VICE–CHANCELLOR’S REPORT 2018

Presented at the
Eighth Academic Advisory Board Meeting
(Friday, February 22, 2019)

Prof. H B Raghavendra
Vice-Chancellor
The NorthCap University, Gurugram
CONTENTS

01 List of Members of Academic Advisory Board
03 Our Rankings in 2018

Vice Chancellor’s Report
07 Action Taken Report on the Seventh Meeting-February 2018
08 Report on the initiatives taken by the University
13 Agenda Points
15 Our Schools
25 Students’ Strength/Intake
26 Academic Results
27 Research at the University
32 Collaborations
35 Infrastructure
40 Convocation & Scholarships
41 Students’ Activities / Achievements
49 Conclusion
51 Dean’s List of Students

Hon’ble Mr Satyadev Narayan Arya
Governor of Haryana
Quality Benchmarks

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

Ranked 2nd All India in the University Category in the Swachhta Ranking 2018 by MHRD, Govt of India

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

The University ranked in rank band 101 to 150 in the Engineering Category and rank band 151-200 in University Category in the NIRF Ranking released in April 2018 by MHRD

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

Ranked No. 1 amongst Top Engineering Colleges in Haryana and Ranked No.3 amongst Top Engineering Colleges of Eminence in India in the CSR-GHRDC Ranking Survey 2018 published in the July 2018 issue

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. 9 amongst Top Law Schools of Eminence, All India and No.1 in Haryana by GHRDC Law Schools Survey June 2018

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

Ranked No. 1 Private Engineering Institutes state Ranking Haryana and No 48 in all India Top 100 Private Universities League

 Ranked No. 1 in Delhi and Haryana and 55 all over India

NCU Ranked No. 1 amongst Top Law School in Haryana and ranked No. 9 among Law School of Eminence in all India

Hansa Research Survey May 2018

NCU Ranked among Top Private and Deemed Technical Universities All India
Members of the
Academic Advisory Board

Mr V Daulet Singh  
Chancellor - The NorthCap University

Prof. Prem Vrat, PhD, FNAE, FNASC  
Pro Chancellor, Prof. of Eminence & Chief Mentor - The NorthCap University

Prof. H B Raghavendra  
Vice-Chancellor - The NorthCap University

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

Dr Devi Singh  
Former 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 and CEO Hewlett-Packard (India)

Prof. K L Chopra  
Padma Shri, Former Director, IIT Kharagpur, SS Bhatnagar Awardee

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

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

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

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

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

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

Mr Satish Kaura  
Padma Shri, Chairman, Samtel Color Ltd

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

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

Dr PS Rana  
Chairman & MD, Pathera Developers & Former Chairman & MD, HUDCO
Prof. Karmeshu  
Prof & Dean, School of Computer & Systems Sciences, JNU, New Delhi, SS Bhatnagar Awardee

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

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

Prof. SG Deshmukh  
Prof. IIT, Delhi

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

Prof. PB Sharma  
PhD (Birmingham) FIE, FAeroS, FWAPS, Vice Chancellor, Amity University Gurgaon,

Prof. Pradeep Kumar  
Professor, IIT Roorkee, Former Vice Chancellor, Delhi Technological University, New Delhi

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

Prof. Kehar Singh  
Distinguished Research Prof, The NorthCap University, Ex-Dean & Emeritus Fellow, IIT Delhi, SS Bhatnagar Awardee

Mr Mangu Singh  
Managing Director, DMRC, New Delhi

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

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

Mr Bunty Peerbhoi  
Director, Maa Group Holdings

Mr Avidesh Mishra  
Founder & Member - Governing Body, The NorthCap University

Mr Shiv Saran Mehra  
Founder & Member - Governing Body, The NorthCap University

Mr NK Dewan  
Founder & Member - Governing Body, The NorthCap University

Col Bikram Mohanty (Retd)  
Registrar - The NorthCap University
Our Rankings in 2018

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 101-150 in the Engineering Category and in 151-200 in the University Category in the NIRF Ranking released in April 2018 by MHRD.

• The NorthCap University, Gurugram, has been ranked Second amongst the Cleanest Higher Educational Institutions in the Country in the Category 'University (Non Residential)'. The University won this award for Maintaining, Promoting and Encouraging the culture of 'SWACHHTA’ in Higher Educational Institutions in the Country.

• Ranked among Top 10 Private & Deemed Technical Universities All India and Best Engineering Institute in Haryana by The Week in their May 2018 issue.

• Ranked No. 1 Private Engineering Institute in the State of Haryana, No. 5 Private University in the State of Haryana and No. 48 in 'India’s Top 100 Private Universities League' by Education World in May 2018 issue.

• The NorthCap University was Ranked No.1 amongst Top Engineering Colleges in Haryana and Ranked No.3 amongst Top Engineering Colleges of Eminence in India in the CSR-GHRDC Ranking Survey 2018 published in the July 2018 issue.

• School of Law NCU, was Ranked No. 9 amongst Top Law Schools of Eminence, All India and No. 1 in Haryana by GHRDC Law Schools Survey June 2018.

• The NorthCap University was ranked No. 1 Engineering College in Delhi & Haryana and No. 55 All India in a survey of India’s Top Professional Colleges by Outlook in their June 2018 issue.
It is an honour and privilege for me to welcome our Hon’ble Chancellor, Shri V Daulet Singh, Founder Members of the Governing Body, Shri Avdhesh Mishra, Shri Shiv Saran Mehra, Pro-Chancellor and Chief Mentor Prof. Prem Vrat, distinguished members of the Academic Advisory Board and my colleagues to the Eighth Academic Advisory Board Meet.

Distinguished members, we at The NorthCap University, are greatly inspired by your involvement and contribution to the development of the University which aims to be known for learning innovations, academic excellence and socially relevant research outcomes. The overview of the year 2018 at NCU is given in the succeeding paragraphs.

The University has been ranked in rank band 101 - 150 in the Engineering Category and rank band 151-200 in University Category in the NIRF Ranking released in April 2018, by MHRD. It is also a matter of great pride that NCU has been adjudged the second best Cleanest University in the country promoting and encouraging the culture of Swachhata in the Higher Educational institutions in the country in 2018 by MHRD.

A comprehensive exercise was taken up across all Schools/Departments to review the curriculum so as to align it with the emerging industry requirements. To cater to societal demand and after conducting surveys, NCU has proposed to commence two new courses viz., B.A (Hons) in Economics and B.A (Hons) in Psychology from 2019-20. The proposal is under approval of Govt of Haryana. For meeting the industry need for specialized skills & offering more options to students in line with market demand, new specializations are being introduced from 2019-20 in the BTech programmes of Computer Science Engineering (CSE), Electronics & Communication Engineering (ECE), Mechanical Engineering (ME) and Civil Engineering.

To showcase students’ skills, abilities etc. to potential employers and also facilitate their development according to their aptitude & strengths, ‘E-portfolio’-initiative has been started at the University. It helps to identify students’ interests in the first year itself and encourages them to develop these areas to enhance their skill set in identified areas and for their holistic development. We have been able to achieve an enviable placement record, with companies offering both national and international placements. Over 90% of eligible students of Class of 2018 have been placed in core and other companies from the campus. To enhance placements, students’ employment readiness and gap analysis is being evaluated by companies such as ‘Aon CoCubes’ and ‘Youth4Work’ which do third party assessments for BTech graduating students, on behalf of hiring companies. In addition to providing student-centric deliverables like assessment scores and improvement areas, they also help to generate employment leads for the students with their empanelled companies.

Context Learning has been introduced to help bridge the divide between classroom learning and the rapidly changing real world of newer technologies. All schools/depts have associated industry experts with some of the identified courses. The University takes care of not only meritorious students but is also providing Value Added & Skill development Courses with training modules to weak/slow learners. This is helping in improving their skill
set and makes them feel good not only at the University but also enhances their employment opportunities. NCU has academic associations with leading IITs for 'Spoken Tutorials' and remote access to IIT lab facilities through their 'Virtual Lab' platform. Digital learning technologies which are a vital component to achieve enhanced programme offerings, quality and increased access anytime anywhere have been successfully offering blended learning with the use of Learning Management System (LMS), UGC MOOCs (in all programmes), National Programme on Technology Enhanced Learning (NPTEL), E-Pathshala, Swayam, Swayam Prabha among others.

NCU has exchange programmes with world renowned universities namely ITB Ireland, University of Chester, UK; University of Regina, Canada; Michigan Technological University (USA) and University of Dayton, Ohio (USA). This year NCU has collaborated with Shibaura Institute of Technology, Japan, for collaborative research, student and faculty exchange etc.; MAGES Institute of Excellence, Singapore, for guidance and training in new technological areas and Providence University, Taiwan, for joint research activities, publications, academic programmes etc. To facilitate students who want to study abroad and for student and faculty exchange, an Office of International Relationship has been established at the University this year. Students are supported for credit exchange, internships and project collaborations along with faculty through frameworks of MoUs. Recently the University has collaborated with National Technical Research Organization, New Delhi, for collaborative working arrangement on specific research and development projects.

Student internships and faculty externships were arranged in a wide spectrum of industries to make students and faculty aware about latest developments, futuristic needs of the industry. 15 NCU students successfully completed 100 hours of Swachh Bharat Summer Internship in rural areas in-between 1 May to 31 July 2018, launched by MHRD, GOI. They received Swachh Bharat Internship Certificates as well as two curriculum credits for it. To ensure better employment opportunities for students in both the local and overseas job market, the University in association with MAGES Institute of Excellence, Singapore provided six weeks of summer internship in Virtual and Augmented Reality to 20 students of BTech, CSE and ECE at NCU. The students developed commercially exploitable projects during this period, which were quite appreciated.

To encourage and recognize research, under the Vice-Chancellor’s Innovation Fund, projects were funded for faculty and students. Technovation – The Annual Project Day provided students a platform to showcase their innovative ideas in the form of projects. In the current year, nine research projects for a total amount of Rs 2.6 crore have been sanctioned by funding agencies and Rs 1.54 crore has been received till date. One DST (WOS-A) project of Rs 30.03 Lakhs has been completed in 2018. One DST (WOS-A) project of 27.80 Lakhs was technically approved on 20 Feb 2018. In addition to these, 12 research projects have been submitted to various funding agencies. 126 doctoral students are currently registered with the University to carry out their doctoral dissertation research work viz., SOET – 98, SOL - 13, SOM - 15. Eight students have submitted PhD thesis and five have submitted PhD synopsis, during the year.

The Central Research Facility, relevant labs and workshops have been progressively upgraded and research scholars encouraged to make use of these facilities throughout the year. The Incubation Centre has taken up an Online Food Aggregator project in collaboration with a start-up company. A Tinkering Lab is being nurtured where students come together, under one roof, to invent, innovate and give shape to their new ideas work on projects of their interest and create artefacts that would bring them satisfaction and
develop their creative skills. The NorthCap University Testing Center (NCUTC) has been reaccredited by NABL for Mechanical Testing of building materials for 2018-19.

During the reporting year NCU collaborated with reputed industries such as Daikin Air-Conditioning India Pvt Ltd to set up the Daikin Centre for Excellence in the Dept of ME; Space Application Centre, ISRO, to set up the NavIC Lab at the University; Maruti Center for Excellence (MACE); BMW for their ‘Skill Next’ programme and some more.

During the reporting year, the University also set up a ‘Thought Lab’ to reduce negative energy and stress, and for developing a positive attitude in students and staff. Working of professional societies has been streamlined so that a maximum number of students benefit by participating in their co-curricular events and activities. To promote the involvement of students in extracurricular activities and nurture their leadership skills, Students Activities and Leadership (SAL) Committee has been established. It provides a platform to the students to showcase their skill and talent in beyond academic activities and acknowledges their achievements. This year the University conducted a ten day Induction Programme for new students from 23 July to 3 Aug 2018 to help them adjust in the new environment and promote bonding amongst students, freshers and faculty members. Another initiative taken during the year was to decentralize governance of the University for which Sub-Committees have been established having representation from the Management, faculty and students to oversee academic and non-academic functions and evolve and take action as and when required, without delay. The University recently started a Parent Information System which keeps the parents informed about the progress of their wards.

To keep our faculty abreast with emerging techniques and technologies, a comprehensive faculty upskilling programme has been taken up. Under this programme, faculty members have attended a design thinking workshop and some of them have undergone hands on training in relevant new technology areas, conducted by invited industry experts.

NCU is an environmental friendly institution. Campus-wide initiatives are committed to the green movement such as energy conservation; use of solar energy with the installation of a 150 KW rooftop solar PV system with a net metering facility; a comprehensive rain water harvesting system; sewage and waste water treatment plants etc. To increase its green footprint, a vibrant and green garden is maintained. For the 17th consecutive year the University has been declared the winner of the HUDA garden competition in Gurugram. The University understands its responsibility towards society and practices it through its social outreach activities and by awarding fee concessions. It disbursed over Rs 1.47 crores to 208 students under its Scholarship programme in January 2019. NCU continues to sensitize and mobilize community participation by conducting programmes such as Flood Relief, Swachhata Abhiyaan, Blood Donation, Organ Donation, Road Safety Awareness, care for the disabled and marginalized etc.

The NorthCap University is open to students, faculty and staff of all backgrounds and all states, who demonstrate their merit. There are 2800 students, 162 faculty members, 66 technical and 44 admin staff. The University’s rich intellectual wealth comprises of some of the top academicians and industry leaders from India and abroad. We have invested in hiring superior quality faculty during the year.

The Academic Advisory Board is a vibrant discussion forum, bringing together some of the best academicians, educationists and industry leaders. This day means much to us and we look forward to a meaningful exchange of information, knowledge, experiences, views, directions, guidance and mentoring from each one of you to help make the University become more contemporary and relevant at all levels.
Action Taken Report on the Seventh Academic Advisory Board Meeting held on 24 Feb 2018

On the views expressed by the distinguished members during the seventh Academic Advisory Board Meeting, the following actions have been taken:

• Process and procedures for conduct of Practical classes have been revisited by the departments and certain new experiments and also mini projects have been introduced in lab work to generate interest amongst the students. More focus on context & experiential learning has been emphasized in various subjects.

