018 and NCU’s interdisciplinary team ‘Adroit’ was amongst the 35 shortlisted out of over 150 teams. The title of the project of team ‘Adroit’ is ‘Smart Drainage System’.

www.ncuindia.edu
A team of ME students presented a paper in the 2nd International Conference on Cutting Edge Technological Challenges in Mechanical Engineering (CETCME-2017) in Feb 2017 on ‘Dynamic Modelling and Validation of Continuous Beam with Free-Free Boundary Conditions’. This paper won the ‘Best Research Paper Award’ in ‘Mechanical Design’in this conference.

Every year, a group of students undertake a formula racing car project, which they showcase at the BAJA competition organized by SAE. Our multi-disciplinary team ‘ELECTROTECH’ comprising of students from Mechanical Engineering and Electrical and Electronics Engineering received acclaim in a national level automation project competition organized by M/s Mitsubishi Electric Ltd.

Such opportunities will provide you a platform to test your knowledge, hone your skills and give you a real world experience.

**MSME collaborates with NCU**

Government of India recognizes The North Cap University as a leading professional educational institute in the area of design/innovation/ engineering. Micro Small & Medium Enterprises (MSME) is collaborating with NCU under the Design Clinic Scheme (DCS) that aims to enable ‘design as a tool for improving manufacturing competitiveness’ of respective MSMEs in the manufacturing sector. DCS, working towards this cause for the past 5 years, was upscaled and relaunched in Dec 2016, details of which are available at https://www.designclinicsmsme.org/

Under the Design Clinic Scheme faculty and students of NCU will further the MSME sector in Haryana through the following project activities:
- Design Awareness Seminar for MSME clusters.
- Design Awareness programme consisting of need assessment survey and design clinic workshop for identified manufacturing cluster.
- Student Design Projects taken up by graduating students as their final project along with MSME.
- Professional Design project taken up by professional industrial design expert along with MSME.

**Placements**

After graduating as a Mechanical Engineer from NCU you will be in demand at design bureaus, manufacturing and software industries in the public and private sectors. The automobile industry, heavy engineering, steel plants, power companies, oil and gas companies are some of the sectors which welcome mechanical engineers in large numbers. If you choose you may pursue higher studies in India or abroad.

**USPs of Mechanical Engineering**

- Efficient and highly qualified faculty members (75% PhDs or pursuing PhDs) nurturing students for their future endeavours.
- State-of-the art laboratory facilities (IC Engine and Vibration labs) for understanding and undertaking quality research work.
- Market driven curriculum (relevant electives) that is being updated periodically in consultation with experts from industry and academia.
- Flexibility in choosing specialization options and their electives to facilitate industry placement and admission to universities abroad.
- Outstanding industry-academia interaction through expert sessions, industrial visits, internships, professional societies and workshops.
- Emphasis on holistic development of students through promotion of co-curricular activities and professional societies in the Department.
- Excellent placement through our placement partners like CB&I, Denso, Subros, Samsung, Flour Daniel, Maruti, Sona, IFB and many more.

**Students**

- **Vaibhav Kaushik**
  BTech, ME
  Beijing Wave Spectrum Science and Technology Co. Ltd.

- **Tushar Sharma**
  BTech, ME
  DAIKEN
  Airconditioning India

- **Aditya Kaushik**
  BTech, ME
  DENSO

- **Sahil Gahuri**
  BTech, ME
  Volkswagen Motor Sport
The Department of Computer Science and Engineering and Information Technology (CSE&IT) is one of the core departments of The NorthCap University. The Department has a research culture with strong research groups in data sciences and cyber security with Government funded projects and research papers published in reputed international/ national journals. We have an experienced and well qualified faculty with excellent concept delivery through ICT and the latest computing equipment to support research and learning activities, including a High Performance Computing Lab, CISCO Networking Academy, Cloud Lab, RFID lab and IBM Emerging Technologies Lab etc. The faculty’s concerted efforts bring out the best in our students by keeping them in touch with the latest developments in global technologies. The choice of courses is based on latest industry trends. You have the flexibility to choose from different Elective and Value Added Courses on latest industry trends like Data Analytics, Big Data and Cyber Security.

We maintain effective industry alliances through MoUs for guest lectures, curriculum revision, internships, placement, live projects with a record of 100% placements. We have international collaborations with universities in the US, Canada and Ireland for student and faculty exchange. The Department of Computer Science and Engineering and Information Technology offers a broad undergraduate curriculum, based on theoretical foundation of computer science and engineering and practical applications, including designing and implementing of products and software. The Department offers two-year degree course in Masters of Technology (MTech) in Computer Science & Engineering with specialization in Cyber Security and Computer Science & Engineering with specialization in Data Science. It is constantly evolving to meet the changing needs of the industry. The curriculum and scheme of learning is framed with the help of experts from the industry, to keep it aligned with their needs. We promote active industry - academia collaboration by identifying areas of interest and taking part in sponsored research projects and consultancy services.

The Vision of the Department of CSE&IT is to encourage all modern endeavours in academia, learning innovations, socially relevant research and problem solving in the field of Computer Sciences & Engineering.
Research @ the Department

Research is the primary activity and focus of the Department. Faculty members are active researchers in their respective domains of expertise and many best paper awards have been won by the faculty and students. Research within the Department is grouped into eight clusters namely: Cyber Security, Data Mining, Soft Computing, High Performance Computing, Computational Optimization, Software Engineering, Information Security, Speech and Image Processing and Bioinformatics.

Research and Computing Laboratories

The Department has a hi-tech learning environment with well-equipped research laboratories for Database Management Systems, Software Engineering, Network Programming, Computer Graphics, Java Programming, Information Security and cryptography, Operating System, Object Oriented Programming, Compiler Design, Computer Networks, Internet and Web Programming, Mobile Computing, Software Testing, C/C++ Programming, Modelling & Simulation, Advanced Algorithms, .NET Programming, Object Oriented Software Engg. The NCU CISCO Network Academy has been established as a joint venture between The NorthCap University and CISCO and a High Performance Computing Lab has also been established with 1 teraflop computing power.

Cyber Security and Ethical Hacking

The Society of Cyber Security Education and Research (SOCER) has been established to work in the domain of cyber security, cryptography, ethical hacking and related areas. Students help the police battle cyber crimes through their expertise in ethical hacking.

QEEE Programme of IIT Madras

In a tie up with IIT Madras for conducting QEEE programme the Dept runs a Certificate course on ‘Non-Linear Data Structures and Applications’ and ‘Priority Queues and Trees - Data Structures’ for students.

Spoken Tutorials with IIT Bombay

Dept. of CSE & IT has collaborated with IIT Bombay for Free Open Source Software (FOSS) training through Spoken Tutorials software project. The Department runs FOCP and C, for 2nd Semester students, OOPS and DBMS for 4th Semester students and Software Engineering for 6th Semester students to enhance their skill, learn fundamentals and gain confidence.

NASSCOM NACTech

The Dept in association with Aptech, Noida conducts NASSCOM NACTech examination for students of BTech CSE&IT. NACTech is applicable for engineering students of all disciplines who are interested in working for IT companies across India. NASSCOM NACTech has been conceived as an industry standard assessment and certification programme.

Achievements and Activities of the Department

Various MoUs have been signed for exploring career opportunities by associating our students with live projects/product development in industries. Through these collaborations, the CSE&IT department would fulfill the commitment to bridge the gap between academics and the industry. The students obtained the first and third rank in Happening Haryana Startup Weekend. The Department conducts pre-placement interviews and mock tests to facilitate the students in internships and job opportunities. Value Added Courses, Summer Schools & Refresher Courses are carried out as Pre Placement Activity. Various workshops and guest lectures are also conducted to make the students and faculty aware of the latest industry trends. Students have won several competitions for Best BTech projects.

Professional Societies and Clubs

The Department offers students opportunities to enhance their soft and technical skills by being part of various groups, Google Student’s Club, Computer Society of India, ISTE, SPL, Microsoft Technical Club, Reframers Club, FOSS Group. The e-Gov Cell will provide you a platform for e-Gov projects which benefit society.

