ANNUAL REPORT 2018

OUR WORLD OF EXCELLENCE

engineering management law

Where Education Bridges The Gap Between The Classroom and The Real World
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University at a Glance

To promote excellence in Technical and Management education The NorthCap University (NCU) was founded in 1996 as the Institute of Technology and Management, Gurgaon, by Educate India Society and affiliated to Maharshi Dayanand University, Rohtak. The institute gained the status of a State private university, ITM University, Gurgaon, in the Academic Year 2009-10 under Act No. 25/2009 by an Act of Legislature of Govt. of Haryana and accorded UGC approval under section 22 of the UGC Act 1956. Based on Government of Haryana’s recommendations the University was granted ‘Autonomous Status’ by MDU- vide Endst. No. 17714-729 dated 16/10/2008, Endst. No. CB-II/08/109-124 dated 07/01/2009 from Maharshi Dayanand University, Rohtak & Endst. No. 2950 dated 09/07/2008 from Director Technical Education, Haryana. In 2009 the Haryana State Legislature recognized the excellence of ITM Autonomous Institute and established it as a University under the Haryana Private Universities (Third Amendment) Act, 25 of 2009. ITM University, now The NorthCap University, thus became an unaided, self-financed private University in 2010 duly recognized by UGC and the Bar Council of India and has the right to confer degrees under Section 22(1) of the UGC Act, 1956. The University is recognized both by UGC and BCI in their select list of universities. The list of recognized universities is available on the UGC website: www.ugc.ac.in/inside/privateuniversity.html#haryana.

Vision, Mission & Core Values

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

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

Core Values:
1. Integrity in all endeavours.
2. Humility, compassion and concern for all.
3. Passion for quality and excellence.
4. Quest for innovation.
5. Leadership and Team Spirit.
6. Autonomy with Accountability.
7. Perseverance.
Visitor of the University

Hon'ble Mr Satyadev Narayan Arya
Governor of Haryana

Governing Body

Mr V Daulet Singh
Chancellor

Prof. Prem Vrat
Pro-Chancellor,
Professor of Eminence & Chief Mentor

Prof. H B Raghavendra
Vice - Chancellor
Member

Mr Shiv Saran Mehra
Founder and Member
Governing Body

Mr Avdhesh Mishra
Founder and Member
Governing Body

Mrs Kavita Mishra
Founder and Member
Governing Body

Mr Rajesh Marwaha
Chartered Accountant
and Member
Governing Body

Ms Jyoti Arora (IAS)
Principal Secretary,
Govt. of Haryana
Higher Education Dept

Col. Bikram Mohanty (Retd)
Registrar,
Member Secretary
Academic Council

Prof. HB Raghavendra
Vice Chancellor
Chairman

Prof. Prem Vrat
Pro-Chancellor, Professor of Eminence & Chief Mentor

Prof. SD Joshi
Professor, Dept. of Electrical Engineering, IIT Delhi

Dr Indu Bhaskar
Scientist E, IOD, & Chief Vigilance Officer, ESIR, Ministry of Science & Technology, New Delhi

Prof. JL Gupta
Professor, MDI, Gurugram

Prof. (Dr) Paramjit S Jasswal
VC, Rajiv Gandhi National University of Law, Punjab

Prof. Rajesh Chadha
Sr Fellow, National Council of Applied Economics Research, New Delhi

Prof. A P Dash
Dean, School of Management

Prof. Swaran Ahuja
Dean (Academics)

Dr Kavita Khanna
Head, Department of Computer Science Engineering and Information Technology

Prof. Parveen Kumar Lohchab
Officiating Head, School of Law

Dr Archanaa Dongre
Officiating Head, Department of Civil & Environmental Engineering

Dr Ambika Devi
Head, Department of Applied Sciences

Dr Parveen Kumar Lohchab
Officiating Head, School of Law

Dr Payal Khurana
Officiating Head, Centre for Languages Learning

Dr Bharti Arora
Dy Dean, Research Development and Industrial Liaison

Dr Anjali Garg
Associate Professor, Department of Electrical, Electronics and Communication Engineering

Col. Bikram Mohanty (Retd)
Registrar, Member Secretary
Chief Guests at Convocations

Late Dr APJ Abdul Kalam, Former President of India at ITM University Campus, Convocation-Class of 2010