• Quiz at the end of Practical classes have been introduced to gauge the assimilation of the course content by the students.

• Smart India Hackathon - To harness the creativity and expertise of students, 84 undergraduate Engineering students of the University comprising of 14 teams will participate in the Smart India Hackathon competition, being organized by MHRD, Govt of India. Students will get the opportunity of working on challenges faced by the private sector organizations and create solutions for them.

• Topics such as IT Act, IPR & Copyright have been included in the course content of the undergraduate Law programmes.

• Faculty members have started utilizing the resources allocated from the University for attending seminars and conferences, both at the National & International level. Some Liberal Arts courses have been started in a phased manner, in the School of Management.

• Commitment from each faculty of Departments/ Schools:
  To ensure full commitment and participation of all faculty members in realizing the vision, growth and development of the University, all Departments have laid down their goals and targets for the year. These targets are based on the individual targets (one year deliverables) given by each faculty. Therefore, accountability for the work to be carried out by each staff member from the beginning of the academic year is fixed.

• Students are being motivated to take up industry internship from the second semester onwards.

• The Quizzing Society ‘Minerva’ was set up at NCU in Aug 2018. It aims to inculcate curiosity in students and encourage them to explore new frontiers of knowledge.

• More emphasis is on experiential learning and practical work, therefore, more project based learning has been introduced and credits for project work and student industry internship increased. Project learning methodology, with association of industry experts, has been introduced in the course curriculum to facilitate students to develop a creative mindset and be directly deployable by industry.

• Career Counselling was done in a continuous manner in different Schools across the National Capital Region throughout the year. Students appearing for interviews are being guided to remain grounded while appearing for interviews.
Report on the initiatives taken by the University

New programmes at NCU – Two new programmes are being launched in the School of Management viz. BA (Hons) in Economics and BA (Hons) in Psychology to provide more diverse portfolio of programmes and keeping in view the market demand for these courses.

Curriculum Development - Curriculum development is a regular process at NCU and is done keeping in view the feedback and suggestions received from various stakeholders like students, faculty, AICTE/UGC/BCI guidelines, industry requirements. The revision also takes into consideration some of the best practices being followed by leading universities. The recent revision of curriculums for various programmes was done in June 2018 which has been introduced from the July 2018 session. Focus is on enhancing employability and deployability of students, develop creative thinking, problem solving and lifelong learning skills in students in addition to the current technology skills and other soft skills.

Some of the highlights of the revised curriculum are:

- More emphasis on experiential learning and practical work and project based learning
- Credits for project work and student industry internship increased
- Courses on problem solving, creative writing, entrepreneurship in UG programmes & Research Methodology introduced in PG programmes
- Foreign Language course compulsory in all programmes to give global perspective to students
- General Proficiency course compulsory in all programmes to develop and recognize out of classroom development of students through co-curricular and extracurricular activities
- MOOCs have been made mandatory in all programmes to develop self-directed lifelong learning. Virtual Labs, QEEE and Spoken Tutorial programmes from IITs have also been integrated
- Concept of theory and labs has been integrated into project based learning by laboratories supporting dedicated and interdisciplinary experiments to deliver project based learning effectively. Integrated out of classroom learning like professional society work with the curriculum to encourage creativity and innovation
- Holistic development of students through courses on Human Values, Professional Ethics, developing concern for the environment and introducing other subjects of social interest and personality development, spirit of teamwork through project work and awarding credits for innovative work
- Commonality of the first year course in BTech programmes to facilitate easy migration of students from other universities and would offer more flexibility to students joining these programmes in terms of change of branch after first year
- Upskilling and Reskilling of the faculty has been taken up by the University in all the Departments to utilize their full potential by their own and other departments. Faculties have been sent to many outside workshops, and inhouse Development Programmes were also conducted to enhance their deliverables.
Introduction of new specialisations in BTech programmes

Based on the employer feedback, cater to the requirements of current and future job market and offer more options to students, several new specializations in emerging technologies have been introduced in various BTech programmes. These include areas like Data Science & AI, IoT and cloud computing, cyber security, full stack development etc. in CSE programme, VLSI design & embedded systems and IoT in ECE programme and so on. Industry focused curriculum and syllabi have been prepared and faculty upskilling is in progress for launching these programmes from July 2019.

Value Added Courses & Special Skill Courses

The courses / modules which are not included in the curriculum but are necessary in several verticals of the industry are included under this head and integrated with co-curricular and General Proficiency activities. These modules would help in hands-on project and placements viz. some of the skill development modules conducted include VLSI Design, Primavera, Android / mobile app, CAD & 3D printing, air conditioning & refrigeration (Daikin) & CCNA certification etc.

NavIC Lab in collaboration with ISRO

NavIC Lab has been established by SAC-ISRO, Ahmedabad, at our campus last year. Student trainees & research scholars are carrying our research activity promoting multi-disciplinary research in the area of satellite navigation. Two project proposals to work jointly on ISRO sponsored projects are being prepared for submission to ISRO.

Tinkering Lab

Tinkering Lab is a collaborative work area packed with components, equipment, tools and software where innovative minds can play with technology. It is based on the values of creativity, critical thinking, innovation and hands-on experience. Students of any discipline with a bend for invention and innovation can come together under one roof to give shape to their new ideas. They can design, create and engineer prototypes, new products etc. Over 100 students have utilized this facility and currently working on five major interdisciplinary projects.

Thought Lab

The ‘Thought Lab’ a pilot project of NCU in collaboration with the Education Wing of RERF (a sister organization of Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalay) was inaugurated on 20 April 2018. NCU is the first university in Northern India to set up a ‘Thought Lab’ a novel concept for stress management and for creating pure, positive and creative thoughts in individuals. It is a unique project aimed to harness the hidden and still untapped inner power of the extra-ordinary resource i.e. the Mind of the individual. 66 students are undergoing a workshop along with five faculty members to understand the concept of Stress Management.
Incubation Centre
The Incubation Centre at The NorthCap University has been established to advance research, innovation primarily in the field of software products and apps and thus provide opportunities to students to innovate and invent, thereby building special technical skills in them and hand-hold to meet their entrepreneurial dreams. The vision of the Centre is to provide a research based platform for incubation across disciplines thus ultimately serving the industry and the society. During the last year the Centre has taken up an Online Food Aggregator project in collaboration with a start-up company, City Innovates Pvt Ltd, Gurugram. Its website has been launched which details the speciality items of each state. University has also identified several student projects to incubate further through University’s internal tech fest ‘Technovation’.

Student E – Portfolio Generation
E-portfolio is a unique initiative of the University to identify students’ interests in the first year itself and encourage them to develop these areas. Students shall continue to develop this portfolio during their stay at NCU and also record their achievements and rewards using multimedia so as to showcase their portfolio to potential employers for enhanced employability. It will work as a complete repository for a student’s resumé along with all her/his academic documents which can be kept by the student for future reference purpose also. This activity is being coordinated and overseen by Student Mentors in association with SPA. About 600 first Year students were initiated into preparation of their E-portfolio during the induction programme, on pilot basis. It is expected that Portfolio helps University to strengthen and compliment academics and personality development. The complete software for the web portal is under development and shall be ready by Feb 2019.

Parent Information System
The University recently started a Parent Information System which keeps the parents informed about the progress of their wards. A portal has been set up which provides information on the academic progress and other achievements/activities of students including extra and co-curricular activities and so on. Corrective actions if required can be taken in consultation with the faculty. Parents have been informed of this facility through SMS, website etc.

Parents are also being made aware of this facility through parent teacher meetings etc.

Office of International Relationship
To increase diversity on the campus and to attract the best talent, Pan-India and globally, the University has several Partnership Agreements with foreign universities. To facilitate students who want to study abroad and for student and faculty exchange an Office of International Relationship has been established at the University this year. The major activities of this Office of International Relationship include:

• Students’ guidance and admission abroad
• Study India Programme (Guidance to international students for admission to NCU)
Further, the Office shall help creating alumni connect, career counselling activities, research and academic collaboration including Study India Programme (Intern) and feel good factor for both past and current students.

**Infrastructure enhancement**

Based on regular feedback from the 11 Sub-Committees, action taken by the University is as under:

- Two Commercial and Industrial Treatment Systems (RO) were installed at a cost of Rs 5.90 Lakhs. Installation has considerably enhanced the quality of water by reducing the TDS.

- Installation of a new Sound System in the Auditorium - A JBL Sound System to augment the current sound system was installed to ensure compatibility of old/new equipment. A sum of Rs 3.00 Lakhs were expended.

- Upgradation of Wi-Fi Network - Wi-Fi network was upgraded as recommended by the newly constituted IT & Related Sub-Committee and a sum of Rs 46.00 Lakhs was approved.

- Installation of new Chiller Plant - To meet the air conditioning needs before the onset of the summer season, the University installed a new chiller plant in the Campus involving a capital expenditure of Rs 60.00 Lakhs.

- Iron benches on the Playing field - To facilitate students watching the matches on the playing ground, new benches were installed with a capital expenditure of Rs 4.00 Lakhs.

- Purchase of latest Computers The University purchased latest computers for a sum of Rs 24.78 Lakhs as a plan for upgrading to latest technology for students. The new computers facilitate latest usage of software and are accessible to students who are keen to learn Augmented Reality and Gaming programmes.

**Partnership Agreement with the industry and academic institutions**

- **Daikin Centre of Excellence**

  An MoU was signed between NCU and Daikin Air-Conditioning India Pvt Ltd (DAIPL) to establish a ‘Centre of Excellence’ (COE) on HVAC Systems at the University. Experts from DAIPL will impart practical skill training to the faculty and students on advanced technologies in Heating Ventilation and Air-Conditioning (HVAC) System (using air-conditioning units supplied by DAIPL) and industrial exposure to the students within the campus. The CoE is one of its kind to be set up by the Japanese Company, in any educational institution in Gurugram. The Centre is already operational and providing training.

- **MAGES Institute of Excellence, Singapore**

  NCU signed a Partnership Agreement with MAGES Institute of Excellence, Singapore. With this Agreement both parties bring on board their immense strengths, committing to raising standards in education and preparing the next generation of students for jobs of the future.
MAGES Institute of Excellence is a private education institution based out of Singapore which provides high quality tertiary level coaching with rapidly developing media, animation and gaming industries and aims at delivering a complete learning experience in Game Designing technology featuring programmes.

- **Shibaura Institute of Technology**
  In its pursuit of academic excellence and to provide global exposure to students and faculty, NCU signed a Partnership Agreement for academic exchange and cooperation with Shibaura Institute of Technology (SIT), Tokyo, a leading university of Japan, which firmly maintains in the philosophy 'learning through practice'. Both the universities have agreed to undertake joint collaborative research, exchange of students and faculty, exchange of information and publications etc. SIT maintains a strong industry academia relationship with more than 250 state-of-the-art laboratories engaged in several multidisciplinary projects. NCU being a partner university of SIT, students from NCU shall get full programme and tuition fee waiver.

- **Providence University , Taiwan**
  The NorthCap University (NCU), Gurugram, signed Partnership Agreement with Providence University, Taiwan, one of the oldest universities in Taiwan. Both universities have agreed to undertake joint research activities and publications, participation in seminars and academic meetings, exchange of academic materials in the areas of computer science, Information Technology and liberal studies.

- **National Technical Research Organization (NTRO)**
  The University signed an MoU with National Technical Research Organization, New Delhi. The MoU shall provide collaborative working arrangement on specific research and development projects. In addition, NCU interns may be considered by NTRO for involving young talent in relevant fields. A few interns have already been taken by NTRO for working on their projects.
Agenda Points

The following agenda points are given for discussion and valuable suggestions & inputs from the esteemed members

**Agenda Point 1:**
**Introduction of Project Based Modular Teaching**
NCU has introduced project based modular teaching in a phased manner in a few courses in the Departments of CSE, ECE & CEE. Modular teaching helps students work with industry associates on industry projects and also to apply knowledge learned in their professional life, enhancing their employability. In addition, all undergraduate Engineering departments have planned to launch various specialized courses from the Academic Year – 2019-20.

**Agenda Point 2:**
**Integration of Curricular & Co-curricular and General Proficiency Activities**
Integration of Curricular / Co-Curricular activities with the framework of the curriculum. Alternative learning system is a non-formal system of education to provide an alternative path of learning. It is learning through experience & is more specifically designed in doing 'Hands-on Learning'. Integrating co-curricular into content courses builds skills, confidence and expectation of students. Correct blend of integration gives the students the opportunity to practice and develop attitudes such as curiosity, self-direction and self-learning and gives a ‘feel good factor’ and enriches student experience.

**Agenda Point 3:**
**Incubation / Innovation Centre**
Incubation / Innovation Centre at NCU provides a research based platform for incubation across disciplines, thus serving the industry and society. This helps develop entrepreneur skills in the students. A few projects have been undertaken at the incubation centre. However, broadening of project base and more participation from industry required.

**Agenda Point 4:**
**Attracting & Retaining of Talent InThe University**
Necessity to attract and retain high-performing faculty and staff is both a concern and a challenge for a private University. While retaining faculty to maintain continuity in their area of expertise, it also eliminates the burden of recruitment, selection and other expenses that would otherwise be incurred in replacing them. We would request our esteemed members to suggest a general retention strategy for our faculty members.

**Agenda Point 5:**
**Internationalization of Higher Education**
University in its vision has stressed the need to be known globally for learning innovations, academic excellence and socially relevant projects. NCU is committed to Internationalization of Higher Education and to process post-secondary education, research activity and recruit foreign students to secure a national profile and build international reputation. Academic strategies to strengthen Internationalization of Higher
Education in the University aims to focus on academic programmes, research and scholarly collaborations, external relations and extracurricular activities.

We seek your views and recommendation in particular with regard to Internationalization of Higher Education at NCU.