Constantly Evolving Curriculum

The Department offers streamed electives in Network Security and Cryptography, Big Data, Digital Image Analysis, Data Mining and Warehousing, Computational Modeling, High Performance Computing, Machine Learning, Combinatorics, Cloud Computing, Computational Neuroscience, Digital Forensics. The Department is working hard in thrust areas of Cyber Security and Data Mining. Our curriculum includes Colloquium, Presentation and Training in which the weightage is given to Summer Training, General Proficiency and GATE results.

Industry Engagement

At NCU, we have more interaction with the corporate world than any other similar institution which is one of the reasons why we are consistently ranked at the top. The percentage of placed students in 2016 and 2017 was 100%. CSE and IT 4th and 6th Semester students go for summer training to companies like Adobe, HCL, MTNL, DRDO, NIC, IIT Delhi. The faculty also visit these companies during the internship of our students so as to strengthen the relationship with the firms and get the feedback that helps us to further improve our curriculum. This practice also helped us establish an association with various firms and we have signed seven MoU’s with industries.

Student Achievements

Faculty members often work in collaboration with researchers from other groups and departments on interdisciplinary projects by DST, AICTE, DRDO and MSME. Five patents have also been filed by the Department.
Our BTech student, Pranav Jain, was invited to Rashtrapati Bhavan for a day long Hackathon for Social Innovation. He was personally mentored by the Hon’ble President of India, Shri Pranab Mukherjee and other industry leaders. Pranav’s team project works on the app, 'Monitoring of Loos in public places’ which helps in keeping the toilets clean by use of smart sensors and lists all the nearby toilets in an area. The project has been selected by the Chairman of New Delhi Municipal Council for implementation across the Capital.

Our students Urvika Gola and Pranav Jain, were speakers at FOSSASIA Summit 2017, Asia’s Premier Open Technology Event, held at Singapore for which they were sponsored by Debian and Outreachy. Pranav Jain, was recently invited to Helsinki, Finland to represent India at Ultrahack, a global three day hackathon whose goal is to bring together developers, startups and corporations to solve world-class challenges with the latest technologies. He was also invited there to Slush conference which is one of Europe's largest technological event.

An Android App was created by students of Dept of CSE&IT for Brazilian company 'Craostvreja'. An educational Android application in Hindi and English language was developed for improving communication skills of Indian children suffering from cognitive disabilities like autism, dyslexia, aphasia and specific language impairment.

Final year BTech students, won the First Prize in Skyfi Labs Project Competition 2016, a National level competition for India's Best Engineering Final Year Project.

**International Collaborations**

The Department has collaboration with Michigan Technological University (MTU), USA for the 3+1+1 programme wherein a BTech student can complete his 4th year from MTU. He can also complete his/her post-graduation in one year from there. Teacher training and Academic Research Programme is also a part of the collaboration. The Department has collaboration with the University of Regina, Canada for MTech students to earn a Canadian MEngg degree. The Department also has strong collaboration with ITB, Ireland.

**USPs of CSE & IT**

**Research Culture:** Strong research groups in data sciences and cyber security with Govt funded projects and research papers in international/national journals.

**Experienced and well qualified faculty:** Brings out the best in students by keeping them in touch with the latest state-of-the-art technologies and provide supportive environment for students to study.

**Effective Industry Alliance and International Tie-ups:** MoUs with industry for placement, guest lectures, curriculum revision, internships, live projects and record of 100% placements. Collaboration with universities from US and Ireland for student and faculty exchange.

**State-of-the-art infrastructure:** Excellent concept delivery through ICT and up to date computing equipment to support research and teaching activities including High Performance Computing Lab, CISCO Networking Academy, Cloud Lab, RFID lab IBM Emerging Technologies lab, etc.
Message from the HoD

Exposure to globalisation and modern living styles has made the work of civil engineers not only essential but also interesting, varied and fun. A career in Civil Engineering can (literally) take you anywhere. We work in the heart of the busiest cities, enabling ever taller skyscrapers and more efficient underground transport networks, and in the remotest parts of the planet, bringing fresh water and reliable infrastructure to those who need it most. There are a wide range of diverse careers under the umbrella term of Civil Engineering, with great employment opportunities and excellent career progression possibilities. Besides new constructions, as infrastructure continues to age the requirement for civil engineers will grow as they will be needed to manage projects, rebuild bridges, repair roads, and upgrade levels and dams etc. Our degree programmes are in step with the current needs of the Civil Engineering industry and prepare you for everything you need.

Our Department of Civil & Environmental Engineering has been providing quality education since 2007 and is among the youngest and most dynamic departments at The NorthCap University. Here you gain expertise not only in designing, construction, and maintenance of the built environment but also learn soft skills, such as, effective communication, critical thinking, leadership quality, project management apart from technical skills like writing reports, research papers etc. With excellent infrastructure facilities and qualified and dedicated faculty, we ensure your dream comes true, whether for becoming a professional engineer, researcher, teacher or entrepreneur. After graduating a career in civil engineering shall be highly rewarding.

About the profession & your role

Civil engineering consists of several sub-disciplines, including Structural Engineering, Geotechnical Engineering, Water Resources Engineering, Environmental Engineering, Transportation Engineering, Surveying, Construction Engineering and new thrust areas, such as green technology, natural calamities, with emphasis on sustainability and other future challenges including effects of climate change. The Department of Civil & Environmental Engineering organized a National Conference on ‘Smart, Sustainable & Resilient Civil Infrastructure Development (SSRCID – 2016)’. Focus was on infrastructure that supports human well-being and which should be smart enough to conserve the 3Es, i.e., Energy, Environment and Ecology.

Department of Civil & Environmental Engineering

Prof. H B Raghavendra
PhD, Indian Institute of Science, Bangalore
MS, IIT Madras
BE, University of Mysore, Karnataka
Vice-Chancellor & Head, Dept of Civil & Environmental Engineering

NAAC ACCREDITED

VISION
To be known as global leaders in the area of Civil & Environmental Engineering through innovations, academic excellence and socially relevant research outcomes and to become a preferred destination for all the stakeholders.
A Civil Engineer should possess skills for analysis, design, construction and maintenance of various structures; computing, managerial and communication skills for optimal management of resources and a consciousness of environmental sustainability. We will skill you in the use of computers for analysis, design and construction, new technologies like remote sensing, green buildings, intelligent buildings, intelligent transport systems, managerial skills for managing resources and structures and good communication skills. If you would like to combine your technical knowledge and creative flair to solve problems, Civil Engineering is an excellent career choice. How many jobs affect how our environment looks and works? For many civil engineers, it is the way they can change our surroundings and improve the lives of millions of people that draws them to the profession. A Civil Engineer sees whole projects through each stage from feasibility to design and implementation. They are needed for disaster management after natural calamities like earthquakes, droughts and floods and at times of war, to help the local population rebuild or maintain the conditions that will keep them alive.

The Civil Engineering curriculum and scheme of studies is relevant and updated regularly to meet the changing needs by drawing on the expertise of the industry and leading academicians from India and overseas. It includes the study of Basic Sciences, Core and Programme Electives, Open Electives, a compulsory foreign language, foundation course, communication and technical skills. The structured programmes on offer provide invaluable experience, transform graduates into highly employable individuals. What's more, students' knowledge of science, maths and technology is strongly refined.

How do we equip our students for the 'Real World'?
Your career prospects will be sharpened through real-world practical training, project work, exposure to the latest software, industrial visits and more. In addition, to keep you abreast with the latest developments in the industry, we have industry experts to interact/deliver guest lectures. Communication skills are improved through periodical technical colloquia in which you will make presentations of your skills and research achievement or work as a member of a multidisciplinary team and become an effective project manager. We promote multidisciplinary research and develop technology support for industry and Government institutions with focus on sustainable development and socially relevant projects for the betterment of human society, environment and the nation. For acquiring managerial skills you will prepare reports of case studies. Regular field visits right from the first-year to the final-year will enable your smooth transition from solving classroom problems to real-world problems.