Mr Analjit Singh, Chairman, Vodafone and Max New York Life Insurance, Chief Guest, Convocation-Class of 2009

Shri Tarun Das, Director General, Confederation of India Industries (CII), Chief Guest, Convocation-Class of 2002

Dr Surinder Kapur, Founder Chairman, Sona Group, Chief Guest, Convocation-Class of 2001

Padma Bhushan Prof SK Joshi, FNA, Former Director General, CSIR, Chief Guest, Convocation-Class of 2003

Mr Vikram Singh Mehta, Chairman, Brookings India & Former Chairman, Shell Companies in India, Chief Guest, Convocation-Class of 2011

Padma Bhushan Prof SK Joshi, FNA, Former Director General, CSIR, Chief Guest, Convocation-Class of 2003

Mr Vikram Singh Mehta, Chairman, Brookings India & Former Chairman, Shell Companies in India, Chief Guest, Convocation-Class of 2011
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- **Late Dr APJ Abdul Kalam**, Former President of India, Convocation-Class of 2010
- **Mr Analjit Singh**, Chairman, Vodafone and Max New York Life Insurance, Chief Guest, Convocation-Class of 2009
- **Shri Tarun Das**, Director General, Confederation of India Industries (CII), Chief Guest, Convocation-Class of 2002
- **Dr Surinder Kapur**, Founder Chairman, Sona Group, Chief Guest, Convocation-Class of 2001
- **Mr Vikram Singh Mehta**, Chairman, Brookings India & Former Chairman, Shell Companies in India, Chief Guest, Convocation-Class of 2011
- **Padma Bhushan Prof SK Joshi**, FNA, Former Director General, CSIR, Chief Guest, Convocation-Class of 2003
- **Hon'ble Mr Justice AK Patnaik**, Judge, Supreme Court of India, Chief Guest, Degree Distribution Ceremony-Class of 2012
- **Prof. D P Agarwal**, Chairman Union Public Service Commission, Govt. of India, Chief Guest, Convocation-Class of 2013
- **Dr Karan Singh**, Member of Parliament (Rajya Sabha), presented the awards and Certificates of Excellence to the students, Convocation-Class of 2014
- **Shri Balmiki Prasad Singh**, IAS (Retd), Ex-Governor Sikkim, Former Union Home Secretary and Executive Director, World Bank, Chief Guest, Convocation-Class of 2015
- **Dr Bibek Debroy**, Padma Shri, Chairman, PM’s Economic Advisory Council, Chief Guest, Convocation-Class of 2016
- **Hon'ble Governor of Haryana**, Prof. Kaptan Singh Solanki, Chief Guest, Convocation-Class of 2017
## Quality Benchmarks

<table>
<thead>
<tr>
<th>Quality Benchmark</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Established under Haryana Private University Act No. 25 of 2009 (Third Amendment)</td>
<td></td>
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<tr>
<td>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.</td>
<td></td>
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<tr>
<td>Recognised by the Bar Council of India, Govt. of India</td>
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<tr>
<td>MHRD GOVT OF INDIA</td>
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<tr>
<td>Ranked 2nd All India in the University Category in the Swachhta Ranking 2018 by MHRD, Govt of India</td>
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<tr>
<td>University is accredited by the National Assessment and Accreditation Council (NAAC) for period 2016-2021</td>
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<tr>
<td>NIRF</td>
<td></td>
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<tr>
<td>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</td>
<td></td>
</tr>
<tr>
<td>NABL Accredited for the Mechanical Testing of Building &amp; Construction Materials</td>
<td></td>
</tr>
<tr>
<td>Accredited by Accreditation Services for International Colleges (ASIC), United Kingdom, in the category of 'Premier' Universities, with 'Commendable Grades for 2016-2020'</td>
<td></td>
</tr>
<tr>
<td>Member of Association of Commonwealth Universities</td>
<td></td>
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<tr>
<td>Member of the Association of Indian Universities</td>
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<tr>
<td>The NorthCap University Testing Centre established as per ISO/IEC 17025-2005, is NABL Accredited for the Mechanical Testing of Building &amp; Construction Materials</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td></td>
</tr>
<tr>
<td>Institutional Member of American Society for Quality (India)</td>
<td></td>
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<tr>
<td>Member of International Students Exchange Programme</td>
<td></td>
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<tr>
<td>NCU has a tie-up with IBM Career Education and set-up an IBM Lab for Emerging Technologies. IBM conducts courses for the students of ECE, CSE &amp; MBA programmes</td>
<td></td>
</tr>
<tr>
<td>iNurture, our knowledge partner is an educational solution company in the business of designing and delivering in innovative industrial relevant jobs in the field of Animation and VFX, Information Technology, Mobile Application and Analytics</td>
<td></td>
</tr>
<tr>
<td>Recognised as the BEST @govcampus</td>
<td></td>
</tr>
<tr>
<td>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</td>
<td></td>
</tr>
<tr>
<td>School of Management NCU Rank No. 61 amongst All India Top 100 in Business School Ranking for 2016-17 by MBA Universe</td>
<td></td>
</tr>
<tr>
<td>Ranked No. 1 in Private Engineering Institutes state Ranking Haryana and No 48 in all India Top 100 Private Universities League</td>
<td></td>
</tr>
<tr>
<td>Ranked No. 1 in Delhi and Haryana and 55 all over India</td>
<td></td>
</tr>
<tr>
<td>NCU Ranked No. 1 amongst Top Law Schools in Haryana and ranked No. 9 among Law Schools of Eminence all India</td>
<td></td>
</tr>
<tr>
<td>Hansa Research Survey May 2018</td>
<td></td>
</tr>
<tr>
<td>NCU Ranked among Top Private and Deemed Technical Universities All India</td>
<td></td>
</tr>
</tbody>
</table>
Rankings