**Agenda Point 6:**
**Improve Quality Admissions**

Students are key to the growth of the University. The first touch point for the student to enable his/her interest in the University is through the website. Strong responsive website with persuasive programme/experience, interesting social media posts, review and ratings are some of the areas NCU has taken up in the last one year so as to improve the quality of students applying for admission to the University.

However, this is an area of concern and members are requested to share their experience and views to improve the quality of admission to the University.

**Agenda Point 7:**
**Sponsored Projects**

Research Development and Industry Liaison (RDIL) Cell is the nodal agency in the University to monitor and advise faculty on various research activities. In 2018-19 research projects for a total amount of Rs. 2.6 Crore have been sanctioned by funding agencies and Rs. 1.54 Crore has been received till date. One DST (WOS-A) project of Rs. 30.3 Lakhs has been completed in 2018. In addition to these, 12 research projects (January to December 2018) have been submitted to various funding agencies.

Members are requested to suggest ways to improve sponsored activities at the University.
Our Schools

In keeping with the changing demands in education, NCU offers a redesigned curriculum that prepares students for the future workplace. The University has three schools viz., School of Engineering and Technology, School of Management, School of Law, apart from a School of Professional Attachment and a Centre for Languages Learning. Academic life is full of opportunities that offer horizontal and vertical mobility and we also ensure the professional development of our students through engaging modules in personal development, communication, and leadership.

School of Engineering and Technology

The School of Engineering and Technology (SOET) is the largest component of NCU’s academic arena with its five academic departments – Applied Sciences, Civil and Environmental Engineering, Computer Science & Engineering and Information Technology, Electrical, Electronics & Communication Engineering, and Mechanical Engineering. The strategic goals of the School are to increase the visibility and impact of the Engineering Technology programme both at the state and national level, as a hub for state-of-the-art learning and cutting edge research; maintain high quality diverse faculty and students in the University at all times; cultivate strategic alliances with partner universities, major industries, both at the national and international level and promote research in order to facilitate students to fulfil their entrepreneurial dreams.

Programmes

The following BTech programmes will be offering specializations from 2019-20:

• Computer Science & Engineering (CSE) with specialization in
  - Full Stack Development
  - Cyber Security
  - Internet of Things (IoT) & Cloud Computing
  - Data Science and Artificial Intelligence (AI)
  - Game Tech, Augmented Reality (AR) and Virtual Reality (VR)
• Electronics & Communication Engineering (ECE) with specialization in
  - Internet of Things (IoT)
  - Embedded Systems and VLSI Design
• Mechanical Engineering (ME) with option of specialization in
  - Thermal Engineering
  - Mechanical Engineering Design
  - Industrial and Production Engineering
  - Automobile Engineering
• Civil Engineering with specialization in
  - Smart Infrastructure Development
  - Construction and Project Management

The new scheme of study (2019-20) now incorporates more credits for project based learning and has provision for MOOCs, learning through Tinkering and General Proficiency for promoting self-learning and enhancing employability of students.
Mapping of Co-Curricular Activities with Courses was introduced in the Dept of EECE.
- In the Jan-June 2018 semester the following courses were linked with co-curricular activities:

| S. No. | Course                      | Co-curriculum Activities Identified For Inclusion In Continuous Evaluation                      |
|--------|-----------------------------|-------------------------------------------------------------------------------------------------
| 1      | Digital Signal Processing   | SPIE/IEEE (Active participation)                                                                 |
| 2      | Digital Electronics         | Project through Maker’s space/IEEE                                                              |

In the July-Dec 2018 semester the following courses were linked with co-curricular activities:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course</th>
<th>Co-curriculum Activities Identified for inclusion In Continuous Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Analog Electronics</td>
<td>IEEE/IEI society</td>
</tr>
<tr>
<td>2</td>
<td>FAW</td>
<td>SPIE, National/International competitions</td>
</tr>
<tr>
<td>3</td>
<td>BEEE</td>
<td>IEEE/IEI/SPIE society, National/International competitions</td>
</tr>
<tr>
<td>4</td>
<td>DCS</td>
<td>IEEE/IEI society</td>
</tr>
<tr>
<td>5</td>
<td>AWP</td>
<td>SPIE, National/International competitions</td>
</tr>
<tr>
<td>6</td>
<td>OCS</td>
<td>SPIE, National/International competitions</td>
</tr>
<tr>
<td>7</td>
<td>IoT/Machine learning</td>
<td>IEEE/IEI society</td>
</tr>
</tbody>
</table>

In the Spoken Tutorial Project about teaching and learning a particular FOSS (Free and Open Source Software), 71 students of ECE 4th Sem enrolled for JAVA and 30 students of ECE 6th Sem enrolled for Python. Workshops of these subjects were conducted in the Dept of EECE. Five students of ECE 4th Sem were offered internships at IIT Bombay under FOSS. CEE student successfully completed the 12 week (Jan-April 2018) course on ‘Soil Mechanics/Geotechnical Engineering’ conducted by NPTEL. Experts from IIT Delhi conducted a workshop on Virtual Labs in Jan 2019 for BTech 1st year ECE, CEE, and ME students. Students of SOET excelled in GATE 2018 and have carried forward the legacy of NCU as a leader amongst Private Universities. AIR-94 was achieved by Akshay Bhatia and Percentile 99.65 by student Himanshu Singla. CSE students took part in the Cyber Security Learn-A-Thon by CISCO Networking Academy held from 16 to 30 July 2018. 31 students completed and passed the course on Cyber Security Essentials for the duration of the Learn-A-Thon. The Dept of CSE&IT conducted a summer school for CCNA R&S: Introduction to Networks from 15 June-16 July 2018 in which 55 students enrolled and 54 students successfully completed the course and are eligible to attain the CISCO Certification for Module-1. 33 students have enrolled for the certification course of CCNA Module 2 which commenced in Aug 2018.

To open up more employment opportunities for slow learners, special skill development courses were offered by various departments such as Special Software Package Course MEV 220, was conducted for 2nd Year ME students. Three modules of ANSYS software package were covered in the course conducted from January to May 2018 and were attended by 76 students. A total of 75 students successfully completed the course.

**Industry-Academia Engagement**
Daikin Airconditioning India Pvt Ltd (DAIPL), a 100% subsidiary of Daikin Industries Ltd, Japan, has partnered with the Dept of Mechanical Engineering, to set up its 16th Centre of
Excellence (CoE) which was inaugurated at the University on 12 Nov 2018. The Centre showcases Daikin’s futuristic products and major products in HVAC along with industry tool kits. Experts from DAIPL are imparting training to the faculty and students on advanced technologies in Heating Ventilation and Air-Conditioning (HVAC) System using air-conditioning units supplied by DAIPL. In Dec 2018 DAIPL conducted a workshop for the faculty and technical staff in the CoE. An MoU was signed between NCU and Maruti Center for Excellence (MACE) in April 2018 to collaborate in the field of practical and theoretical trainings, projects during students’ internships, technical seminars and guest lectures. An FDP was conducted on ‘Mechatronics’ for the faculty at MACE Manesar in Dec 2018.

In the last one year the Dept of ME has been developing two socially relevant industry sponsored projects:

- ‘The Mango Project – Development of electric vehicle’ sponsored by Life CNC Tools, Faridabad, for Rs 1.5 Lakhs: The two-wheeler has been developed and is presently under testing. The project will be ready for delivery by March 2019.

- ‘Structural analysis of electric 3W chassis’ sponsored by Terra Motors, Gurugram, (Japan’s No1 electric vehicle company) for Rs 5.33 Lakhs: Experimental investigations were carried out on the three-wheeler chassis for different loading conditions and data was subsequently given to Terra Motors with meaningful recommendations and suggestions for improvement.

**Consultancy Details**

Following Consultancy projects were undertaken at SOET in aforesaid period:

<table>
<thead>
<tr>
<th>S. No</th>
<th>Details of the Consultancy</th>
<th>Title of Consultancy</th>
<th>Name of Faculty and Dept</th>
<th>Number of consultancy</th>
<th>Amount Received (Rs/-)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CISCO (CCNA Module)</td>
<td>CCNA Module</td>
<td>CSE</td>
<td>1</td>
<td>1,94,000</td>
</tr>
<tr>
<td>2</td>
<td>DRDO Defense Electronics Research Laboratory (DLRL, Hyderabad)</td>
<td>Study of Precise Time synchronization between Clocks in a Dynamic network of Sensors</td>
<td>ECE (Ms. Kusum Grewal Dangi &amp; Prof. Amitava Sengupta)</td>
<td>1</td>
<td>Presentation on 7 Aug 2018 (Amount to be received: Rs 8.24 lakh on completion)</td>
</tr>
</tbody>
</table>

Students were on internships and faculty members were on externships at various reputed companies/industries and gained real-world industry experience and learnt the latest technological advancements in hardware, human-ware and software. 13 students from SOET successfully completed ‘Swachh Bharat Summer Internship - 100 Hours of Swachhta’ launched by MHRD, GOI in rural areas from 1 May to 31 July 2018. With a view to increase awareness of NCU and its academic programmes, outreach activities were organized in educational institutions in Delhi-NCR.
The NorthCap University Testing Centre (NCUTC) is conducting a Consultancy Project for Mix Design of OPC & PPC.

The NavIC Lab at the University is recording data from IRNSS satellites 24/7 and after analyzing the data sending it to SAC-ISRO, Ahmedabad, on a weekly basis. Three research scholars are working in the lab in the areas of Time Synchronization technology, Positioning accuracy, Study of ionosphere, IRNSS disciplined Oscillator, Common view time transfer, Difference in positioning accuracy with and without 7th satellite IRNSS-1I.

Student Chapters of reputed professional societies continue to play a big role in students’ leadership and professional development. American Society of Quality (ASQ) Student Chapter organized a Quality Conclave on the theme ‘Leadership for Quality’ at the University in Feb 2018. NCU students participated and won laurels for the University in several events in the CSI Regional Student Convention (RSC-2018) in Gurugram, in Feb 2018. OSA Student Chapter organized science, general awareness and outreach programmes in several schools in Delhi-NCR. IEEE Society in association with Advanced Technologies, Chandigarh, organized a workshop on ‘Wireless Sensor Networks’ in April 2018. The Mathemactive Society continued to organize quiz competitions to hone the logical ability, accuracy and speed of students apart from basic maths concepts. Student Chapters of the Institution of Engineers (India)-IEI Society have been established in the Departments of EECE, CSE&IT, CEE and ME in June 2018.

Partnership Agreement

During the reporting year NCU collaborated with various institutions viz., MAGES Institute of Excellence, Singapore; Shibaura Institute of Technology, Japan; Providence University, Taiwan; and the National Technical Research Organization, New Delhi. In March 2018, NCU became a lifetime member of the Indian Concrete Institute, Chennai. CEE students were invited for an internship on ‘Internationalization and Research Collaboration Program’ at Linton University College, Negeri Sembilan, Malaysia, from 10-24 Dec 2018. This internship programme was aimed at initiating collaboration between NCU and Linton University College, Malaysia, for students and faculty exchange programme as well as research activities. CEE student interned at Bhabha Atomic Research Centre (BARC), Mumbai, between Dec 2018 - Jan 2019 under the guidance of Dr Umesh Kumar, Head, Industrial Tomography & Instrumentation Section, IRAD, BARC. NITTTR Chandigarh, conducted various training programmes for faculty members both at the University as well as Chandigarh.

International Conference on Computational Intelligence and Data Science 2018 was jointly organized by The Northcap University and University of Dayton, Ohio (USA) in April 2018. The keynote lecture was delivered by Dr Nilufer Onder, Michigan Technology University (USA). The National Science Day was organized on 28 Feb 2018. UG, PG and PhD students of the University demonstrated their innovative ideas/research findings in the form of science projects, models and posters.

Department of CSE&IT took the initiative to spread awareness about the latest type of cyber-attacks and how to counter them by conducting workshops at different universities and institutions free of cost. The objective of these workshops was to equip students with the tools necessary to conceptualize the cyber issue, bolster formal cyber security education programme and conduct high end training on cyber security.
The School of Management draws upon the faculty resource and knowledge base of the School of Engineering & Technology and School of Law so that its students get holistic pedagogical support, which is vital for today’s fast changing business world.

The School is successfully running the three-year UG programmes of BBA, BCom (H) and two year full time MBA programme. The PhD (Management) programme is progressing well. A few major changes have been introduced such as Liberal Arts course in the BBA programme; Computer Skills, CSR and Sustainability, E-commerce courses across UG programmes and General Proficiency across all programmes at SOM. A three year BA (H) programme in Economics and Psychology is being introduced.

A six day Faculty Development Programme was organized on ‘Capability Building Leading to Better Performance’ in June 2018. A faculty development workshop on ‘Business Analytics Using R’ was organized in July 2018. The key objective of the workshop was to familiarise the faculty with the basic skills of R Programming and its implementation in predictive analytics. A Parent Faculty Interaction Meet was organised in SOM in Feb 2018. Parents came in large numbers and discussed the performance of their wards with faculty mentors. An orientation session for summer internships was organized at SOM in May 2018. Students of BBA and BCom 4th Sem and MBA 2nd Sem were briefed about the entire process of internship, starting from offers till submission of report.

Sponsored and collaborated by Association of Indian Universities (AIU), SOM organized a National Seminar on ‘Women as Critical Partners in an Egalitarian Society: An Evaluation of the Current Status in India’ in March 2018. The technical sessions included paper presentations by academicians and administrators from across the country. There were panel discussions as well as a training session on ‘Gender Audit: Measures for Sensitization in Campuses’.

A Road Safety Awareness Session in collaboration with the Road Safety Cell, Delhi Traffic Police, was organized in April 2018 and Management Fest ‘Mindkraft’ – a fusion of skill, will and thrill in May 2018. Students from various schools and colleges enthusiastically participated in it.

Entrepreneurship Development Cell

Two Entrepreneurship Awareness Camps (EAC) sponsored by Entrepreneurship Development Institute of India (EDII), Ahmedabad, were organized in March 2018 to motivate students towards entrepreneurship. 105 students participated in the first EAC and 87 in the second EAC. The topics discussed were related to Rural Marketing, IPR, Business Continuity Planning, Creativity and Innovation.