We ensure you gain the ability to apply knowledge of mathematics, science, and engineering to analyze, design and construct in the field of civil engineering. You will become proficient in designing and conducting tests of construction materials and building components as well as analyze and interpret data. We develop global linkages and industry connects at multiple levels so that our students are completely up to date with recent advances in the field.

Professional Societies
The main objective of professional societies is to develop skills in technical and non-technical fields, beyond the classroom and to encourage professional networking and exposure to the professional world. The Department of Civil & Environmental Engineering has active student chapters of the Institution of Engineers (India) and the American Society of Civil Engineers (India). The Department has the Society in Pursuit of Advances in Civil Engineering (SPACE) in the University. The Department recently established the student chapter of the Indian Concrete Institute (ICI) in 2017.

Laboratory Facilities
The Department of Civil and Environmental Engineering has a variety of laboratories for Structural Analysis, Soil Mechanics and Geotechnology, Concrete Highway Engineering, Fluid Mechanics, Surveying, Environmental Engineering, Engineering Geology, and Computer Simulation and Modelling. Some of the major equipment with which experiments can be conducted on fundamental and field projects include the Triaxial Shear testing equipment with data acquisition system in the Soil Mechanics and Geotechnology laboratory, Total Station in the Surveying laboratory, Tilting Flume in the Fluid Mechanics laboratory, Spectrophotometer and High-Volume Samplers in the Environmental Engineering laboratory, Computerized Universal Testing Machine in the Strength of Material laboratory etc.

The NorthCap University Testing Centre (NABL Accredited)
The NorthCap University Testing Centre (NCUTC) established by the Department of CEE provides facilities and equipment for the mechanical testing of building and construction materials. It is accredited by NABL and provides professional services to outside organizations and agencies involved in real estate business and the construction industry. NCUTC follows the managerial and testing procedure guidelines as per International standard ISO: 17025 - 2005 and NABL, a Constituent Board of Quality Council of India. NCUTC provides third party assessment of quality in the area of mechanical testing of building and construction materials, such as, cement, aggregate, concrete, soil, bitumen, etc.

Departmental Partnership Agreements
The Dept of CEE has collaborated with the CADD Centre Dwarka for conducting various software trainings, workshops and competitions. CADD Centre is imparting on-campus training on latest software tools of Civil Engineering such as STAAD-Pro, Nevis Works, E-tabs, Revit, etc. The Department collaborated with IIT Delhi for the Indian Road Safety Campaign, a voluntary organization running under the umbrella of Transport Research and Injury Prevention Program to enrich guest lectures, student internships, workshops and awareness programmes at the University. Partnership with M/s G-Eng Advisory Services further enhances industry engagement for internships, placements and live projects. Collaboration with Seafaradays India Pvt Ltd, an Offshore
Renewable Energy space has opened up new opportunities in emerging technologies in the renewable energy sector.

**QEEE Programme**
The Department is participating with IIT Madras for the QEEE (Quality Enhancement in Engineering Education) programme under which our course teaching for various subjects is supplemented by special lectures by professors from IITs. The programme provides supplementary study material with lecture notes, live class videos.

**Placement Opportunities**
A career as a civil engineer offers several lucrative job avenues in both public and private sectors. Some popular options include Steel Authority of India, National Hydroelectric Power Corporation, Bharat Heavy Electricals Ltd., consulting firms, railways, defense forces, municipal corporations, State and Central government organizations like PWD, CPWD, DDA and DMRC. Multinational and private sector companies involved in infrastructure projects like airports, ports, highways, metros, railways, including contracting and consulting firms regularly recruit our civil engineers. Initially, the nature of the job may be construction supervision, design, marketing or production. Experienced civil engineers can manage large-scale projects. Other areas in which our civil engineers work include teaching and research, for which you will need to acquire additional degrees at the Master’s and PhD levels. Civil Engineering offers unparalleled opportunities to work overseas. By becoming professionally qualified you will be able to enter the international workplace and work abroad on mega projects. Today the world is undergoing vast changes and the coming decades will be some of the most creative, demanding and rewarding times for civil engineers.

**Major activities of the Department**
The Department hosts an annual technical fest ‘SPACE DAY’ which includes various technical and non-technical events. It is an inter university event giving the students a platform to showcase their talent and abilities. The Department organizes several technical workshops for learning about the latest software.

The Department hosts annual events supported by ASCE Student Chapter, IRSC in association with IIT Delhi like the national level bridge design competition, national level awareness camps, industrial visits etc. There is a national level design competition organized by the department in association with CADD Centre every year in which our students compete with students from other universities and represent the Department at the State and National level.

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**Success stories**

**Ratik Khatri**

Joined Master’s Degree in Civil Engineering at Anglia Ruskin University, Chelmsford, UK which is one of the reputed universities in the avenue of Civil Engineering. “I am thankful to the faculty at NCU, Dept of Civil & Environmental Engineering for putting in great effort and guiding me that has enabled me to achieve this success.”

**Chirag Singla, (Class of 2013)**

Chirag Singla, is a budding entrepreneur and is now running his company named QuickDoctorIN Pvt Ltd. In his interaction with students at NCU he invited student volunteers and demonstrated variations in body language and human behaviour based on different situations. He also discussed the importance of honing interpersonal skills and body language.

**Ujjwal Prabhakar, (Class of 2016)**

Ujjwal Prabhakar, MTech has obtained the ‘Youngest Project Lead Position’ in JLL which is India’s premier and largest professional services firm specializing in real estate. The firm was awarded the Property Consultant of the Decade at the 10th CNBC-Awaaz Real Estate Awards 2015 and the Best Property Consultancy in India at the International Property Awards Asia Pacific 2016-17. He is the student of our 1ST batch of Construction Engineering at Management at the Department of Civil & Environmental Engineering.

**Rahul Yadav, Class of 2017**

Joined Master's Degree in Town Planning at Anglia Ruskin University, Chelmsford, UK. “I extend my sincere thanks to The NorthCap University for all the support and guidance that has enabled me to achieve success.”
Out of 129225 students who appeared in Civil-GATE 2017, Rohit Arora achieved high 99.48 percentile, Sukrit Sharma secured high 99.08 percentile, while Yashraj Singh secured 98.76 percentile.

Nine students from the department who successfully qualified GATE 2017:

**GATE 2017**

<table>
<thead>
<tr>
<th>Student</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rohit Arora</td>
<td>99.48</td>
</tr>
<tr>
<td>Sukrit Sharma</td>
<td>99.08</td>
</tr>
<tr>
<td>Yashraj Singh</td>
<td>98.08</td>
</tr>
<tr>
<td>Rahul Yadav</td>
<td>94.88</td>
</tr>
<tr>
<td>Kunal Vasisht</td>
<td>94.32</td>
</tr>
<tr>
<td>Naman Jain</td>
<td>93.36</td>
</tr>
<tr>
<td>Subham Bhardwaj</td>
<td>94.90</td>
</tr>
<tr>
<td>Ankit Brar</td>
<td>92.57</td>
</tr>
<tr>
<td>Harshal Khasa</td>
<td>94.20</td>
</tr>
</tbody>
</table>

**USPs of Civil & Environmental Engineering**

1. **Intellectual Capital:** Well qualified, and dedicated faculty and committed technical staff
2. **State-of-the-art laboratory facilities:** For academia and research
3. **NABL Accreditation:** Facilitates consultancy and research.
4. **Good placements:** With core companies e.g. CB&I, Ireo Infrastructure, India Bulls, L&T, Punj Lloyd Engineering etc.
5. **Outstanding industry interaction:** Through lectures, industrial visits, internships and workshops.
Department of Applied Sciences

Dr Ambika Devi
PhD, JUIT, Solan
MSc, HP University, Shimla
Assistant Professor & Head,
Department of APS

Message from the HoD

The Department of Applied Sciences not only aims at providing a strong foundation in the basic science courses offered to undergraduate programmes of the School of Engineering and Technology, but also offers some very important courses in Mathematics to undergraduate students of other disciplines. Mathematics forms the backbone for knowledge development not only for scientists and engineers but for managers as well. We encourage our students to ‘Learn how to think not what to think’ and to apply the fundamental concepts of sciences for solving practical problems in various fields of Sciences, Engineering, Technology and Management.