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.

• Recognized as the University of the Year-2017 by Higher Education Review in their Dec 2017 issue.
Programmes

At The NorthCap University, we consider that exceptional capabilities lie in average individuals, and each day we work to constitute possibilities for that capability to be accomplished. Our students work side by side with their peers and with renowned faculty and researchers. They study abroad, participate in internships, conduct research, lead student organizations, and volunteer in communities close to home and around the world.

In pursuance of this objective, the University is offering high-quality courses at the undergraduate and postgraduate levels.

The following programmes were offered in academic year 2018-19:

I. SCHOOL OF ENGINEERING & TECHNOLOGY
   A. BTech
      - Computer Science and Engineering (CSE)
      - Electronics and Communication Engineering (ECE)
      - Mechanical Engineering (ME)
      - Civil Engineering (CE)
   B. MTech
      - Degree in Computer Science & Engineering with specialization in:
        - Cyber Security or
        - Data Science
      - Degree in Electronics & Communication Engineering with specialization in:
        - Communication Engineering or
        - VLSI Design
      - Degree in Mechanical Engineering with specialization in:
        - Thermal Engineering or
        - Mechanical Engineering Design
      - Degree in Civil Engineering with specialization in:
        - Structural Engineering or
        - Construction Engineering & Management
   C. BSc Mathematics (Hons)
   D. BSc Physics (Hons)
   E. MSc Mathematics

II. SCHOOL OF MANAGEMENT
    - BBA
    - BCom (Hons)
    - MBA

III. SCHOOL OF LAW
    - BBA-LLB (Hons)
    - LLM

IV. PhD in Engineering, Management, Law, Sciences & English
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   A. BTech
      • Computer Science and Engineering (CSE)
      • Electronics and Communication Engineering (ECE)
      • Mechanical Engineering (ME)
      • Civil Engineering (CE)
   B. MTech
      • Degree in Computer Science & Engineering with specialization in:
        - Cyber Security or
        - Data Science
      • Degree in Electronics & Communication Engineering with specialization in:
        - Communication Engineering or
        - VLSI Design
      • Degree in Mechanical Engineering with specialization in:
        - Thermal Engineering or
        - Mechanical Engineering Design
      • Degree in Civil Engineering with specialization in:
        - Structural Engineering or
        - Construction Engineering & Management