Societal Activities

Students participated extensively in community service during the year. A team of five BBA students volunteered for summer internship at CRY and served the community at Gurugram. Two students from the School successfully completed 100 hours of Swachh Bharat Summer Internship launched by MHRD, from 1 May to 31 July 2018 in selected villages. They organized rallies, poster competitions, screened movies and through door to door visits created awareness about the importance of sanitation, hygiene and solid waste management.

Undergraduate students are pursuing higher studies from reputed institutes in India and abroad such as Masters in Applied Finance, MSc in Business Analytics (with scholarships) from Sydney Business School, Australia; University of Wollongong, Dubai; IBS, Hyderabad and Business Schools in France and Australia.
School of Law

The School of Law (SOL) strives to provide transdisciplinary legal education with a view to producing world-class legal professionals and scholars ready to face the new challenges and dimensions of internationalization of the legal profession. SOL continued to achieve excellence in legal education through professionally relevant academic programmes, experienced and qualified faculty, interactive pedagogy and clinical training. SOL offers three programmes viz., the five-year integrated BBA-LLB (Hons) at the undergraduate level, a one-year LLM with specialization in Human Rights, Corporate Law and Intellectual Property Rights (IPR) at the postgraduate level, and a full-time PhD programme at the doctoral level.

During the reporting year the School of Law made all-round progress in curricular and co-curricular activities. SOL was awarded 1st Rank in Haryana by Competition Success Review and 8th Rank amongst Best Law Schools in the Northern Region by Global Human Resource Development Centre, New Delhi.

To foster research, SOL published NCU Law Review Vol. I, No. 1, March 2018, (ISSN 2581-7124), the only academic journal of the University. It is a peer reviewed biannual academic publication of the Centre of Post Graduate Legal Studies (CPGLS), School of Law. Scholars from various well-known institutions have contributed to this issue of the Law Review and it serves as a forum for the promotion and circulation of views on contemporary legal issues among members of the legal profession, academicians and students. Centre for Development in Energy and Environment Law (CDEEP) submitted a research proposal which was accepted by NLSIU, Bangalore, for conducting two-day workshops on ‘Strengthening the Implementation of the Biological Diversity Legal Regime’ with special focus on ‘Access and Benefit Sharing’ with a grant of Rs 6 Lakhs. The courses designed and implemented at CDEEP from Jan-June-2018 were Clean Energy and Sustainability Laws (Programme Elective), Water Laws and Resource Management (Open Elective for all Schools).

The School of Law organized the ‘International Conference on Interface between Technology and Law: Moving towards Digital India’ in Nov 2018. The conference was inaugurated by Mr Jozef Drofenik, Ambassador and Plenipotentiary, Republic of Slovenia, accompanied by First Lady Dr Ala Adamia, Romania.

The 5th Edition of NCU National Moot Court Competition (NMCC) on Environmental Law was organized in April 2018. It is one of the rare competitions in India which is being held on a pressing issue of environmental law with changing theme every year for which it has also been conferred with the title of ‘Indian Stetson’. A team of eight NCU Law students participated in the 15th Annual Willem C Vis (East) International Commercial Arbitration Moot Competition held in March 2018 in Hong Kong. SOL organized ‘Access to Justice’ the 4th Edition of the National Client Consultation Competition (NCCC) in Sept 2018 to promote greater knowledge and practical skills among student advocates in the preventive law and counselling functions of law practice. Students of BBA-LLB (H) won the Regional Level 16th All India Moot Court Competition for Students-2018 organized by the Northern India Regional Council of The Institute of Company Secretaries of India in Aug 2018.

SOL’s Legal Aid Clinic in association with the District Legal Services Authority (DLSA), Gurugram, is conducting educative and informative programmes on issues such as NALSA
(Legal Services to victims of Acid Attacks) Scheme, 2016, NALSA Scheme (Legal Services to victims of Drug Abuse and Eradication of Drug Menace) Scheme, 2015 and Pre-Marriage Counselling. The Legal Aid Clinic is also providing legal services to marginalized sections. The Centre of Intellectual Property Rights Advocacy, Research and Training (CIPRART), SOL, in collaboration with Trademarkclick.com and Latestlaws.com organized a workshop on the theme ‘Why Intellectual Property is must for all?’ in Aug 2018. CPGLS organized a six-day Faculty Development Programme in June 2018.

BBA-LLB students put up an admirable performance in LLM, CLAT-2018 conducted for admission to the National Law universities across the country. They achieved All India Ranks and are pursuing higher studies at reputed universities. Students of Class of 2018 received lucrative job offers at reputed law firms, corporate offices and LPOs with one of the highest CTC offered to any graduate/post-graduate from The NorthCap University. One student secured admission to LLM in the prestigious University College London (UK).
SPA is committed to ensure that each student is carefully trained to shine in the global market. SPA continued to put in concerted efforts for nurturing students from induction to placement, helped to build and enrich the potential of each student and plan their careers better, made them industry ready for a smooth transition from campus-to-corporate.

Relentless efforts of SPA resulted in 97% placements of eligible students from School of Engineering & Technology, 94% from School of Management and 60% from School of Law (Class of 2018). Placements were achieved in premier companies such as Deloitte, Optum-UHG, Ernst & Young, Mckinsey & Co, British Telecom, Ericsson, Fidelity, Libsys, Newgen, Lutron, Protiviti, CB&I, HDFC, Samsung Engineering, Reliance Retail, AVL etc. Currently there are 180 companies recruiting from the University.

A positive feedback of the previously employed students from the employer organisations resulted in these companies continuing to return for campus placements with more inclusions each year. Besides placements, a number of our students have gone in for higher studies in India, including IITs, and abroad to University of Reading, UK; University of Limerick, Ireland; University of Florida, New York University, University of California, Arizona State University (USA); University of Windsor, Canada; University of Melbourne, Australia, amongst others.

Student Employability Enhancement 2018

To facilitate evaluation of graduating students’ employability readiness and gap analysis the University outsourced it to M/s Aon Co-Cubes who do third party assessments for BTech graduating students, on behalf of hiring companies. More than 93% BTech students took the assessment test, more than 50% are ready to go for placements, about 30% need further practice and 20% need additional training.

Based on the recommendation of AICTE, NCU partnered with another assessment platform youth4work for our Engineering students.

Placements – Class of 2018

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>BTech</th>
<th>LAW</th>
<th>MBA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>CS</td>
<td>EEE</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACTUAL STRENGTH</td>
<td>487</td>
<td>222</td>
</tr>
<tr>
<td>2</td>
<td>ELIGIBLE AND INTERESTED FOR PLACEMENT</td>
<td>328</td>
<td>159</td>
</tr>
<tr>
<td>3</td>
<td>NUMBER OF PLACEMENTS</td>
<td>315</td>
<td>157</td>
</tr>
<tr>
<td>4</td>
<td>PERCENTAGE PLACEMENTS</td>
<td>97%</td>
<td>99%</td>
</tr>
</tbody>
</table>
Our Recruiters

[Image of various company logos]
The Centre for Languages Learning (CLL) offers courses in Effective Communication as well as the compulsory foreign languages viz., German, Spanish and French to undergraduate students across all Schools of The NorthCap University. 246 students studied French, 145 studied German, 240 studied Spanish and gained basic proficiency in the language. During the reporting year, CLL put in concerted efforts to achieve all round excellence in academics as well as extracurricular activities.

The Centre conducted a meeting of Board of Studies for the approval of Pre-PhD courses offered by the Centre in April 2018. CLL is offering the PhD programme in English since January 2017.

A six day Faculty Development Programme on ‘Emerging Trends in Teaching and Learning’ was organized by CLL in June 2018 which included sessions by eminent academicians; webinars on ‘Critical Communication Skills’ by College of Continuing Education, University of Minnesota, and on ‘Interpersonal Skills and Interview Skills’; and a movie screening of ‘The Marva Collins True Story- Great Teacher’. The aim of the FDP was to motivate and inspire the faculty members.

The Centre runs various clubs like Samwad, Success Mantra, Lingua Franca, Mainstream and Abhivyakt that conducted several enriching activities and competitions. Abhivyakt organized ‘Altercation: The Great Debate’, an interdepartmental debating competition, on the topic ‘Is Bollywood becoming a soft target for political games?’ in Feb 2018, and ‘Are traditions an obstacle to the progress of Indian Society’ in April 2018. Club Success Mantra organized an activity called ‘Just Jumble’ in Feb 2018 where participants had to guess jumbled sentences and jumbled words. Club Samvaad organized a ‘Round Table Conference’ in Feb 2018 to provide students a competitive platform to showcase their auditory skills. Club Lingua Franca organized an activity, ‘Hypothesis Thinking’ in Feb 2018. To promote creativity in students, CLL conducted an activity of Creative Writing through Poster Presentations for CSE 1st year students in Feb 2018. Students organized their ideas and information on socially relevant topics through poster presentations.

Centre for Languages Learning organized a lecture on ‘Gender Sensitivity’ by Mr Tanay Yadav, Prabhaav Learning Pvt Ltd, for 4th Sem CEE students in May 2018. Focus was on using more gender-neutral language and respecting each other for being a human, irrespective of the gender. A seminar on Corporate Governance and Role of CII towards the governance of businesses in India was conducted by Mr Vivek Upadhyay, Deputy Director, CII SME, in Nov 2018 for students studying Human Values and Professional Ethics.

Vibings Creative Solutions, University’s only magazine society coordinated by CLL, presented their most popular product ‘The Hashtag’ magazine in August 2018 during the Induction Programme for 1st Year students. Vibings Creative Solutions organized a launch event of The Hashtag magazine Issue 3 on 27 Aug 2018.

Faculty members gave talks, judged debates and other events at reputed organizations and institutions. They presented research papers in various international conferences and their research papers were published in journals of repute.

Students used the CLL Language Lab extensively to familiarize themselves with content from different sources and media such as text, images, audio, and video. The idea has been to offer students an alternative way of teaching to promote the practice of skills taught in class by using technology as a tool.
## Students’ Strength/Intake

<table>
<thead>
<tr>
<th>S No.</th>
<th>School</th>
<th>Admitted 2018</th>
<th>Student Strength, Other than fresh intake</th>
<th>Total Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SOET</td>
<td>341</td>
<td>1365</td>
<td>1706</td>
</tr>
<tr>
<td>2.</td>
<td>SOM</td>
<td>195</td>
<td>321</td>
<td>516</td>
</tr>
<tr>
<td>3.</td>
<td>SOL</td>
<td>92</td>
<td>330</td>
<td>422</td>
</tr>
<tr>
<td>4.</td>
<td>PhD</td>
<td>15</td>
<td>112</td>
<td>127</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>643</strong></td>
<td><strong>2128</strong></td>
<td><strong>2771</strong></td>
<td></td>
</tr>
</tbody>
</table>
**Academic Results**

The University results for Academic year ending June 2018 have been satisfactory. 851 students were awarded degrees in their respective disciplines, including 519 from BTech, 26 from MTech, 23 from BSc Maths (H), 27 from MSc Maths, 94 from BBA, 61 from BCom (H), 25 from BSc (Eco), 32 from MBA, 77 from BBA-LLB (H), 7 from LLM and 12 awarded PhD. The detailed results are shown below:

**UG Courses**

<table>
<thead>
<tr>
<th>DISCIPLINE</th>
<th>TOTAL STRENGTH</th>
<th>TOTAL PASSED</th>
<th>I CLASS WITH DISTINCTION</th>
<th>FIRST CLASS</th>
<th>SECOND CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTech CSE</td>
<td>232</td>
<td>229</td>
<td>35</td>
<td>176</td>
<td>18</td>
</tr>
<tr>
<td>BTech CV</td>
<td>58</td>
<td>51</td>
<td>7</td>
<td>41</td>
<td>3</td>
</tr>
<tr>
<td>BTech ECE</td>
<td>112</td>
<td>108</td>
<td>12</td>
<td>88</td>
<td>8</td>
</tr>
<tr>
<td>BTech EE</td>
<td>26</td>
<td>25</td>
<td>1</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>BTech IT (2013 Batch)</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTech ME</td>
<td>117</td>
<td>104</td>
<td>11</td>
<td>86</td>
<td>7</td>
</tr>
<tr>
<td>BSc (Maths)</td>
<td>24</td>
<td>23</td>
<td>4</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>BBA</td>
<td>104</td>
<td>94</td>
<td>10</td>
<td>69</td>
<td>15</td>
</tr>
<tr>
<td>BCom (Hons)</td>
<td>65</td>
<td>61</td>
<td>8</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>BSc (Eco-Hons)</td>
<td>25</td>
<td>25</td>
<td>3</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td>BBA-LLB (Hons)</td>
<td>86</td>
<td>77</td>
<td>13</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>Pass Percentage</td>
<td>851</td>
<td>799</td>
<td>104</td>
<td>602</td>
<td>93</td>
</tr>
</tbody>
</table>

**PG Courses**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Total Strength</th>
<th>Total Passed</th>
<th>1st Class with Distinction</th>
<th>First Class</th>
<th>Second Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.TECH.</td>
<td>27</td>
<td>26</td>
<td>3</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>MSc (Maths)</td>
<td>28</td>
<td>27</td>
<td>4</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>MBA</td>
<td>35</td>
<td>32</td>
<td>2</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>LLM</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Pass Percentage</td>
<td>97</td>
<td>92</td>
<td>11</td>
<td>66</td>
<td>15</td>
</tr>
<tr>
<td>PhD</td>
<td>-</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.TECH.</td>
<td>27</td>
<td>26</td>
<td>3</td>
<td>21</td>
<td>2</td>
</tr>
</tbody>
</table>
The vision of The NorthCap University is to be known globally for learning innovations, academic excellence and socially relevant research outcomes. The Central Research Facility at NCU has strengthened research-relevant infrastructure of science and technology at the University and faculty members are utilising 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.