We are proud to have a rich pool of talent with highly qualified, experienced and research-driven faculty, many of them from IITs. The applicability and practicality of our courses will provide you with the necessary skills to face your future with confidence. You will have the opportunity to take part in stimulating investigations, exciting field trips as well as get theoretical grounding with plenty of hands-on experience, summer internships and finally a good campus placement, to start your science career. Our BSc and MSc programmes have internship and project based curriculum, at par with the best institutions.

We offer special guidance for NET, GATE, JAM, NBHM and other competitive exams. We will develop your full potential and provide you an enriched educational experience that will equip you with the qualifications and skills to achieve your ambitions.

We strive to ignite the spark for interdisciplinary research and development in our students and calibrate the real world requirements through our academic curriculum. The Department has good research labs and facilities developed with the support of government funding agencies, thus creating an infrastructure for interdisciplinary research. The Department of Applied Sciences is active in many areas of research and has established research projects attracting funding from various agencies like DST, DRDO etc.

The Vision of the Department of Applied Sciences is to provide a strong foundation in relevant areas of Mathematics, Physics, Chemistry and Environmental Studies to students of engineering and other disciplines and develop innovative minds for learning and interdisciplinary research. We encourage students to learn and apply the fundamental concepts of Sciences for solving practical problems in various fields of Sciences, Engineering, Technology and Management.
About the Department

The Department of APS offers you courses in Basic Sciences that aim at building a strong foundation and developing the necessary skill-set to succeed in the professional world. The Department offers academic programmes leading to BSc (Hons) in Mathematics, BSc (Hons) in Physics, MSc in Mathematics and PhD degree in selected areas of Mathematics, Physics, Chemistry and Environmental Science. The Department offers core and elective courses in Mathematics, Physics, Chemistry and Environment Studies to BTech, MTech, MBA, BBA and Pre-PhD courses. The programmes have been benchmarked with similar programmes offered by other reputed organizations in terms of credits and course content.

Faculty

In its quest for continuous improvement, formal training and development of all faculty members is an ongoing process. The Department regularly organizes workshops on communication skills and MATLAB under the Faculty Development Programme. Other than the classroom learning, faculty members share their knowledge and experience by conducting seminars which are open to both students and faculty. Our highly qualified and competent faculty is continuously engaged in publishing research papers, books, guiding scholars and students in their specialized areas. Faculty members have bagged the Best Teacher Award and Best Research Paper Award year after year. Besides the well qualified and experienced faculty we have Honorary Distinguished Research Professors associated with the Department.

Laboratories

The Central Research Facility and the state-of-the-art labs are available to take your laboratory experience to a new level.

Environmental Microbiology Lab in the Department of Applied Sciences was established to facilitate research at the University and is equipped with gas liquid chromatograph, UV-VIS spectrophotometer, laminar flow hood, incubator with illumination, centrifuge, autoclave, double distillation unit, light microscope, haemocytometer, etc.

Math Lab: To help enrich students' learning experience of the fundamentals and theoretical aspects of Mathematics, the Math Lab was established in the Dept of APS. It provides a learning environment where a student can visualize various mathematical functions in multi-dimensional space, learn to solve mathematical problems numerically, visualize the solution trajectory and more.

Physics Labs: For BTech and BSc (Hons) Mathematics programmes we have two Physics labs with the facilities of biprism setup, diffraction grating set, bar pendulum, Michealson interferometer, Newton ring apparatus, Polarimeter, Plank constant set, spherometer, Vernier calliper, numerical aperture set, ultrasonic diffraction set, cathode ray oscilloscope, dielectric constant kit, etc.

Chemistry Lab: For BTech programmes, the Department has a Chemistry lab with facilities of conductometer, centrifuge machine, distillation plant, electrical balance, flash point apparatus, flame photometer, pH meter, Redwood viscometer, spectrophotometer, melting point apparatus, ultrasonic bath, magnetic stirrer, etc.

Research

The Department is credited with having secured recognition from Government institutions like the Department of Science and Technology (DST), Council for Scientific and Industrial Research (CSIR), and Defence Research and Development Organisation (DRDO), who fund various research projects at the University.

Ongoing Sponsored Research Projects in the Department are:

- Study of optical and electrical properties of nanostructured glasses for application in optical recording media funded by DST (WOSA)
- Study of Polymer nanocomposites for solar cell applications funded by DST (WOSA)
- Lateral Flow Assay Strip Sensor Development for Non-Invasive Point of Care Diagnosis of Urinary Tract Infection funded by DST (SERB) Young Scientist

PhD scholars are pursuing research in the fields of Data Analytics, Nano Sciences, Fluid Mechanics, Green Chemistry, Material Science, Mathematics, Nanomaterials and solar cells, Micro-algae studies, Micro-Biology, Polymer Nano Composite, Optimization Technique & Applications etc.
**Success Stories**

**Manpreet Kaur Walia**  
Nagarro

I am lucky to get selected in Nagarro, a custom software development and business consulting company that provides consulting and technology services to its clients. I would like to thank The NorthCap University as this would not have been possible without the support, guidance and faith in me that I got there. I am also thankful to the University for helping me acquire the requisite communication skills and other soft skills which helped me during the crucial interview. This testimonial would be incomplete without referring to how indebted I am to the Elective courses which are being offered by the Department of Applied Sciences.

**Akshita Goel,**  
*MSc Maths*  
Data Analyst,  
*Nagarro Software Pvt Ltd*

Choosing NCU was the best decision I ever made. I started to dream BIG after joining it! I am currently working in Nagarro because of the guidance of the faculty. Thanks to all the faculty members for making my dreams come true.

**Ayushi Bhargava**  
Selected for MS (Data Analytics),  
*Georgia State University*, USA  
& Stony Brook University,  
*New York, US*

“Aiming for higher studies along with the challenge of maintaining good academic result in MSc Maths was a difficult task. This was made possible by the NCU faculty’s teaching methodology, relevant course content and the competitive classroom ambience. I really thank NCU faculty for all my success. I am really thankful to NCU for my success.”

**Pradeep Kumar**  
*MSc Mathematics,*  
*IIT Bombay*

Being at NCU has been the most perceptive learning experience. Cracking JAM and that’s too with AIR 3 is like a dream come true and it has been possible only because of guidance and confidence given by NCU faculty. The unmatched teaching methodology, competitive classroom atmosphere, relevant course content had always been a motivating force. I feel privileged to be a part of NCU as a student of B.Sc. (H) Mathematics programme, batch 2013-15.
The School of Management (SOM) at The NorthCap University is a leading B School from Delhi-NCR. The attraction of studying for a degree at SOM, whether it is MBA, BBA, BCom (H), and/or BA Eco (H), lies in combining theory and practice. It is this aspect that has given an edge to our graduates in terms of employability. NCU is located at right in the heart of the Commercial Hub of Gurugram, with hundreds of large Indian and multinationals in the vicinity.

The thrust at NCU is on value based education and interdisciplinary learning. The faculty members, with diverse academic and industry experience, bring in their rich experience into the classroom. While encouraging an interdisciplinary environment, we utilize the technical & legal expertise of our School of Engineering and Technology & School of Law respectively. Keeping with the times, our management education is amply supplemented with courses and assignments in legal and technology-based areas. Extensive use of case-based classroom learning helps our students build problem solving and analytical skills and understand business situations better. This is supplemented with guest lectures and seminars by industry professionals.

Further to our endeavor towards promoting holistic development, students are widely encouraged to participate in co-curricular and extra-curricular activities. Different events/activities are organized which are led and managed by our students. Students actively engage in community service. NCU graduation equipped with the right mix of academic knowledge and practical skills when they encounter in the real business environment. The curriculum is being constantly updated in line with the rapidly changing business environment. Learning is a never-ending process at School of Management which helps shape students' lives.