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

II. SCHOOL OF MANAGEMENT
   • BBA
   • BCom (Hons)
   • MBA

III. SCHOOL OF LAW
   • BBA-LLB (Hons)
   • LLM

IV. PhD in Engineering, Management, Law, Sciences & English

Hon'ble Mr Justice Dipak Misra
Former Chief Justice of India

Justice Dipak Misra was born in 1953 and studied Law at Madhusudan Law College, Cuttack. He enrolled at the Bar Council of India on 14 Feb 1977 and practiced at the Orissa High Court and the Service Tribunal. He was first appointed as an Additional Judge of the Orissa High Court in 1996. In the following year, on 19 Dec 1997, he was made a permanent Judge. In Dec 2009 Justice Dipak Misra was appointed the Chief Justice of Patna High Court where he served until May 2010, when he was appointed the Chief Justice of Delhi High Court. He was elevated to the Supreme Court on 10 Oct 2011 and served as the 45th Chief Justice of India from 28 Aug 2017 to 2 Oct 2018.
Chief Guest, Hon’ble Mr Justice Dipak Misra, Former Chief Justice of India; Chancellor, Mr V Daulet Singh; Members of the Governing Body, Mr Avdhesh Mishra, Mr Shiv Saran Mehra, Pro-Chancellor, Prof. Prem Vrat, distinguished colleagues on the dais, invited dignitaries, members of the press, faculty and staff, parents, dear students, ladies and gentlemen. Let me begin by saying good evening to everybody, and thank you for being here with us.

To begin with, I wish to thank our Chief Guest, Mr Justice Dipak Misra, Former Chief Justice of India, for sparing his valuable time and for his consent to be the Chief Guest at this solemn occasion.

It is an honour and privilege for me to welcome you to the Seventh Annual Convocation of the University.

Sir, the University has come a long way since its inception in 1996, continuously evolving and challenging conventions in tune with the requirements of the 21st century. We not only keep pace with various advancements, but also strive to visualize future requirements and reorient our curricula accordingly. In a span of a few years, we have grown to be one of the foremost educational institutions in North India. 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 University ranked 2nd All India in the Swachhata Ranking 2018 by Govt of India. The NorthCap University was accredited in May 2016 by the National Assessment and Accreditation Council (NAAC) for a period of five years i.e. 2016-2021. Accreditation Services for International Colleges (ASIC), UK reaccredited the University in the category of ‘Premier’ Universities with ‘Commendable’ Grades, for 2016-2020. The accolades by various organizations, our consistent top rankings in different surveys, a good placement record of students in reputed organizations – all give us the impetus to further improve ourselves.

Sir, I am pleased to present before you the Annual Report for the year 2018 of our University which is tabled before you. As the detailed Annual Report is in your hands, I shall only touch upon some of the salient features, defining our sustained focus on quality and the efforts we made during the year 2018. The University offers programmes in a wide range of professional fields in diverse areas of Engineering, Applied Sciences, Management and Law, at Undergraduate, Postgraduate and PhD levels approved by relevant bodies and endorsed by the Haryana State Government and the University Grants Commission, Govt of India.

The University plays a crucial role in preparing students for a sound professional career. We strive to empower our youth capital with skills, abilities and attitude that will enable them to win deals, drive decisions and go on to become leaders and influencers and determine the fate of companies. To showcase students’ skills, abilities etc. to potential employers, ‘E-portfolio’- a unique 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 for enhanced employability. We have been able to achieve an enviable placement record, both nationally and internationally of over 90% of eligible students of Class of 2018 being placed in core and other companies from the campus. To enhance placements, NCU has taken a new initiative to facilitate evaluation of students’ employment readiness and gap analysis by outsourcing it to the companies ‘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, it also helps to generate employment leads for the students with its empanelled companies.

The University’s focus is on building and strengthening association with industries and the Government for community development programmes and for providing opportunities to students in India and abroad. Context Learning has been introduced to help bridge the divide between classroom learning and the rapidly changing real world of newer technologies.
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. NCU has collaborations with reputed industries such as Daikin, MACE, Space Application Centre (ISRO), IBM, Mitsubishi Electric India Pvt Ltd, Delta Power Solutions India Pvt Ltd, Beijing Wavelspectrum Science and Technonology Co China, CADD Centre, Power Grid Corp of India and many more.

NCU has exchange programmes with world renowned Universities namely ITB Ireland, University of Chester, UK; University of Regina, Canada; Michigan Technological University, USA; University of Dayton, Ohio, USA; Shibaura Institute of Technology, Japan; MAGES Institute of Excellence, Singapore, among others. 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 Agreements. Recently the University has collaborated with National Technical Research Organization, New Delhi, for collaborative working arrangement on specific research and development projects.