Central Research Facility

The Central Research Facility (CRF) at The NorthCap University is a central facility with latest and advanced analytical instruments for research in the areas of Physics, Chemistry, Engineering and interdisciplinary sciences. A total amount of Rs 1.2 crore has been spent on establishing this facility at the University. It is equipped with the latest state-of-the-art equipment such as UV-Vis-NIR Spectrophotometer, LCR Meter, I-V Pico-meter, Vacuum Coating Unit, Scanning Electron Microscope (SEM) etc.

The facility has been strengthened by adding new equipment viz; spin coating unit and solar simulator in the academic year 2017-18. The Holography set up was also made functional by adding some more accessories in the current academic year. At present, around 30 UG and PG students and 20 research scholars are using this facility to pursue their projects/research work. Three research projects worth Rs 95 Lakhs, owned by various faculty members, are being developed at CRF. Members of the faculty have also submitted five more research projects, worth Rs 1.31 crore, in which the facilities of CRF have been projected to be used in the near future. A total number of 25 research papers have also been published by using this facility in the current academic year. Researchers from other reputed organizations are also using this facility to pursue their research work.

### Medals Awarded

<table>
<thead>
<tr>
<th>School</th>
<th>Programmes</th>
<th>Gold Medal</th>
<th>Silver Medal</th>
<th>Bronze Medal</th>
<th>Certificate of Merit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOET</td>
<td>Btech (All branches)</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>BSc (Maths)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MSc (Maths)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>M Tech (All branches)</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>SOM</td>
<td>BBA</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BCOM (Hons)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BSc (Eco-Hons)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MBA</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>SOL</td>
<td>BBA LLB (Hons)</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>LLM (1 Yr)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>9</strong></td>
<td><strong>7</strong></td>
<td><strong>4</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

Research at the University
Some of the progress during the year under reporting are:-

### Ongoing Sponsored Research Projects

<table>
<thead>
<tr>
<th>S. No</th>
<th>PI &amp; Department</th>
<th>Project Title</th>
<th>Scheme</th>
<th>Duration (yrs)</th>
<th>Date of Sanction</th>
<th>Total Amount Sanctioned (Rs. Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ms Rita Chhikara (CSE)</td>
<td>Neural network based steganalysis</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>26.06.15</td>
<td>₹ 20.51</td>
</tr>
<tr>
<td>2</td>
<td>Dr Phool Singh (APS) &amp; Co-PI: Ms Jyotsna Singh (CSE)</td>
<td>A computational model for STN (sub thalamic nucleus) in Parkinson Disease to investigate the discharge patterns</td>
<td>DST (CSRI)</td>
<td>3</td>
<td>09.07.15</td>
<td>₹ 19.31</td>
</tr>
<tr>
<td>3</td>
<td>Ms Vaishali Sahu (CE)</td>
<td>Experimental and Numerical Study of Single Pile Capacity Adjacent to Existing Buried Pile System</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>16.11.15</td>
<td>₹ 25.41</td>
</tr>
<tr>
<td>4</td>
<td>Dr Akansha Singh (PI), Co-PI: Dr. Latika Singh, Ms. Sumanlata Gautam (CSE)</td>
<td>Emotion recognition system for autistic children</td>
<td>DST (CSRI)</td>
<td>3</td>
<td>11.05.16</td>
<td>₹ 18.27</td>
</tr>
<tr>
<td>5</td>
<td>Ms Chetna Tyagi (APS)</td>
<td>Study of Polymer nanocomposites for solar cell applications</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>31.05.16</td>
<td>₹ 24.30</td>
</tr>
<tr>
<td>6</td>
<td>Dr Aditya Sharma (APS)</td>
<td>Lateral Flow Assay Strip Sensor Development for Non-Invasive Point of Care Diagnosis of Urinary Tract Infection</td>
<td>DST (SERB Young Scientist)</td>
<td>3</td>
<td>29.06.16</td>
<td>₹ 42.02</td>
</tr>
<tr>
<td>7</td>
<td>Ms Geetika (CSE)</td>
<td>Phylogenetic Model for cancer classification</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>16.08.16</td>
<td>₹ 18.90</td>
</tr>
<tr>
<td>8</td>
<td>Ms Pooja Sabharwal (ECE)</td>
<td>Delineation of QRS complex for feature extraction of Myocardial Infarction in single lead ECG signal</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>12.05.16</td>
<td>₹18.15</td>
</tr>
<tr>
<td>9</td>
<td>Dr Kavita Khanna Co-PI: Dr Rita Chhikara and Dr Rakesh Kumar Dua (Max Hospital shalimar bagh), Dr Rajeev Malhotra (CSE)</td>
<td>Detecting Dementia using Deep Neural Networks</td>
<td>DST (CSRI)</td>
<td>3</td>
<td>06.07.2018</td>
<td>₹19.59</td>
</tr>
</tbody>
</table>

**Total** | **2.6 Crore**
Completed Sponsored Research Projects

<table>
<thead>
<tr>
<th>S.No</th>
<th>PI &amp; Department</th>
<th>Project Title</th>
<th>Scheme</th>
<th>Duration (yrs)</th>
<th>Date of Sanction</th>
<th>Total Amount sanctioned (Rs. Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr Deepika Chaudhary (APS)</td>
<td>Study of optical and electrical properties of nanostructured glasses for application in optical recording media</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>13.05.15</td>
<td>₹ 30.03</td>
</tr>
</tbody>
</table>

- In summary, during the reporting year, Nine research projects for a total amount of Rs 2.6 crore have been sanctioned by funding agencies and Rs1.54 crore has been received till date. One DST (WOS-A) project of 30.03 Lakh has been completed in 2018. In addition to these, 12 research projects (from Jan 2018 to December 2018) have been submitted to various funding agencies.

Consultancy Details

Following Consultancy projects were undertaken by the University in aforesaid period.

<table>
<thead>
<tr>
<th>S.no.</th>
<th>Name of Faculty</th>
<th>Title of Consultancy</th>
<th>Name of Organization/Company</th>
<th>Fund Sanctioned (In. Rs.)</th>
<th>Fund Received (In Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Dr Sushmita Biswal Waraich (SOM)</td>
<td>Sessions on Industrial/Organisational Psychology</td>
<td>Christ Institute of Management, Ghaziabad</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>2.</td>
<td>Dr. A.P. Dash (SOM)</td>
<td>Management Development Programme on ‘Managerial Skills’</td>
<td>Teesta Urja/Giriganga, Sikkim</td>
<td>60,000</td>
<td>60,000</td>
</tr>
</tbody>
</table>

Total 90,000 90,000

Patents published/awarded during the year

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of the Patent</th>
<th>Patent Filed Date</th>
<th>Name of the Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>FIGFPD Fuel indicator and global fuel pump detection system (Published) Publication No 21/2018</td>
<td>25 April 2018</td>
<td>Dr Sharda Vashisth and Dr Neeraj Kumar Shukla</td>
</tr>
<tr>
<td>2.</td>
<td>D-Dustbin: Digital Dustbin</td>
<td>2 Aug 2018</td>
<td>Dr Sharda Vashisth, Dr Anjali, Dr Rekha Vij, Dr Neeraj Kumar Shukla</td>
</tr>
<tr>
<td>3.</td>
<td>IPC System: Intelligent Power Control System of any power backup</td>
<td>14 Sept 2018</td>
<td>Dr Anjal, Dr Charu, Dr Jyotsna, Ms Kusum</td>
</tr>
</tbody>
</table>
Other Research Issues

- One DST (WOS-A) project of 27.80 Lakh has been Technically Approved on 20 Feb 2018.
- A contingency grant of Rs 25,000 each to full-time Doctoral research students is being funded to facilitate research carried out by scholars.
- 126 doctoral students are currently registered with the University to carry out their doctoral dissertation research work: SOET – 98, SOL - 13, SOM - 15.
- NCU continues use of proprietary software, Turnitin, to vet all theses, publications and documents to guard against plagiarism. Guidelines for checking plagiarism were reissued during the reporting year and meticulously followed, with no case of plagiarism.
- NCU has strengthened academic and industrial collaboration through MoUs signed with various universities/institutes/industry; 26 MoUs are currently active.
- 137 journal papers have been published in refereed journals. Two books and 16 book chapters have been published by the faculty in 2018 (Jan-Dec).

Student Projects

Project Management plays a key role in enhancing the leadership, structured problem solving and innovative skills of students. To give students a platform to showcase their innovative ideas in the form of projects, SOET organized Technovation – The Annual Project Day on 6 April 2018. During the event about 80 students of BTech Final-year, Departments of EECE, CSE&IT, ME and CEE showcased their innovation through 23 major projects from out of the many that were actually developed. Technovation’18 formed the basis for the selection of the Best BTech Project Awards. To encourage young minds to strive for excellence and to recognize the innovative application of technical ideas of BTech Final-year students, the Best BTech Project Award Committee declared the Best BTech Projects on 24 May 2018. The projects by BTech students were evaluated by the Committee keeping in mind ‘FOCUSS’, an acronym of Financial viability of the project, Originality-Innovativeness, Customer-end applicability/takers, Usefulness to society, Sustainability of the environment and Structured approach. The best three projects were awarded cash prizes of Rs. 1 Lakh, Rs 75,000 and Rs 50,000 for 1st, 2nd and 3rd Positions respectively.

The Best BTech Projects for 2018 were:

- **1st Prize:** ‘Page Turner using Eye Tracking’ developed by Hardik Munjal and Karan Arora, Department of CSE &IT, guided by Ms Neeti Kashyap, Ms Hitesh Yadav and Dr Kavita Khanna

- **2nd Prize:** (i) ‘Automated Self-Checkout Machine for Indian Retail Sector’ developed by Tanyam Popli, Shivam Nautiyal & Vibhor Mittal, Dept of ME, guided by Mr Abhishek P Singh & Dr Charu Rana

  (ii) ‘Design & Manufacturing of Electric Solar Vehicle’ developed by Iahan Dhingra, Jitender Verma, Naveen Chauhan & Lavish Kataria, Dept of ME, guided by Mr Praveen Singh and Dr K. Mathiyazhagan

- **3rd Prize:** ‘Elevate’ developed by Aashish Sharma and Aanand Vardhan, Dept of CSE&IT guided by Ms Anuradha Dhull

- Students have worked on various projects in the Tinkering Lab such as Earthquake resistance building, Drone delivery system, Smart classroom with automatic room lock and light on-off system, Gesture controlled car, Automatic smart car parking system and Automatic hand wash tap.

- Team Alacrity, Comprising of 24 BTech students participated in ESVC (Electric Solar Vehicle Championship) under the organization ISIE (Imperial Society for Innovative
Engineers), from 27 March to 4 April 2018. NCU team stood 1st in the theoretical test. Team Alacrity also bagged the 1st position in Endurance Test and was awarded prize money of Rs 20,000.

- ‘Trans-X’, a project to automate the process of Academic Transcript generation for students who request for the same was developed and successfully deployed by Deepanshu Jain, Kartavya Atri and Harshit Wadhwa, BTech (CSE) 3rd Year students in Oct 2018.

- An exhibition of IoT based projects was held by the Dept of CSE&IT on 17 Nov 2018 at the University. The projects showcased the skills acquired by the students of 7th Sem during the ‘Programming for IoT Devices’ course. Garbage Monitoring System, Voice Controlled Wheelchair and Motion Detection Alert System were adjudged the best projects on display in the exhibition.

- 30 students of BTech (CSE, ME, ECE) and BSc Physics (H) displayed 10 Physics Projects in Momentum & Cerebration 2018 on 24 Oct 2018 and ‘SPEED 2018’ in November 2018.

- Final year students of the Dept of CEE displayed their projects at NIT Hamirpur’s Tech Fest ‘NIMBUS 2018’ in April 2018

- The University continued to encourage innovative ideas of students.

In March 2018, two projects worth approximately Rs 85,000/- were granted VC Innovation Fund. The details of the projects and award amounts are as follows:

**March 2018**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Title</th>
<th>Student Details</th>
<th>Mentor</th>
<th>Fund Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vehicle Security system with Integrated Accident alert System and fire protection</td>
<td>Akash Lal (14MEU010) Palash Sharma (14CSU135) Pravenu Mehta (14CSU146) Nipun Kalra (14MEU054)</td>
<td>Dr. Rohit Singh Lather Ms. Suman Bhatia</td>
<td>Rs 55,000/-</td>
</tr>
<tr>
<td>2</td>
<td>Smart office automation using IOT</td>
<td>Akhil Sharma (15CSU017 ) Abhishek Chauhan (15CSU007)</td>
<td>Dr. Latika Singh Vinay Solanki (Aeris)</td>
<td>Rs 30,000</td>
</tr>
</tbody>
</table>

**Total funds granted under VCIF Scheme**

Rs 85,000/-

**September 2018**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Title</th>
<th>Student Details</th>
<th>Mentor</th>
<th>Fund Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Water leakage detection system using pressure sensor ball</td>
<td>Simran Sejwal (15CSU235) Alakshendra Sharma (15CSU270)</td>
<td>Ms. Garima Sharma</td>
<td>Rs 13,000/-</td>
</tr>
<tr>
<td>3</td>
<td>Automated Farming Monitoring System</td>
<td>Anneketh Vlij-16CSU048 Abhishek Jain-16CSU015 Aarushi Sharma-16CSU015 AshimaBassi-16CSU006 Shivam Bajaj-16CSU347</td>
<td>Dr. Vijendra Singh</td>
<td>Rs 45,000/-</td>
</tr>
<tr>
<td>4</td>
<td>Smart Fit</td>
<td>Nikhil Mudgal -15CSU128 Nimit Badak (15CSU133)</td>
<td>Dr. Shilpa Mahajan</td>
<td>Rs 70,000/-</td>
</tr>
<tr>
<td>5</td>
<td>Design and fabrication of low cost 3D printer</td>
<td>Shubham Atreya (15MEU077) Shubham Gagal (15MEU078) Vikas Chauhan (15MEU087)</td>
<td>Dr. Satnam Singh</td>
<td>Rs 46,000/-</td>
</tr>
</tbody>
</table>

**Total funds granted under VCIF Scheme**

Rs 2,30,000/-
Collaborations

Besides obtaining recognition by accreditation agencies and statutory associations, 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. The University is committed to providing students and faculty a unique life changing experience that will help them remain competitive and relevant to society. Our endeavour in this direction has resulted in successfully forging progressive alliances with premier institutions round the globe, a brief of which is presented in the succeeding paragraphs.