Since its inception in the year 2010, School of Management, NCU Gurugram has been a preferred choice for students and parents. Learning is a commitment at SOM. We believe in empowering our students and equipping them with skills that enable them to successfully deal in work and life experiences. Our faculty, in addition to their roles as teacher, trainers, consultant & researchers, play mentors to the students and each time take pleasure in going an extra mile to improve the students' personalities.

Time and again we have been highly ranked by many agencies and institutions both Government and Private. We have sustained and grown owing to our ideology that keeps students and their well-being and development first. Our students take pride about their association with us and all our flag bearers who live up to the NCU philosophy and keep contributing to industry, society and our nation.

Global Perspective
Build an international mindset through multifaceted learning experiences at NCU as it is the right place for access to distinguished leaders from across the world. They visit the University as faculty and mentors, deliver special guest lectures and interact with students. The School of Management has MoUs and alliances with good institutions to provide a global perspective to our management students. Having started off as the gateway to the London School of Economics and Political Science, we have since moved forward and forged alliances in the areas of student and faculty exchange, professional attachment and higher education with leading universities like University of Chester (UK). This enhances the overall learning and research experience of NCU students.

Industry Collaboration
Our vibrant campus is in the industrial hub of Gurugram surrounded by global business and finance, having close association with living lessons in start-ups and entrepreneurship. We help you build a global network as this is the market eager for your skills and outlook. Industry visits, guest lectures by industry experts, summer internship, live projects and a major research
Project in the final semester will expose you to real-life situations and help you apply theoretical concepts to contemporary business problems. The School of Management follows a systems-based approach to management education and imparts holistic learning with emphasis on industry needs of realistic hands-on management education aimed at operational efficiency, process focus, quality deliverables and use of IT for business effectiveness.

**Curriculum**
Choice of electives is not only from the School of Management, but also from other Schools as Managers in real life need technical, managerial and legal competency skill sets. We stress on holistic learning, entrepreneurship, values and professional ethics. NCU endeavors to create business leaders of tomorrow – business leaders with a sense of values and ethics, sensitive to the environment and to other human beings.

**Centre for Creativity, Innovation and Entrepreneurship**
Entrepreneurship Development activities find a special place in the curriculum as we believe that it is the key for nation building. Young minds are mentored to look at problems in society and come up with ideas to solve them and subsequently implement them. We kindle your entrepreneurial spirit as well as hand-hold our potential and budding entrepreneurs. The Centre for Creativity, Innovation and Entrepreneurship promotes interdisciplinary idea generation, innovation and strengthening industry tie-ups. The Centre runs short term certificate courses to make you better employable. The Centre houses workstations with I-Lab facilities having software for innovation, statistical software tools like SPSS, industry database like Prowess and an advanced modeling tool STELLA.

**Research @ SOM**
The School focuses on developing your research capabilities and faculty members help you to publish research papers in various national and international journals. Faculty members are involved in research activities and publish and present their research papers in national and international journals and conferences. Faculty members have their papers published in leading national and international journals, books published by Springer, Cambridge University Press etc and business case in Harvard Publishing.

**IBM Foundation Course in Business Analytics**
Foundation Course in Business Analytics, in association with IBM, empowers students to independently explore, analyze, visualize and share data. In minutes, analysts and line-of-business managers can create and share custom applications, dashboards and visualizations to help solve individual & workgroup challenges. As part of this course, participants will get in-depth understanding of Business Analytics using IBM Cognos Insight tool.

**IBM Fundamental course in Business Analytics**
Descriptive Analytics helps an organization drive better decisions, achieve better results, and gain a deeper understanding of trends, opportunities, weaknesses and threats.

**Placements**
Our graduates are driving change through leadership positions across all corporates, industries and sectors like banking and finance, information system management, investment banking, private equity, management consulting, data analytics, Human Resources (HR). With ample training and exposure, quite a number of students proudly start their ventures as well as get involved in family businesses.

The School of Management follows a systems-based approach to management education and imparts holistic learning with emphasis on industry needs of realistic hands-on management education aimed at operational efficiency, process focus, quality deliverables and use of IT for business effectiveness.

**USPs of School of Management**
- Industry-rich curriculum
- State-of-the-art infrastructure
- Well-trained faculty
- Industry collaborated value added courses in Business Analytics
- Focus on Entrepreneurship
- Curriculum designed by an industry consortium
- Mentoring
- Placements Assistance

**IBM**
Courses in Business Analytics in 2nd and 3rd Semesters are run in association with IBM
Student Speaks

Trishala Bhan  
(Formerly ITM University, Gurugram)

With my interest in marketing, I bagged a Market Research job even before my final year exams. I clearly remember that the various projects, mock interviews and group discussions that were conducted at SOM helped me a lot. My internship with Ingersoll Rand was indeed an eye-opener to the corporate world.

Srishti Saxena

It’s difficult to sum up the memories and experience of 2.5 years in a few lines. The campus is filled with positive energy and exuberance. I thank The NorthCap University for instilling in me the competitive and leadership skills. It has been an unforgettable journey. I consider myself lucky for being a part of The NorthCap University.

Surbhi Shah

Apart from the lush green campus backed by astonishing infrastructure, The Northcap University has limitless opportunities if a person wants to discover himself. From the very supporting faculty members to the excellent pedagogy, everything helped me enhance my knowledge and skills to the optimum.

Dr Archana Mehra

“The journey of my PhD at NCU has been an enriching experience, both academically and personally. I am fortunate to be associated with a leading institution like NCU, both as a student and as a faculty.

Puneet Khanduja  
(Formerly ITM University, Gurugram)

The MBA program at NCU (then ITMU) has gone a long way in helping me extend beyond just classroom study and prepared me to deal with the corporate world. The right balance of academics and corporate experience which the faculty brings on the table is such a great asset for students. Opportunity to participate in cultural and tech-fests made me come out of my comfort zone.

Purvanshi Batra

Apart from the focus on academics, there have been many other things which have gone a long way in contributing to my development. Exposure to seminars, guest lectures, industry visits and community service have made me different person today than what I was when I had joined.

Raveena Gaba

I am very glad to share my college journey (B Com, H) at NCU. I joined NCU as a shy and quiet student. But I got enough platform to explore my full potential. This helped me bloom into a confident go-getter and team player.
The NorthCap University’s School of Law (SOL) is amongst the premier law schools in North India and the preferred destination for every law aspirant. In the National Law Schools Survey published in 2017, SOL was awarded 2nd Rank in the Northern Region and 5th Rank in the category of ‘Eminence’ by Global Human Resource Development Centre (GHRDC), New Delhi. The School of Law is recognized as the Best Emerging Law School in India in the survey conducted by Careers 360 published in January 2017. It has been a delightful yet a rigorous joint effort on the part of the students and faculty who relentlessly work for the success of the School. SOL provides the highest quality professional legal education to equip students for a transnational practice and to face the challenges posed by the internationalization of the legal profession.

The lawyer of today is not only a lawyer, but also a business person juggling the demands of increasingly competitive practice. The make-up of legal practice has changed considerably in the last 20 years. The number of practicing lawyers has risen sharply. Women now make up a major chunk of lawyers practicing in Courts as well as working for corporate law firms. The result of this rapid change in the legal space is that there will be a greater degree of legal specialization than we see today. Already highly stratified, we’ll see sub-specialties within specialties, and specialties within those specialties. The law will become so stratified that a hundred thousand professions will emerge in the profession of law. Lawyers who have good knowledge of a very specialized area of the law will be in great demand. This will further increase the cost of basic legal services, and make a battleground for access to talent and the provision of global legal services.