NCU has academic associations with leading IITs for three programmes i.e. ‘Spoken Tutorials’, ‘Quality Enhancement in Engineering Education Program’ (QEEE programme), 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), National Programme on Technology Enhanced Learning (NPTEL), online courses of University of Maryland/Illinois, UGC MOOCs, E-Pathshala, Swayam Prabha among others.

The Incubation Centre is a facility fostered at NCU for all students to propose, create and incubate their ideas irrespective of the programmes which they are studying. It is worthwhile to note that students in the Incubation Centre have taken up an Online Food Aggregator project in collaboration with a start-up company. We have a well-equipped Central Research Facility and all labs and workshops have been upgraded with the latest equipment. The Vice-Chancellor’s Innovation Fund continues to encourage innovative ideas amongst faculty and students. The Best Project Awards have motivated undergraduate student research at NCU. Future plans involve major investment in new, cutting edge equipment and development of research laboratories. A Tinkering Lab is being nurtured as a central facility to encourage all students to work on projects of their interest and create artefacts that would bring them satisfaction and gain confidence. The NorthCap University Testing Center (NCUTC) has been reaccredited by NABL for Mechanical Testing of building materials for 2018-19.

A significant part of the University’s overall research is undertaken in collaboration with industry partners. NCU itself also supports research students and provides related funding for equipment etc. During the reporting year, ten research projects for a total amount of Rs 2.36 crore have been sanctioned by funding agencies and Rs 1.48 crore has been received till date. One DST (WOS-A) project of Rs. 36.96 Lakhs was technically approved on 20 Feb 2018. In addition to these, 12 research projects have been submitted to various funding agencies. 120 doctoral students are currently registered with the University to carry out their doctoral dissertation research work: SOET – 96, SOL - 11, SOM - 13. Five students have submitted PhD theses and six have submitted PhD synopsis, during the year.

Several community schemes floated by Government of India and Government of Haryana like Pradhan Mantri Ujjwala Yojana, Ujwal Bharat, National Solar Mission, India’s Energy Storage Mission, Swachh Bharat Abhiyan etc. are being treated as co-curricular activities which would help students in understanding Bharat before serving India. On 1 Oct 2018 The NorthCap
University, was ranked 2nd 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.

The University takes care of not only meritorious students but is also providing Value Added Courses with training modules for weak/slow learners. This is helping in improving their skill sets and makes them feel good not only at the University but also enhances their employment opportunities. The University recently started a Parent Information System which keeps the parents informed about the progress of their wards. The University has established a Thought Lab with the aim of developing a positive attitude, reducing negative energy, stress and improving overall development of students and staff. Channelizing thoughts effectively will improve the learning experience of our students. 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 to evolve and take action as and when required, without delay.

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 foot print, 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 conducts programmes to sensitize and mobilize community participation.

I would like to take this opportunity to congratulate our new graduates who are now on the threshold of beginning an exciting new phase of their relationship with the University as Alumni. Know that as alumni, you will carry the good name of The NorthCap University with you everywhere you go. Always remember that your personality, conduct and behaviour ought to do credit to the University. NCU’s vibrant alumni network has made its mark in India and overseas by attaining leadership positions in corporations, creating successful ventures and co-founded several successful companies. Our alumni are very important ambassadors and friends of the University, and can make an important contribution to the University in many areas, for example, by promoting our organization and the opportunities we provide for quality learning, research and preparation for careers as well as you offering your own support, advice and mentoring the current students.

In enabling your education and development we have strived to build the next generation of empowered citizens with sound discretion and conduct, who will not just be a trailblazer in their own right but will also enhance the prestige of their University and the country. Keep yourself on the path of steady growth. Your graduation is not the end of your learning but rather the start of a lifelong journey of continuous learning.

Today, as you leave, your biggest takeaways will not just be your marks and your degrees but the experiences you have had, the relationships you built and the things you learnt about yourself. We urge you to never forget your alma mater, stay in touch, contribute back and do whatever you can to further its glory. We wish you all a bright future and a meaningful life ahead. I once again congratulate each one of you on your achievements and on behalf of this unique institution, wish you every happiness and success in the great adventure of life and urge you to dedicate yourselves to the service of the nation and humanity.

May God bless you!

Thank you
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In enabling your education and development we have strived to build the next generation of empowered citizens with sound discretion and conduct, who will not just be a trailblazer in their own right but will also enhance the prestige of their University and the country. Keep yourself on the path of steady growth. Your graduation is not the end of your learning but rather the start of a lifelong journey of continuous learning.