**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.

**National Technical Research Organization (NTRO):** The University signed an MoU with National Technical Research Organization, New Delhi, on 12 Sept 2018. The MoU shall provide collaborative working arrangement on specific research and development projects. In addition, NCU interns may be considered by NTRO for involving young talent in relevant fields.

**The Indian Meteorological Department (IMD):** The NorthCap University has signed a Letter of Agreement (LOA) with The Meteorological Department (IMD), Ministry of Earth Sciences, GOI, to facilitate sponsored students and Employees in research & developmental activities associated in the field of Meteorology. IMD will install an Advance weather station at the NCU campus for monitoring weather, atmospheric studies and research activities.

The NorthCap University signed a Partnership Agreement with MAGES Institute of Excellence, Singapore, in Aug 2018. Under this agreement MAGES Institute of Excellence will provide guidance and training in new technological areas like Virtual Reality, Augmented Reality, Artificial Intelligence, Data Analytics and other emerging areas to students and faculty at NCU. They will also suggest courses in newer technologies which can be embed in the BTech programmes, especially related to CSE & ECE. This agreement is committed to raising standards in education and preparing the next generation of students for jobs of the future.

**Michigan Technological University:** A Partnership Agreement 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.

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.

**University of Chester:** A Partnership Agreement 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.
ITB Ireland: The University has an effective Partnership Agreement 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.

The NorthCap University (NCU), Gurugram, signed a Partnership Agreement with Providence University, Taiwan on 23 October 2018. Both universities have agreed to undertake joint research activities and publications, participation in seminars and academic meetings, exchange of academic material, other information and special short-term academic programmes.

Shibaura Institute of Technology: A Partnership Agreement was signed with Shibaura Institute of Technology (SIT), Tokyo, on 7 Aug 2018 wherein both the universities have agreed to undertake joint collaborative research, exchange of students and faculty, exchange of information and publications etc. NCU being a partner university of SIT, students from NCU shall get full programme and tuition fee waiver.

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.

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.

Power Grid Corporation of India Ltd: 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.

Chartered Institute of Arbitrators (India): 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.

Association of Commonwealth Universities: We are a proud member of the Association of Commonwealth Universities and are actively participating in all its affairs. The University won the prize in the Social Outreach category in a competition held in the UK. It also bagged an Honourable Mention prize for its 2012 Annual Report.

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.

Association of Indian Universities (AIU): The University is now a member of the Association of Indian Universities (AIU). This has enabled us to refer to AIU for educational guidance to help improve standards of instruction, examination, research, textbooks, scholarly publications, participation in youth festivals or sports activities, publishing bibliographies of doctoral theses, and other such programmes as may contribute to the growth and propagation of knowledge.
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.

Accreditation Services for International Colleges (ASIC) UK: A respected international accreditation body for academic institutions worldwide, reaccredited The NorthCap University with a status of ‘Premier University’ for a period of four years from Nov 2016. The University was awarded a grade of ‘Commendable’ in seven out of eight measurable areas of a university’s operations.

Spoken Tutorials IIT Bombay: 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.

ISEP: We are direct members of ISEP, under which the students can be sent for a semester or year abroad to over 54 ISEP universities in 30 countries at affordable costs to the students. The host universities transfer credits after students complete all requirements. Students who have cleared their first two semesters at The NorthCap University are entitled to apply.

An MoU was signed between NCU and Maruti Center for Excellence (MACE) in April 2018 to collaborate in the field of Training and Development of NCU students through practical and theoretical trainings and through projects during their internships. The collaboration extends to technical seminars and guest lectures also. The MoU will provide UG students of the Dept of Mechanical Engineering a platform to enhance their technical skills followed by employability.

Collaboration 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.

An MoU was signed between The NorthCap University and Daikin Air-Conditioning India Pvt Ltd (DAIPL) on 26 March 2018 to establish a ‘Centre of Excellence’ on HVAC Systems at the University that will impart practical skill training and industrial exposure to the students on the campus. The Centre of Excellence (CoE) is a one of its kind set up by the Japanese Company – Daikin India in any educational institution in Gurugram.

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.

The NorthCap University has become a part of the BMW India’s ‘Skill Next’ programme aimed at imparting hands-on expertise and practical training to automobile engineering students across the country.
Infrastructure

The NorthCap University during the year continuously improved its physical, academic and information infrastructure in pursuit of academic excellence.

The University campus located in a clean and pollution-free environment 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. The excellent academic infrastructure consists of over 60 classrooms, 18 tutorial rooms, 71 labs, 25 workshops, faculty cabins, seminar hall, conference rooms, media room, a 430 seat state-of-the-art auditorium with a well-equipped Green Room for participants and a double basement parking. Departments, faculties, laboratories and facilities have been further strengthened during the reporting year.

The open-air Amphitheatre next to the sports ground is used extensively for various university functions, club and professional society activities. The University campus is spirited by the number and diversity of its students’ organizations. Many student groups are dedicated to community service and social action. The office of students' activities serves as a living-learning centre for students to coordinate a broad range of social, cultural, intellectual, educational and leadership programmes which are conducted throughout the year. 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 provides 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. In addition, there is also a Nestle and a Coco Cola outlet. The University provides hostel facilities to over 100 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 building provides state-of-the-art classrooms, besides area for student activities and faculty rooms.

NCU is committed to the green movement. Campus-wide initiatives at reducing, reusing and recycling are helping it achieve a green code of living. For the 17th consecutive year NCU was declared the winner of HUDA garden competition in Gurugram.
Library and Information Resource Centre

The Library and Information Resource Centre (LIRC) at The NorthCap University, a vanguard of its ever-growing infrastructure development, consistently receives principal attention from the University management. It has a rich collection of books, journals and online resources. Currently, the LIRC has a collection of over 1,00,000 volumes (including Book Bank) in all areas of Engineering, Law, Sciences and Management. The LIRC subscribes to over 174 print journals from reputable publishers, institutions, societies, like the Indian Academy of Science Journals, IMB Management Review, Decision, Vision, Harvard Business Review, BCI Journal, etc. LIRC has updated its computerized services from Libsys 4 Software to Libsys 10 Software during the reporting year. The circulation of books is done with the bar-coded system placed on each book and an RFID system is planned in the future. Some of the salient facilities to our readers are as follows:

- Extending support to the Government’s campaign of ‘Digital India’ LIRC launched the first University Library Android mobile app which is available free of cost for download at Google Play Store so that users can access library resources 24x7 through their mobiles.
- Regular information and update on 'New Arrivals' is provided through group e-mails and also uploaded on the University’s website.
- Remote access facility through VPN provides 24X7 access to Library resources.
- Notification through SMS/Email on every transaction is sent to the borrower.
- Library has Web OPAC which offers students the facility to reissue their books from anywhere.
- LIRC joined INFLIBNET Shodhganga theses repository (an initiative of UGC). It provides full text access to the theses published in Indian universities, including those recently completed at NCU.
- LIRC is a member of DELNET (Developing Libraries Network) which offers students the Inter Library Loan Facility.
- LIRC is also a member of the American Centre Library, New Delhi. The American Centre Library is a part of US consulate in India and provides library and education consultancy services to student.
- To facilitate students to prepare for their examinations, both internal/external, the Library timings have been extended to 10.00 pm on all teaching days.
To encourage the reading habit, LIRC has started a new initiative of putting up bookshelves at frequented places on the campus. Students can share their own books with others by keeping them in the bookshelf so that others can borrow, read and return.

LIRC Photocopier machines have been replaced with new digital machines which provide faster and accurate services.

LIRC has a separate reading room with a capacity for 250 students. This reading room has been equipped with comfortable seating arrangements.

Library has also been organizing training programmes and workshops for students and faculty members from time to time particularly in the areas of using E-Resources.

NCU library can be accessed 24*7 online through LSearch Mobile app which is available on Google Play Store. Through this app users can check his/her account and access the collection.

The Library is subscribing to various e-resources to fulfill user’s information need and to support undergoing research activities. Recently LIRC subscribed to new e-resources such as WestLaw, Ebsco Business Source Elite and Tata McGraw Hill.

To maintain the Library collection up-to-date, LIRC distributes old outdated editions of books to students and faculty members free of cost. In January 2018 it distributed 547 books.

Library has started biometric punching to manage entry and exit of students to the library. It is in practice and functioning smoothly. Earlier it was being done manually.

The Library has started checking of books at the Library gate through Libsys software and barcode scanner. This has increased accuracy, efficiency, decreased chances of error and saves time. Earlier it was being done manually.

To keep the users aware about the facilities and services offered by the Library, all important activities, notices, services and facilities etc. are displayed on a Digital Notice Board at the Library gate.

A card swipe machine has been installed in the library which provides the facility of paying fine through Debit/Credit card.

To promote the reading habit and to increase the use of resources and facilities among users the Library has put up posters, distributed flyers etc. to students.

Facility for Tea/Coffee has also been made available by LIRC adjacent to the library, at a very nominal price.

<table>
<thead>
<tr>
<th>Discipline</th>
<th>No. of Books</th>
<th>No. of Journals</th>
<th>National Printed</th>
<th>International Printed</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; Sciences</td>
<td>54527</td>
<td>67</td>
<td>31</td>
<td>ASME: 27, ASCE: 36</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>5850</td>
<td>30</td>
<td>12</td>
<td>SAGE: 19, Ebsco Business Source Elite: 851</td>
<td></td>
</tr>
<tr>
<td>Law</td>
<td>4886</td>
<td>24</td>
<td>04</td>
<td>WestLaw: 1200+, MANUPATRA: 07</td>
<td></td>
</tr>
</tbody>
</table>

In Addition 28 E-Books are also available.
ICT Facility
The University has a fully Wi-Fi enabled campus providing uninterrupted access to the Internet for all students and staff. The University is connected with fibre optics on a network which is wide, robust and secure. It has moved to the ‘dynamic host configuration protocol’, where the user can connect to the network through any electronic communication gadget through the wireless password.

Facilities available are as under:

<table>
<thead>
<tr>
<th>Resource</th>
<th>Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>959</td>
</tr>
<tr>
<td>System &amp; Application Software</td>
<td>55</td>
</tr>
<tr>
<td>Printers</td>
<td>112</td>
</tr>
<tr>
<td>Lan &amp; Internet</td>
<td>Available on systems</td>
</tr>
<tr>
<td>Mail Server &amp; Client</td>
<td>Using Google Apps from Google</td>
</tr>
<tr>
<td>Internet Bandwidth</td>
<td>150 MBPS</td>
</tr>
</tbody>
</table>

NCU network has a backbone of optical fibre cable. Use of Unified Threat Management & Centralized Anti-Virus Server, Windows Update Server, Virtual Private Network Services, Learning Management System, Virtual Labs, Video Conferencing is provided. Access to the network from home – 24X7. Campus & Hostels are fully Wi-Fi.

Virtual Labs
NCU is a nodal centre for Virtual Labs, an initiative of the MHRD under the National Mission on Education through Information and Communications Technology, wherein eight IITs are currently involved.

Cisco Networking Academy
The Cisco Networking Academy, at the University continues to meet the growing demand for ICT professionals and also to improve the career prospects of IT students. Cisco certification is sought after by IT professionals and greatly improves the prospects of students who want to build a career in the IT industry.

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 to important academic information including lecture notes, recommended reading, tutorial sheets and assignments. LMS is provided through ‘Moodle’ as an institutional repository and as a content management system for e-learning. 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.
Enterprise Resource Planning (ERP)
NCU is an IT driven University with nearly all its processes IT driven, Enterprise Resource Planning System (ERP) based on Cloud computing, through a tie-up with Digiuniv Nyasa has added substantial efficiencies with the following modules in use:

1. Admission and Fee Module
   a. Form Collection and Verification
   b. Fee Management System
   c. Student Records
   d. Class Management
   e. Related Reports

2. Academic Module:
   a. Semester Registration
   b. Time Table Generation
   c. Faculty Feedback
   d. Related Reports

3. Attendance Module:
   a. Bio-metric Attendance System
   b. Linking with ERP
   c. Related Reports

4. Examination Module:
   a. Admit Card Generation
   b. Grading and Results
   c. Related Reports

5. Administrative Module
   a. HRMS
   b. Student Placement
Convocation & Scholarships

The NorthCap University, Gurugram, held its 7th Annual Convocation Ceremony for its various undergraduate and postgraduate programmes on 20 November 2018. The event was a memorable one and was presided over by Hon’ble Mr Justice Dipak Misra, Former Chief Justice of India. Other luminaries present at the event included The NorthCap University’s Chancellor and Founder Member, Mr V Daulet Singh; Pro-Chancellor, Prof Prem Vrat; Vice-Chancellor, Prof. HB Raghavendra; Founder Members Mr Avdhesh Mishra and Mr Shiv Saran Mehra.

A total of 903 students were awarded degrees in their respective disciplines, including 519 from BTech, 26 from MTech, 23 from BSc Maths (H), 27 from MSc (Maths), 94 from BBA, 61 from BCom (H), 25 from BSc (Eco), 32 from MBA, 77 from BBA-LLB (H), 7 from LLM and 12 awarded PhD. Gold, Silver and Bronze medals were awarded to 31 candidates who topped the list in their respective streams and 4 Certificates of Merit were awarded. Mr Tanyam, Dept of Mechanical Engineering has been awarded the ‘Outstanding Student of the Year Award’.

The NorthCap University believes that if students are committed, nothing should stop them from realizing their dreams. In keeping with this belief, the University awarded ‘Merit and Means’ scholarships during the year to pursue undergraduate and postgraduate education at the University.