The innovatively conceived 5-year integrated BBA-LLB(Hons.) Degree Programme integrates the study of law with management in a semester mode for enhancing the employability of NCU Law Students and for a stress free legal education in an era of specialty and super specialty subjects. SOL offers a one year’s LLM programme with specialization in Human Rights, Corporate Law and IPR; and PhD in Law with emphasis on Clinical Legal Education. Our faculty has wide industry experience and we offer structured internship and placement opportunities to our students in top Law firms, Delhi High Court, Tribunals and Supreme Court of India. Apart from a team of competent and dedicated law teachers, a host of other legal professionals like judges, eminent lawyers, in-house general counsels, activists, bureaucrats and leaders of the bar and the bench, regularly groom our students on lawyering and critical legal thinking skills. The innovative course matrix adopted by the School of Law with Honours and Elective Courses on specialization and super specialization subjects gives our students a competitive edge over other law students studying elsewhere. The achievements of our students in various Moot Court competitions, debates, MUNs and other extracurricular activities including sports, stand testimony to the fact that NCU School of Law is one of the leading law schools in Delhi/ NCR and encourages selected students to be academically sound in an enabling atmosphere conducive to their all-round development. Integration of the study of Law with Management subjects not only assists in developing our law students to excel as Lawyers but also as great Managers.
The NCU School of Law
You get excellent legal education through interactive learning processes, clinical opportunities, exposures to the legal profession through internships and externships, industry ready curricula and innumerable opportunities to interact with stalwarts in the legal profession. Westlaw, a leading global provider of content-enabled workflow solutions designed specifically for professionals in the legal field conducts training sessions for Law students. After graduating from the School, you will be equipped not only with knowledge, skills and values to make you a competent legal professional but also become a complete human being.

Apart from a team of competent and dedicated law teachers, a host of other legal professionals like judges, eminent lawyers, in-house general counsels, activists, bureaucrats and leaders of the bar and the bench regularly visit the School and will groom you for lawyering and to develop your critical legal thinking skills. UK Law Mission’s eminent professors from renowned Universities deliver lectures on contemporary issues and students get a chance to interact and gain from the insights of international professors. We integrate the study of Law with Management subjects to assist you will assist you to excel not only as lawyers but as great managers also.

The innovative course matrix adopted by the School of Law with Honours and Elective Courses on specialization and super specialization subjects will give you a competitive edge over other law students studying elsewhere. With a small class size of 40-45 students and with a faculty student ratio of 1:15 NCU’s School of Law takes pride in these stand-alone credentials and uniqueness amongst other law schools.

Research
To foster research, we publish the NCU Law Review, a biannual, blind peer-reviewed journal. It serves as a forum for the promotion and circulation of views on contemporary legal issues and for encouraging quality research and publications. Faculty members contribute research papers in international and national journals of repute and in conference proceedings and presentations. Recently a research scholar published three books on environment and sustainable development. She was sponsored by the International Union for Conservation of Nature (IUCN) and the Research Institute of Environmental Law (RIEL), Wuhan University (China), to attend a workshop in China.

‘Manupatra’, the online research portal, conducts certificate legal research training and sessions for students. It is the largest content aggregator of Indian and international material, linking primary information, secondary material and proprietary analytical content.

Centre for Development in Energy and Environment Policy (CDEEP)
Judicial interpretations of Indian Constitution envisage bottom-up approach of “energy-access” imperative for the country’s inclusive development. CDEEP aims to foster discussions, debates, and other academic discourses in harmonizing business and public policy aspects of energy sector. The research and development programs aspire to achieve its objective through:

- Educational Programs
- Co-Curricular Activities
- Scholarly Publications

Moot Court Competitions
The Moot Court Committee at the NCU Law School, Gurgaon encompasses the spirit for mooting that NCU recognizes as its own. Apart from maintaining a strong internal mooting structure, the Committee has been entrusted with the responsibility of hosting annually, the NCU Law School National Moot Court Competition. To this extent, the Committee is proud to find itself entrusted with the organization of a very prestigious and well-respected mooting court competition on Environmental Laws. The Committee also makes efforts to inculcate the fresher batch with the techniques of mooting and therefore conducts regular sessions on court manners and arranges for the Intra-Moot Competitions. Given the extraordinary amounts of preparatory work involved in the organisation of the various events, the Committee is an ever bustling center of activity, and is without wonder, a coveted committee to be in.

NCU Law School aspires to create lawyers who are comfortable and skilled in ‘dealing’ with the differing legal systems and cultures that make up our global community while remaining strong in one’s own national legal system. “It is one of the few occasions that the moot competition, conducted annually, is being held on a pressing issue of environment law every year for which it has been conferred with the title of “Indian Stetson”.

Legal Aid Clinic
The School has a well-established Legal Aid
The NCU School of Law

You get excellent legal education through interactive learning processes, clinical opportunities, exposures to the legal profession through internships and externships, industry ready curricula and innumerable opportunities to interact with stalwarts in the legal profession. Westlaw, a leading global provider of content-enabled workflow solutions designed specifically for professionals in the legal field conducts training sessions for Law students. After graduating from the School, you will be equipped not only with knowledge, skills and values to make you a competent legal professional but also become a complete human being.

Apart from a team of competent and dedicated law teachers, a host of other legal professionals like judges, eminent lawyers, in-house general counsels, activists, bureaucrats and leaders of the bar and the bench regularly visit the School and will groom you for lawyering and to develop your critical legal thinking skills. UK Law Mission’s eminent professors from renowned Universities deliver lectures on contemporary issues and students get a chance to interact and gain from the insights of international professors. We integrate the study of Law with Management subjects to assist you will assist you to excel not only as lawyers but as great managers also.

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- Educational Programs
- Co-Curricular Activities
- Scholarly Publications

USPs of School of Law

- **Multiple Offerings**: School of Law offers five years Integrated BBA-LLB(Hons) Degree Programme, One-year LLM programme with specialization in Human Rights, Corporate Law and IPR; and Ph.D. in Law.
- **Strong Faculty base with live experience of counselling sessions.**
- **Emphasis on Clinical Legal Education through integration of guest lectures by industry experts.**
- **Social contribution through Legal Aid Society in collaboration with District Legal Services Authority.**
- **Quality Internships and Placements with Top Law Firms, Supreme Court of India, Delhi High Court, National Tribunals, Centre & State Commissions.**
eminent professors from renowned Universities will groom you for lawyering and to develop your bar and the bench regularly visit the School and counsels, activists, bureaucrats and leaders of the like judges, eminent lawyers, in-house general law teachers, a host of other legal professionals. Apart from a team of competent and dedicated professional but also become a complete human values to make you a competent legal

After graduating from the School, you will be enabled work solutions designed to interact with stalwarts in the legal profession. You get excellent legal education through Westlaw, a leading global provider of content-to-ready curricula and innumerable opportunities to foster research, we publish the NCU Law uniqueness amongst other law schools. The University is proud of its students who have been serving in various capacities as technocrats, business managers, industrialists and entrepreneurs. The most frequently cited accolades regarding our students from the organizations which are regular recruiters from NCU include our students’ flexibility, ability to learn quickly, versatility, performance as team players, excellent analytical skills, and most importantly the positive attitude that they bring to their jobs. We are confident that our students will make a mark wherever they go and make their alma mater proud.

SPA is engaged in the task of enhancing student employability, improved industry internship attachment, career counselling and gap analysis, continuous improvement in the systems and processes, higher and better job placements with a wider industry reach and obtaining industry feedback for improving the academic curricula.

The School of Professional Attachment (SPA) at NCU is responsible for nurturing you from induction to placement, a bridge between the classroom and your first job. SPA ensures regular professional attachment of academics with industry for your professional enrichment and better job opportunities. Regular grooming sessions are held to explain various activities during campus placement drives such as Pre Placement Talks (PPT) by company officials, aptitude tests, Group Discussions (GDs), technical and HR interviews etc. To get the feel of a real-life working environment and to be up-to-date with the latest technologies you will undertake summer internships by working in the industry for a period of six to ten weeks.
Enhancing Student Employability

In addition to the technical skills, soft skills are required to be developed by a student to enhance employability. Soft skills are the abilities and traits pertaining to personality, attitude and behaviour. It helps to raise your Emotional Intelligence Quotient. There is a strong need to acquire these skills right from the moment you enter the first year of professional studies rather than waiting till the final year or just before the job placement selection process begins.

There is an important saying ‘Technical Skills will get you the interview, but it’s your Soft Skills that get you the job’. At NCU your soft skills are developed through a series of initiatives.