On 22 January 2019, The NorthCap University held its 8th Fee Concession and Merit Scholarship Distribution Ceremony 2018. The University awarded scholarships on merit and means basis to 208 students amounting to Rs 1.47 crores. It was a major achievement for a private university and was lauded by the Chief Guest on the occasion, Shri A S Kiran Kumar, Padma Shri, Member Scientific Advisory Committee to the Prime Minister and Former Chairman, ISRO.
Students’ Activities / Achievements

Professional Societies

CSi Student Branch
Students participated in the CSI Regional Student Convention (RSC-2018) in Gurugram, and won in several events in Feb 2018. Tanya Joon (CSE) attended the Developer Student Club Summit in Goa in Feb 2018 and interacted with eminent leaders from Google and the industry. Students were selected in the first round of CSI InApp National competition held in March 2018. Subsequently, Competitive programming in Advanced Java was organized by CSi Student Branch in April 2018.

ASQ-NCU Student Chapter
ASQ-NCU Student Chapter organized a Quality Conclave on the theme ‘Leadership for Quality’ at the University in Feb 2018 with participants from NTPC, Concentrix, BHEL, and Maruti. The prime attraction of the day was the Case Study Competition on the theme, ‘Ford: A Bumpy Ride’ in which students tackled problems with unique solutions and were judged by industry experts from GMR, Cargill, Maruti, and Bharti Foundation.

ASQ-NCU Chapter Chair and Student Deputy, NextGen, Shringa A Vatas, Dept of CSE, participated in ASQ’s World Conference on Quality and Improvement 2018 at the Washington State Convention Center in Seattle, Washington from 30 April to 2 May 2018. Her efforts were appreciated by the members of the Quality Management Division of ASQ. An interactive session was organized with ASQ Business Development Head, Mr Anandiya Sarangi, in Oct 2018. A training on ‘Lean and Six Sigma Insights’ was conducted by ASQ in Nov 2018 in which 85 students and four faculty members were awarded certificates on successful completion of the online test. The ASQ Quality Conclave was organized on ‘Leveraging Quality to drive Innovation’ at the University in January 2019.

OSA Student Chapter
Nishant Sachdeva, CSE, 3rd Year, won the ‘Mentors Award’ in ‘The Innovation School’ workshop by OSA Foundation for the way he pitched his business idea, in July 2018 at OSA’s global headquarters in Washington, DC (USA). Nishant was the youngest member to be accepted to represent his college and country. Nishant attended the OSA Student Leadership Conference and Frontiers in Optics + Laser Science (FIO + LS) Conference 2018 in Washington, DC, USA from 14-21 Sept 2018.

OSA Student Chapter organized outreach programmes at ‘NGO Rashtrahit Sewa Sanghatan’ school in Gurugram in Sept 2018. Students were shown several experiments and explained the principles on which they worked. A quiz on science and general awareness was held in March 2018. OSA Student Chapter organized an outreach programme at the CSIR-National Physics Laboratory (NPL) on the occasion of CSIR-Foundation Day in Sep 2018.

ISHRAE Student Chapter
Tanyam and Jitendra Verma, won the 1st Runners-up trophy in the quarter-finals of aQUEST HVAC QUIZ- 2018 (The Ultimate Engineering face-off) organized by Manav Rachna International Institute Of Research And Studies, Faridabad, and were the 4th Runners-up in the semi-finals at MMCOE, Pune, in Jan 2018.

ISHRAE Society organized an industrial trip for ME students to Daikin AirConditioning India Pvt Ltd, Neemrana, in Feb 2018 and a technical lecture on Refrigeration & Air-conditioning
by industry expert Mr. Kapil Chand Singhal, BR Refcool, Gurugram in Sept 2018. Re-installation of ISHRAE Student Sub-chapter was organized at NCU in Sept 2018. Another technical lecture was organized for students enrolled for the course on ‘Refrigeration & Air conditioning’ (MEL 405) in Nov 2018.

**IEEE-NCU Chapter**

The event ‘Flash Circuit’ and ‘Buzz Wire’ was organized in Feb 2018. Ritika Sharma (ECE) received the ‘Outstanding Student Volunteer Award’ and was honoured with a token of appreciation for her hard work and diligence towards the IEEE-NCU Student Chapter in April 2018 at New Delhi.

Alumni delivered lectures namely Ms Pooja Mohnani (Class of 2001), Consultant, NextExitFuture GmbH, Heidelberg, Germany, on ‘Human Imagination leading to technological innovation (5G)’ in March 2018 and Mr Himanshu Mann, (Class of 2011), Consultant, PwC, Australia, on ‘Digital Marketing and Data Analytics’ in April 2018.


An Arduino workshop was conducted in Oct 2018 in which 33 students of SOET were provided hands-on practical experience on various development boards of Arduino and its development environment. A one day seminar in collaboration with Spark Talks on the theme ‘Nothing Can stop a Great Idea’ was organized in Nov 2018 in which students and professionals from different colleges and backgrounds participated.

**IRSC-NCU Student Chapter**

The IRSC-NCU Student Chapter in collaboration with Save Life Foundation organized the First Responder Certified Training Workshop for BTech students in Feb 2018. Two students from Dept of CSE got an opportunity to present their idea in the Finale of the Road Safety Hackathon conducted by IRSC and Live Media at IIT, Delhi in April 2018.

**Mathemactive Society**

The Mathemactive Society organized quiz competitions to test the logical ability, accuracy and speed of students apart from basic maths concepts during ‘Mathemania’ in Feb 2018 and ‘ABSCISSA’ in April 2018. Another maths quiz named ‘MATH-A-HOLIC’ was conducted for students of BTech, BSc Maths (H), BSc Physics (H), MSc Maths and BBA in Oct 2018 in which 74 teams (148 students) participated.

**SPIE Society**

SPIE Society organized an industrial visit to Napino Automobiles and Electronics Ltd, IMT, Manesar, for BTech ECE students in Feb 2018; a Career Counselling and Awareness Seminar at Vidya Niketan Sr Sec School, Gurugram, in April 2018, and a group discussion on ‘Educational qualifications for politicians’ and ‘Our culture is decaying’ for BTech 1st Year ECE students in July 2018. A Quiz on verbal and non-verbal reasoning was organized by SPIE Student Chapter NCU in Oct 2018.
Enactus NCU

Based on its passion and dedication towards its projects and the community, Enactus NCU was shortlisted in the top 24 teams from among 74 competing teams through an All India Action Entry application process for the Enactus National Competition which was held in July 2018 at Mumbai.

ACM Student Chapter

ACM Student Chapter and Google Program Manager, Mr Himanshu Batra jointly organized a workshop on Machine Learning and Artificial Intelligence (AI) for CSE students in April 2018 at NCU in which 150 students participated. A lecture on ‘Career Counselling for Higher Studies in USA’ was delivered by Mr Raj Singh, Founder of Connexio Inc, USA, in Oct 2018. 119 BTech students attended the lecture and 20 of them were selected as student ambassadors of the Chapter and will intern with their product development team. Based on their performance and contributions they will receive certificates from Connexio Inc, USA.

Institution of Engineers (India) – IEI Society

Student Chapters of IEI Society were established in the Departments of EECE, CSE&IT, CEE and ME in June 2018. A total of 121 students are currently a part of these chapters across all four branches of Engineering. IEI-CSE Chapter organized a gaming event in Oct 2018 to inculcate problem-solving skills in students. IEI-EECE Chapter organized ‘Technothon’ a technical quiz in Oct 2018. A ‘Hands-on workshop on Raspberry Pi’ was organized by IEI Society Student Chapter for students of ECE and CSE at the Dept of EECE in Nov 2018.

Quizzing Society

The Quizzing Society ‘Minerva’ was set up at NCU in Aug 2018. It aims to inculcate curiosity in students and encourage them to explore new frontiers of knowledge so that they can represent the University at various fora held at the university, regional, national, and international levels. ‘Minerva’ organized its first event ‘Meet the Quizzards’ in Sept 2018.

Google Student’s Club

An orientation and ice breaking session was organized by Google Students’ Club, which aims at creating awareness regarding the internet as well as new and improved Google technologies, in Oct 2018.

Synergy Club

The Synergy Club, SOM, organized a ‘Case Study Analysis Competition’ in Feb 2018 to help students apply classroom learning to actual business challenges. A ‘Creativity Festival’ was organized wherein students were able to showcase their creativity, through various competitions, in April 2018.

Social Club of School of Management

Five students of BBA did community work from June to July 2018 at Sheetla Colony, Gurugram. They were also part of the fund raising campaign called ‘Red card for child labor’.

Rotaract Club

AIDS Healthcare Foundation (AHF), supported by NCU Rotaract Club celebrated the International Condom Day at New Delhi in Feb 2018. The NCU Rotaract Club was recognized as the most active institution-based club of the Rotary district in May 2018. Rtr Nakul Pasricha, 3rd Year, Dept of CSE, bagged the 2nd Position in the Essay Writing
Competition based on the theme ‘Disease Prevention and Treatment’ organized by Rotaract Club of Delhi in Aug 2018. NCU Rotaract Club was recognised with two awards viz., Rtr Pradyuman received the ‘Mr Saransh’ award and NCU Rotaract Club received the Best District Governor’s Visit award based on the assessment of the club’s performance in the last one year. The Club organized a visit to the old age home ‘Ayurda’ a heart touching initiative by the Earth Saviours Foundation at Bhandwari village, Gurugram, in Aug 2018. The Installation Ceremony of NCU Rotaract Club ‘Shapath’ for the Rota year 2018-19 was held at the University, with the support of Rotary Club of Gurugram, in Oct 2018. A Diwali collection and donation drive was organized by the Club wherein ‘Joy of Giving’ counters were setup at the University and the neighbourhood for people to contribute for the needy. The items collected were donated starting from the University and culminating at the old age home in Gurugram, in Nov 2018.

**NCU SPIC MACAY Club**

As a part of SPIC MACAYVirasat, the SPIC MACAY Chapter of NCU invited Haji Mohd Idris and Mohd Ilyas, popularly known as the Qutbi Brothers, one of the most significant Qawwali artists in contemporary Indian music in Feb 2018. Through their performance as well as interaction with them, the audience was privileged to understand and appreciate some of the nuances of classical music.

**NCU Yoga Club**

NCU Yoga Club organized Surya Namaskar Challenge 2018 in April 2018 to spread awareness about Yoga among NCU students. Student Yogesh Sharma, 1st Year, CSE won the Challenge. The fourth International Yoga Day was celebrated in June 2018 by organizing a special yoga session in which all students, faculty and staff of the University learnt some basic yoga ‘asanas’ to stay fit and healthy.

**Lions Bhangra NCU**

A team of 12 students under the name ‘Lions Bhangra NCU’ participated in ‘Engifest 2018’ the annual cultural fest of the DTU, in Feb 2018. The fest focused primarily on performances in the form of music, dance, skits, plays and other artistic events. Lions Bhangra NCU was invited to RedFm 93.5 Studio, Noida for a performance in April 2018. The video of the one minute performance at the Studio was trending on social media platforms.

**Club and Society Fest**

The Club and Society Fest was organized especially for 1st Year students in Aug 2018. The fest created awareness about the various professional societies and clubs active in the University, activities/events organized by them, throughout the year and students got the opportunity of registering themselves, on site.

**Orientation Programme – 2018**

The Orientation Programme for the new batch of students admitted to the three Schools of NCU was conducted on 21 July 2018. It was a day of excitement for the new students as they entered the world of higher learning. The Guest of Honour, on the occasion was Prof. BK Kuthiala, Chairperson, Haryana State Higher Education Council, Govt of Haryana.
Induction Programme for students

A ten day Induction Programme for new students was conducted from 23 July to 3 Aug 2018. The objective of the programme was to help new students adjust in the new environment and promote bonding amongst students, freshers and members of the faculty.

Freshers Day Celebrations

The University organized a welcome party for the new batch of students on 11 Sept 2018 so that fresher’s get an opportunity not only to showcase their talent but also get a chance to interact with their seniors in a friendly atmosphere. Freshers of the three Schools participated in an ambience of excitement, joy, music, enthusiasm, laughter and happiness.

Momentum 2018

The University celebrated its Annual Techno-Cultural festival ‘Momentum 2018’ in Oct 2018, which saw a plethora of cultural and technical events providing students a platform to showcase their talent.

'Matrabhasha Diwas' Celebrations

On 21 Feb 2018 the University celebrated 'Matrabhasha Diwas' to promote the use of one’s mother tongue. To mark the occasion an 'Open Mic' session was organized in which students and faculty members recited poems in Hindi and focus was on understanding the essentials of our culture and the importance of imbibing the values of our ancient Indian culture.

NCU stands with Kerala

In one of the most destructive deluges that Kerala has seen in a century, the faculty, staff and students of NCU got together and donated generously for Kerala Flood Relief. A sum of Rupees Three Lakhs, fourteen thousand eight hundred was collected by way of voluntary donation and sent online to the Chief Minister’s Distress Relief Fund, in Sept 2018.

Live telecast of Prime Minister’s address to students

Hon’ble Prime Minister, Shri Narendra Modi addressed students of schools and colleges and spoke about the importance of stress-free exams which was telecast live at the University on 16 February 2018. Special arrangements were made so that a maximum number of students were able to join the Prime Minister’s session ‘Pariksha Par Charcha’.
Student Achievements
GATE EXAMINATION 2018

Students of SOET excelled in GATE 2018 and have carried forward the legacy of NCU as a leader amongst Private Universities. AIR-94 was achieved by Akshay Bhatia and Percentile 99.65 was achieved by Himanshu Singla.