Industry internship attachment

Internship gives the opportunity to develop relevant skills, knowledge and experience. Industry internship provides you the opportunity to get attached with a professional organization, on a full-time basis, for a period of six to ten weeks to:

- Get exposed to a real-life work environment to acquire first-hand practical experience and sharpen your skills in tune with the requirements of the industry.
- Interact with real life working professionals and gain valuable references to gain an edge for better job placements.
- Apply theoretical knowledge gained through academic studies to the workplace, and blend it with real-life practical situations.

- Intern is an opportunity to showcase your potential for prospective employment with the same organization.

Internship thus acts as a stepping stone for entering into the professional world with the required skills. The job market is competitive and by showing your commitment as soon as you can, you will stand out. SPA extends all possible help in getting you placed with an appropriate company for your internship so that you get career-related work experience.

‘Aarohan’ and ‘Lakshay’ Clubs

The NorthCap University lays strong emphasis on equipping you with requisite skills to successfully migrate from the ‘Campus to Corporate’. To achieve this objective, two student led clubs ‘Aarohan’ and ‘Lakshay’ help you in grooming and placement related activities, supervised and guided by SPA.

‘Aarohan’ starts from the day you join NCU and continues till you get placed. It includes three main aspects – learning, practical exposure and assessment. ‘Aarohan’ is a label given to a programme called PPP (pre-placement preparation). It has been designed to help in your professional grooming with the objective of preparing you climb the ladder of success in your professional life.

‘Aarohan’ is managed by student executive members drawn from the three schools namely School of Engineering & Technology, School of Management and School of Law. Grooming activities are carried out round the year by conducting seminars, invited talks by industry experts, presentation competitions, mock group discussions and interviews.

‘Lakshay’ targets final placement related activities. It will serve as a launching pad for you to make it to the best organization based upon your professional interests and abilities. ‘Lakshay’ has been designed to cover all placement related activities which generally begin when you will enter the final year until you finally get placed. It includes registration for placement, opting for attending the placement drive of a company and appearing for the placement.

Third Party Assessment

NCU has taken a new initiative to facilitate evaluation of students’ employment readiness and gap analysis by outsourcing it to companies who do third party assessments for graduating students, on behalf of hiring companies. Many universities and institutions such as IIT Kharagpur, IIT Guwahati, IIT Roorkee, IIIT Delhi, NIT Delhi and some private universities are on the board of assessment companies. These tests are compulsory for BTech students.

Placement Portal

The complete working of SPA has been automated. A placement portal is used as a tool for all communication with students. It is used for:

- Uploading student resumes
- Posting the company profile and job profile of visiting employer companies
- Accepting student nominations for the company
Some Leading Recruiters

The University has strong links with a variety of employers - from startups to multinational corporations - all operating across a multitude of sectors. Efforts of SPA have resulted in over 98% placements of students who passed out in June 2017, in premier companies like Deloitte Consulting, Ernst & Young, McKinsey & Company, Fidelity International, Intel, Protiviti Consulting, Siemens, Daikin, Orange Business Services, Ericsson Global, British Telecom, Optum, Yatra.com, Libsys Corp., Newgen Software, Nagarro Software, Maruti Suzuki, CB&I, Samsung Engineering, SK Engineering, Think Future Technologies, Mentor Graphics and many others.

A positive feedback of the previously employed students, from the employers, has resulted in these companies continuing to return for campus placements with more inclusions each year. Besides securing job placements, a number of our students have gone on for higher studies in India and abroad.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>BTech</th>
<th>Total</th>
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<tbody>
<tr>
<td>1</td>
<td>STRENGTH</td>
<td>517</td>
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<tr>
<td>2</td>
<td>ELIGIBLE AND INTERESTED FOR PLACEMENTS*</td>
<td>311</td>
</tr>
<tr>
<td>3</td>
<td>NUMBER OF PLACEMENTS</td>
<td>302</td>
</tr>
<tr>
<td>4</td>
<td>% PLACEMENTS</td>
<td>98%</td>
</tr>
</tbody>
</table>

* Exclude higher study, Entrepreneurs and those joining family business

SPA stands committed to hand-holding you right from the time you join the University till you join your dream company and even thereafter as alumni, for the benefit of providing the wisdom of your experience to your younger college mates in the form of career counselling and getting better job opportunities. We wish you a great learning experience here at The NorthCap University and an equally rewarding career thereafter.
Centre for Languages Learning

Dr Payal Khurana  
PhD, MA (English)  
University of Jammu  
Assistant Professor & Officiating Head  
Centre for Languages Learning

Message from the HoD

Possessing good communication skills is of utmost importance in today’s world. The Centre for Languages Learning (CLL) was established with the aim of providing students of The NorthCap University, the required knowledge and effective communication skills in order to achieve excellence in various fields.

At The NorthCap University, we have students coming from diverse backgrounds possessing different speaking and writing abilities. To achieve excellence in any field it is of utmost importance to possess good communication skills. Our courses are designed keeping in mind the changing global patterns in business and communication. The English Section of the Centre seeks to cater to these diverse needs of the students of NCU by offering them the opportunity to be well read and be able to express themselves effectively both orally and in writing. The Centre offers courses in Communication Skills that enables the students to acquire abilities which are desired globally. We lay emphasis on enhancing communication skills by encouraging the students to articulate their ideas and demonstrate advanced reading, writing, listening and speaking skills. The curriculum is well-developed and it enhances skills from the perspective of employability as well. The faculty is highly qualified, experienced and committed to providing excellent standards of teaching by focusing on writing, reading, speaking and listening skills.

The Centre also offers courses on Human Values and Professional Ethics, Creative Writing and Campus to Corporate. The Centre conducts specialized workshops/training sessions in areas like Soft Skills, Personality Development, Body Language etc. By integrating ICT into classroom teaching, the Centre attempts to bridge the gap between academia and the professional world.

Besides developments in technology, research and higher education requires multilingual communicators having proficiency in foreign languages. The Centre offers mandatory courses in French, German and Spanish. We at NCU provide our students the opportunity to acquire proficiency in French, German, Spanish etc. so that they are well equipped to meet global challenges with confidence. Thus, every student enrolled in an UG course across the three Schools acquires a foreign language before graduation.

The vision of CLL is to be a sought-after Centre for Languages Learning that employs novel methodologies to encourage appropriate use of language in order to reconcile the varying demands of communication in the modern socio-economic milieu.
Faculty
We have a highly experienced team of qualified and talented faculty ready to provide you quality language education through Core and Elective Courses using innovative learning techniques and resources. As we have students coming from diverse backgrounds possessing different speaking and writing abilities CLL conducts a diagnostic test in English for 1st Year especially BTech students. Those who are weak in speaking and writing skills are identified and remedial classes are taken to improve their skills. We lay strong emphasis on enhancing the writing, reading, speaking and listening skills of all our students. We will also help you to prepare for interviews, group discussions, write your CV and resume at the time of placements.

Curriculum
Our courses are designed keeping in mind the changing global patterns in business and communication and catering to the emerging need of not only polishing your interactive skills in English but also affording you an opportunity to acquire proficiency in a foreign language. The Centre conducts specialized workshops/training sessions in areas like Soft Skills, Personality Development, Body Language etc. Besides Core Courses in English that the Centre is offering to all Schools of the University, it is also running basic and advanced Certificate Courses in German, French and Spanish. You can opt for any of the three foreign languages. The Centre has a Foreign Languages Club (FLC) and if you are keen to learn languages you can become a part of it. The curriculum of the courses is developed to enhance your employability skills.

Language Lab
We have a modern well equipped ‘digital language lab’ that offers rich language learning content. The students can use it extensively to familiarize themselves with content from different sources and media such as text, images, audio, and video. The idea is to offer an alternative way of learning and to promote the practice of skills learnt in class by using technology as a tool.

The Centre runs various clubs like Samwad, Success Mantra, Lingua Franca, Mainstream and Abhivyakt which conduct several enriching activities, competitions, seminars etc. Students can be an active participant of these clubs, voice their opinion on contemporary issues and polish their language, communication, interpersonal skills and be ready to face the world with poise and confidence.

USPs of the Centre for Languages Learning
- **Emphasis on learning a foreign language:** The Centre offers mandatory courses in French, German and Spanish. Every student enrolled in UG courses across the three Schools acquires basic skill in one foreign language before graduation.
- **Acquisition of Soft Skills:** Integrating ICT into classroom teaching, the Centre attempts to bridge the gap between academia and professional world through the imparting of soft skills.
- **Enhancement of Communication skills:** The Centre strives to encourage students to articulate their ideas and demonstrate advanced reading, writing, listening and speaking skills.
- **Emphasis on Personal Skills and Human Values:** The Centre offers courses on Human Values and Professional Ethics, and Campus to Corporate.
Research @ the University

If you are creative, have new ideas which you want to test, see them materialize and patent them, we will assist you in every way as the vision of The NorthCap University is to be known globally for learning innovations, academic excellence and socially relevant research outcomes. It accords the highest priority to research and promotes sponsored research, project consultancy and industry academic linkages. NCU has set up a Research Development and Industry Liaison (RDIL) cell in the University for this purpose. We have a well-equipped Central Research Facility, a Centre for Creativity, Innovation and Entrepreneurship and an Incubation Centre to hand hold you in developing your commercially viable ideas.

Central Research Facility

After the recognition of NCU as a Publicly Funded Research Centre/University by the Department of Scientific and Industrial Research, Government of India, (one of the few self-financed educational institutions or universities to be so recognized), the Central Research Facility (CRF) was established in the University. It has strengthened research-relevant infrastructure of science and technology at the University and faculty members and students utilize this facility to pursue their research work. Several UG, PG, and PhD level projects funded by NCU and external funding agencies are being carried out at the facility.

Contribution of Distinguished Research Professors

Distinguished research professors of eminence strengthen research activities at the Department level by conducting workshops, seminars, initiating socially relevant student projects and establish national and international level collaborative programmes. Under their guidance, several research groups are working in advanced research areas. The research groups are interdepartmental and multidisciplinary with faculty members from two or more departments participating to complement each other’s skills.

Best Research Paper Awards

NCU encourages and recognizes research publications of research scholars and faculty through the Best Research Paper Award.

Publications

Our faculty members actively participate in national and international conferences and seminars throughout the year. They author books, book chapters and their research papers are published in refereed journals. Over 260 research papers have been published in refereed journals, 18 book chapters and two books have been published in the last one year.

Tech Fests

‘Cerebration’, ‘Technovation’ and NCU’s SAE Collegiate Club’s technical cum automotive fest, SAKSHAM, are technical fests that will give you an opportunity to showcase your technical skills in an environment of competition with colleges all over North-India. These programmes provide you a platform to demonstrate creativity, innovation and technical knowledge. Technical competitions are regularly held in diverse fields such as robotics, building all-terrain vehicles, hardware assembly, design and programming, website design, and graffiti where you get the chance to showcase your innovative projects.
Beyond the Classroom

Personality development, sports and a wide variety of extracurricular activities make up an important part of student life. The University provides excellent physical infrastructure, necessary support and offers a myriad of opportunities for your holistic development.

Sports and Extracurricular Activities

If you want the thrill of competition or desire physical fitness, NCU will provide you a wealth of sporting opportunities, both on and off campus. The University has sports facilities for nearly all indoor and outdoor sports and numerous clubs that provide an array of activities to choose from. The cricket-cum-football ground is arguably one of the finest grounds in Gurugram, with floodlight facilities for night sports. The sports ground is embellished with an athletics track, a multipurpose sports arena and amphitheatre. Our students have been participating and performing well in different sports tournaments in and outside Delhi/NCR. Sports have earned the University several awards, with winners’ trophies in basketball, football and cricket in inter-university tournaments across India.

Students’ Activities

A lot of activities are available for honing talent and for enhancement of your overall personality. They will enrich your life, relieve mental pressures and provide relaxation so that you reach your full potential. Regular activities occur on and off campus and are open to all students. The campus is enlivened by the number and diversity of its students’ organizations. Many students’ groups are dedicated to community service and social action.

You will get varied opportunities to participate in the performing arts - in theatre productions, music ensembles, dance groups, or to become involved in committees that sponsor speakers or organize cultural festivals. The music, photography, art, painting, films and dramatics societies are active throughout the year. Symposia of literary pursuits like debates, group discussions and quizzes are regularly conducted. A variety of cultural activities, festivals and tech fests, which synthesize technical knowledge with fun, are organized. ‘Momentum’, the annual cultural festival of the University, and ‘Club Fiesta’ are occasions for you to display your talent and give artistic expression to your personality.

National Service Scheme

The University is running the National Service Scheme (Self Financing Unit) which enables students to participate in various national and international activities, being conducted by the Ministry of Youth Affairs and Sports, Govt. of India.

Special Activities and Trips

If you have interest in journalism, there are rich opportunities available for you. VectorTech, the bi-annual publication about the life at the University serves as a platform for presenting opinion on a wide spectrum of issues. In addition, a monthly ‘Newsletter’ serves as the chief source of campus news. A student run magazine ‘Hashtag’ is a forum for discussion.

The Recreational Club organizes adventure cum educational trips regularly. All trips are designed to educate and build your confidence, provide you thrills of adventure and outdoor recreation, explore and learn more, as well as promote the ethical use of environmental resources.
**SPIC MACAY**

Musical concerts are organized under the aegis of SPIC MACAY, where students get an opportunity to attend performances by renowned exponents of classical Indian music and dance. Renowned artists like Pandit Hari Prasad Chaurasia, Pandit Neeladri Kumar, Pandit Vishwa Mohan Bhatt, Pandit Salil Bhatt, Shri TN Krishnan, Shrimati Savita Devi, Pandit Rajendra Prasanna, Pandit Prateek Chaudhuri, Shrimati Rashmi Aggarwal, Mr Gustavo Tavares and guitarist Anders Clemens, Ms Ragini Chandrashekar, renowned folk artist Ustad Rehmat Khan Langa, Qutbi Brothers, Ms Sudha Raghuraman, theatre performance by ‘Naya Theatre’, founded by renowned playwright, poet and actor Late Habib Tanvir and many more have performed at the University.

**Scholarships**

The NorthCap University considers it a social responsibility in putting education within the reach of everyone and grants a number of full/partial fee concessions and Merit Scholarships of about Rs. 1.58 crores every year to about 200 students from the Schools of Engineering, Management and Law, so as to encourage promising students from economically and socially weaker sections of society as per University rules.

Scholarships are also awarded to students on the Dean's List for encouraging meritocracy.

**Social Outreach**

If you have genuine concern for those who are not so privileged and want to reach out to those whose lives you can touch and make a difference you can do so through the ‘Yukti’ club at NCU. It focuses on spreading happiness amongst different sections of society by regularly organizing activities such as:

- Blood donation camps at the University for the benefit of the sick.
- Slum Childrens’ Day through competitions (painting, singing, dancing etc.), movie shows, gifts, refreshments etc.
- Invite young students of Government schools to experience a University and get inspired to pursue higher education.
- Student volunteers take forward the ‘Swachh Bharat’ campaign for a clean and healthy India.
- Distribute clothes to the economically weaker sections through the Vastradaan initiative.
- Provide necessary amenities, medicines etc. to the old and the disabled inmates of the Old Age Home and be empathetic listeners and make them feel cared.
- Invite children from the orphanages and encourage them to participate in cultural programmes in the University.

These initiatives give our students an insight into the realities of life, instill in them a level of responsibility, trust and confidence about themselves and the community, and help them grow into role models, both as technocrats as well as caring human beings. NCU’s mantra is ‘Empowered individuals make an empowered nation.’

**NCU Alumni**

We have an active Alumni Association with a vibrant over 7200-strong alumni network. Besides an Annual Alumni meet, which is a regular feature; we have frequent interactions with our alumni, so as to inspire students to share lifelong commitment, pride, and passion for the University. We engage alumni as active members of the University community, and strive to develop programmes and services that add value to the alumni experience and to the life and work of the University. A one time alumni association fee of Rs. 1000/- is charged at the time of enrolment at the University to run the association.
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