<table>
<thead>
<tr>
<th>Name</th>
<th>Roll No.</th>
<th>AIR/Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKSHAY BHATIA</td>
<td>13CSU017</td>
<td>AIR 94 in GATE 2018</td>
</tr>
<tr>
<td>HIMANSHU SINGLA</td>
<td>14CSU078</td>
<td>Percentile: 99.65</td>
</tr>
<tr>
<td>DEVANSH BHATIA</td>
<td>14CSU056</td>
<td>Percentile: 97.96</td>
</tr>
<tr>
<td>ASHISH KHURANA</td>
<td>14CVU013</td>
<td>Percentile: 97.42</td>
</tr>
<tr>
<td>LAKSHAY MATHUR</td>
<td>14CSU106</td>
<td>Percentile: 96.42</td>
</tr>
<tr>
<td>ABHISHEK YADAV</td>
<td>14MEU005</td>
<td>Percentile: 96.1</td>
</tr>
<tr>
<td>ANKIT GUPTA</td>
<td>14MEU016</td>
<td>Percentile: 95.57</td>
</tr>
<tr>
<td>NAVCHETAN GANDHI</td>
<td>14EUU049</td>
<td>Percentile: 95.75</td>
</tr>
<tr>
<td>SHUBHAM MISHRA</td>
<td>14CSU085</td>
<td>Percentile: 95.37</td>
</tr>
<tr>
<td>MANISH YADAV</td>
<td>14CVU030</td>
<td>Percentile: 94.00</td>
</tr>
<tr>
<td>SANDEEP YADAV</td>
<td>14CSU101</td>
<td>Percentile: 93.92</td>
</tr>
<tr>
<td>RISHABH RAKHANI</td>
<td>14CSU106</td>
<td>Percentile: 93.72</td>
</tr>
<tr>
<td>ANKIT KUMAR</td>
<td>14MEU012</td>
<td>Percentile: 93.53</td>
</tr>
<tr>
<td>NITIN YADAV</td>
<td>14EUU011</td>
<td>Percentile: 93.45</td>
</tr>
<tr>
<td>PRANAV ARORA</td>
<td>14CSU140</td>
<td>Percentile: 92.91</td>
</tr>
<tr>
<td>RAVIN</td>
<td>14CSU161</td>
<td>Percentile: 92.41</td>
</tr>
<tr>
<td>DEEPTANKAR GUPTA</td>
<td>14CSU053</td>
<td>Percentile: 92.47</td>
</tr>
<tr>
<td>AADITYA SHARMA</td>
<td>14CSU208</td>
<td>Percentile: 92.25</td>
</tr>
<tr>
<td>PANKAJ DAGAR</td>
<td>14CVU038</td>
<td>Percentile: 92.85</td>
</tr>
<tr>
<td>RAVI</td>
<td>14CSU072</td>
<td>Percentile: 91.83</td>
</tr>
<tr>
<td>TUSHAR SETHI</td>
<td>14EUU027</td>
<td>Percentile: 90.46</td>
</tr>
<tr>
<td>NANDINI GUPTA</td>
<td>14CSU124</td>
<td>Percentile: 90.38</td>
</tr>
<tr>
<td>ROHIT MALHOTRA</td>
<td>14CSU174</td>
<td>Percentile: 90.07</td>
</tr>
<tr>
<td>YASH GUPTA</td>
<td>14CVU057</td>
<td>Percentile: 89.42</td>
</tr>
<tr>
<td>ANISHA TALWAR</td>
<td>14CSU025</td>
<td>Percentile: 88.83</td>
</tr>
<tr>
<td>HIMANSHU GUPTA</td>
<td>14CSU076</td>
<td>Percentile: 88.33</td>
</tr>
<tr>
<td>VIDIT JAIN</td>
<td>14CVU052</td>
<td>Percentile: 88.51</td>
</tr>
<tr>
<td>SHREYA MEHTA</td>
<td>14CSU185</td>
<td>Percentile: 88.15</td>
</tr>
<tr>
<td>LALIT YADAV</td>
<td>14CSU143</td>
<td>Percentile: 87.39</td>
</tr>
<tr>
<td>SHUBHAM GUPTA</td>
<td>14MEU003</td>
<td>Percentile: 87.83</td>
</tr>
<tr>
<td>PRASHANT YADAV</td>
<td>14CSU145</td>
<td>Percentile: 85.21</td>
</tr>
<tr>
<td>SHIVESH</td>
<td>14MEU012</td>
<td>Percentile: 85.149</td>
</tr>
</tbody>
</table>
NCU students studying at ITB, Dublin, Ireland

Sidharth Sharma, EECE (Class of 2019) and Jitesh Miglani, CSE (Class of 2017) are studying at the Institute of Technology, Blanchardstown (ITB), Dublin, Ireland. Sidharth, is studying for Bachelor of Engineering (H) in Computer Engineering in Mobile Systems (BN423) and Jitesh is studying for Masters of Science in Computing in Applied Cyber Security (BN528) at ITB. Both students have been offered concessional fee under our Partnership Agreement. Under the NCU-ITB collaboration, twelve NCU students have earlier studied at ITB, Dublin, under various exchange options.

Team Alacrity, Dept of ME, participated in a go-kart design and manufacturing championship organized by ISIE (Imperial Society of Innovative Engineers), in Jan 2018. They stood 1st in the theoretical test. Team Alacrity ranked 1st in North Zone, in the pre virtual round and 8th Pan-India in the Hybrid Vehicle Championship held in July 2018.

A team comprising of ECE 1st Year students, Divyam Sachdeva, Tanish Tyagi and Neelam participated in a Tech competition held at DTU in Feb 2018. The robot made by NCU students came first in the 1st round with a finishing time of 26.86 seconds while for the second position the time taken was 32.12 sec.

The Dept of CSE&IT organized an Inter School LAN gaming competition in Feb 2018. Schools from Delhi-NCR participated in the event. Student Shaurya, BTech, 3rd Year CSE, was selected as a part of the Microsoft Core organizing team for a national level competition, Imagine Cup 2018, in April 2018.

Mitsubishi Electric Cup 2018

Mitsubishi Electric India Pvt Ltd organized the Mitsubishi Electric Cup-2018, the national level competition for factory automation skill for engineering students, in association with the Institute of Technology, Nirma University, Ahmedabad, in Feb 2018. NCU’s multidisciplinary team ‘Adroit’ developed a Smart Drainage Management System (SDMS), which aims at preventing water clogging. The team cleared the first round and was shortlisted amongst the top 35 teams out of over 150 teams from all over India.

NCU alumnus assisted Haryana Chief Minister

NCU alumnus, Raghav Chawla, CSE (Class of 2014), Officer IT, Punjab National Bank, assisted our Hon’ble CM of Haryana, Shri ML Khattar, in making digital payment through BHIM app, developed by National Payments Corporation of India, based on the Unified Payment Interface.

PhD scholar Ms Renu, Dept of APS, won the 2nd Prize in the poster presentation in a workshop organized by University of Delhi in Aug 2018.


A team comprising of Amardeep Chahal and Mayank Dahija, BBA-LLB (H), won the 2nd position in the National Client Consultation Competition at Ambala in Sept 2018.


Anju Arya, Chemistry research scholar, presented her abstract ‘Biogenic synthesis of copper and silver nanoparticles using green algae Botryococcus braunii and their antimicrobial activity’ in the International Conference on Microbes for Biotechnological Innovations held at MDU, Rohtak, in Dec 2018. Anju presented her abstract ‘In vitro antimicrobial and antioxidant activity of biogenically synthesized Palladium and Platinum nanoparticles using Botryococcus braunii’ in the National Conference on Chemistry for Human Health and Environment held at the University of Delhi, in Dec 2018.

Vaibhav Mishra, Chemistry research scholar, presented his paper on ‘Silica supported piperazine sulfosalicylic acid as recyclable and environment friendly catalyst for synthesis of 2-substituted benzimidazoles’ at University of Delhi in the National Conference on Chemistry for Human Health and Environment, in Dec 2018.

**Beyond the Classroom**

- NCU Recreation Club organized a trip to Manali for NCU students from 9-13 March 2018. A total of 21 students from across the different Schools joined the excursion along with faculty and staff coordinators. A trek to Kasol and Kheerganga (HP) was organized for the students of the University from 28 March to 1 April 2018. A total of 48 students from across the different Schools, including four alumni, along with faculty and staff coordinators, were a part of this trek.

- The University celebrated ‘Club Fiesta’ in Feb 2018. It saw a culmination to the week-long activities, technical and non-technical, which were organized by various student clubs of the University. It was an opportunity for students to showcase their talent and extracurricular skills.

**Social Service**

- In continuation to its previous activities i.e. Open MIC, UPHAAR-an Organ donation camp, visit to orphanage Asha Greha, ‘Yukti’ the social service club of NCU visited the old age home ‘Tau Devi Lal’ situated in Gurugram, under Suvidha and Khushi Cell, in Jan 2018. Efforts were to provide some support and spread cheer among the mentally and physically challenged women residents of the old age home. To reduce carbon footprint Yukti in collaboration with United Way organized a song and street play on ‘Awareness against Air Pollution’ in Oct 2018.

- To provide relief to those affected by the floods in Kerala, National Service Scheme (NSS) raised awareness about the calamity among people on the campus and in the neighbourhood and organized a collection drive of monetary and material funds for them. The total amount of voluntary donation collected by NSS was Rs 29,800 which was sent to the Chief Minister’s Distress Relief Fund, online, in Sept 2018. NSS NCU organized a Cleanliness Drive in Oct 2018 at Gurugram. The aim was to clean the surroundings of SBY School by involving the students of the school and creating awareness about the importance of cleanliness and hygiene.
Sports

- Ansh Gupta, 8th Sem, SOL, won the trophy for the ‘Best Player’ of 11th ONGC North-East Tamchon Football Tournament in Jan 2018. This is one of the biggest football tournaments of the North-East and was broadcast live on DD Sports.
- Deepak Sahu, 2nd Year, Dept of CEE, won the 1st position and Gold Medal in Inline Hockey (senior men category) in the 31st Haryana State Roller Skating Championship, held at Yamunanagar, Haryana, in Jan 2018.
- Arun Kumar, 3rd Year CEE student, bagged the 4th position in the Ujjawal Mr India 2018 Body Building & Fitness Championship held at Sonipat, Haryana, in July 2018. Arun Kumar won the Gold Medal in Dead Lift (74 to 83 kg) and Silver Medal in Bench Press (74 to 83 kg) in the Delhi State Power Lifting Championship, in Sept 2018.
- Chitranjan Kumar, BBA-LLB (H), 2nd Sem, SOL, represented India in the World Indoor Archery Championship 2018 held at The Venetian, Macau, China, in Dec 2018 and achieved world Rank No. 39.
- NCU team was declared the Winner of the Tournament in the sports fest Sportopia’18 held at Gurugram, in March 2018 where 16 teams competed.

Conclusion

The University is well on course to its designated goal of ranking amongst the foremost universities of North India. We have the vision, enriched value system, will and commitment, eminent leadership, the ever improving intellectual capital and infrastructure to support our mission and Swami Vivekananda’s words to inspire us: “Arise, Awake and Stop Not till the Goal is Reached”.

To promote excellence in academics and to recognize outperformers, students scoring a CGPA of 9.5 and above are included in a selected Dean's List. This achievement is reflected in their degrees. They form a think tank for the University's academic reforms, and enjoy special privileges and pride of place in the University. They are specially invited to conduct distinguished visitors to the University. This policy has worked significantly to encourage students to strive towards making the grade to be on the Dean's list.

Dean's List of Students Even Semester 2018

UNDER GRADUATE
School of Engineering & Technology
Ananda Sreenidhi
Arunima Dahiya
Eshita Mann
Mahima Munjal
Sudhanshu Sharma
Aaditya Verma
Abhishek Jain
Akansha Mallick
Archita Raj
Charisha Phirani
Geetika Singh
Ishita Mehta
Piyush
Pranav Garg
Shubham Garg
Aadish Goel
Dinky Khatri
Madhur Bahl
Ruchi Arora
Sakshi Garg
Devansh Bhatia
Lakshay Chaudhary
Nandini Gupta
Rohit Malhotra
Shreya Chadha
Sahil-Sehrawat
Aditya Varshney
Sarthak Agarwal
Pankaj Dagar
Nishant Yadav
Pankaj Janghu
Sidharth Sharma
Shubham Sehgal
Radhika Agrawal

School of Engineering & Technology
Rahul Sharma
Vinit
Balinder Singh
Mayank Juneja
Nikhil Juneja
Jitender Verma
Rishu
Laveena Garg

School of Management
Himanshi Sharma
Muskaan
Apovva Mangla
Kajal Jain
Raveena
Rishika Deswal
Gul Pulyani
Shivam Chawla
Aarushi Gilotra
Gunjan Shrivastava
Kirti

School of Management
Shubhangi Bhardwaj
Mitasha Sapra

School of Law
Anju Kapur

School of Law
Aditya Yadav
Ojaswi Kulshrestha
Mukul Sharma
Arohi Kashyap
Mohit Vats
Himangshu Rathee

POST GRADUATE
School of Engineering & Technology
Monika Arora
A Nisha Rani
Purnima Yadav
Akanksha
Odd Semester 2018

UNDER GRADUATE
School of Engineering & Technology
Ananta
Aryan Malhotra
Arunima Dahiya
Eshita Mann
Mahima Munjal
Sahil Khurana
Sudhanshu Sharma
Aaditya Verma
Abhishek Jain
Akansha Mallick
Archita Raj
Charisha Phirani
Geetika Singh
Ishita Mehta
Piyush
Pranav Garg
Aadish Goel
Dinky Khatri
Madhur Bahl
Ruchi Arora
Sakshi Garg
Sahil Sehrawat
Aditya Varshney
Sarthak Agarwal
Nishant Yadav
Vibhu Mehta
Srishti Singhal
Aman Sharma

School of Management
Ritika Rajesh
Taniya Sethi
Himanshi Sharma
Muskaan
Sandhya
Saumya Pandey
Gul Pulyani
Shivam Chawla
Aarushi Gilotra

School of Law
Ayush Rai
Divya Singhal
Priyanshi Sharda
Karan
Ojaswi Kulshrestha
Mukul Sharma
Arohi Kashyap
Mohit Vats
Tashi Vaish

POST GRADUATE
School of Engineering & Technology
Monika Arora
Ajay Kumar
A Nisha Rani
Karishma Yadav
Pintu Lal
Utsav Vohra
Akanksha

School of Management
Shubhangi Bhardwaj

School of Law
Ekta