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May God bless you!

Thank you

Academic Advisory Board

The Academic Advisory Board is the supreme advisory body of The NorthCap University comprising of eminent experts from the industry and national and international institutions. They form the intellectual think-tank of the University and come together each year for an interaction focused on development directions, and to discus and advise the apex forum on strategic options and choices for the futuristic growth of the University.

The Seventh meeting of the Academic Advisory Board was held on 24 February 2018 to review and advise on future plans for the growth and development of the University. They discussed key issues such as:

• Strategic Initiatives of the University
• Branding Activities of NCU
• Expanding activities of Innovation Incubation Centre
• Evaluation process of faculty members as per academic planning for achieving self directed goals
• Establishment of Chair Professors and Centre of Excellence

Members of the Board also interacted with faculty members and students on the Dean’s List, sharing their thoughts and inspiring them to be innovators, ground breakers and nation builders.
Academic Advisory Board

Sitting (L to R):

Prof. Swaran Ahuja, Sr. Professor and Dean Academics - The NorthCap University.

2. Prof. Ravindra Ojha, Director, School of Engineering & Technology - The NorthCap University.


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

5. Prof. PS Rana, Chairman - Construction Industry Development Council.

6. Prof. Pradeep Kumar, Professor - Indian Institute of Technology, Roorkee.

7. Prof. Kehar Singh, Ex-Dean & Emeritus Fellow - Indian Institute of Technology, Delhi.

8. Mr. Shiv Saran Mehra, Founder & Member, Governing Body – The NorthCap University.

9. Prof. Prem Vrat, Pro-Chancellor, Prof. of Eminence & Chief Mentor – The NorthCap University.

10. Prof. (Dr.) K.L Chopra, Padma Shri, Former Director – Indian Institute of Technology, Kharagpur.

11. Dr. Devi Singh, Vice-Chancellor - FLAME University, Pune.

12. Prof. Karmeshu, Professor & Dean, School of Computer & Systems Sciences - JNU, New Delhi.

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


15. Mr. B K Gupta, Director, School of Professional Attachment – The NorthCap University.
Faculty Mentors

Prof. Prem Vrat
B.Tech. (Hons.), MTech
IIT Kharagpur
Doctor of Engineering
(Honoris Causa)
FNAE, FNASc.,
FWAPS, FISTE, FIIIE
Chief Mentor

Dr. Rajesh Chadha
Honorary Distinguished Research Professor,
Senior Fellow-National Council of Applied Economic Research BSc (H), MA(Eco), University of Delhi
PhD, IIT, Delhi

Professor Pushpesh Pant
Padma Shri
PhD (IIT)
Distinguished Professor Emeritus,
School of Law

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

Prof. Kasturi Lal Chopra
Padma Shri
BSc (Hons), MSc, PhD
FNA, FNASc, FNASc, FNAE, DSc(hc)
Former Director IIT Kharagpur
SS Bhatnagar Awardee

Prof. Indira K Varma
MSc, DPhil, PhD, DSc,
Glasgow University
Honorary Doctorate Degree

Dr. P K. Swarup
BE (Civil), ME (Hydraulic Eng.),
PhD, University of Roorkee

Dr. C R Prasad
BE, MBA, DSc (Honoris Causa),
FNAE, FIE, FIME, MAIMA
Chairman & Managing Director
Everest Power Private Limited.
Former Chairman & Managing Director of Gas Authority of India Ltd.

Prof. Surendra Kumar Kaushik
FNAE, PhD (Engg.)
FIE (India)
AICTE-INAE Distinguished Professor,
Formerly Professor and Head,
Dept. of Civil Engineering,
IIT Roorkee

Dr. Karmeshu
PhD, MSc, BSc (Hons)
Professor & Dean, School of Computer & Systems Sciences,
Jawaharlal Nehru University,
New Delhi
SS Bhatnagar Awardee

Prof. B Chandra
PhD
Former Professor
Department of CSE
Indian Institute of Technology, Delhi

Prof. B K Das
B.Tech (IIT Kharagpur),
MS (Illinois), PhD (Illinois)
FNAE, FNASc, FNASc
Formerly Dean-RDIL,
The NorthCap University,
Gurugram

Prof. Amitava Sen Gupta
PhD, MSc, BSc,
University of Delhi
Honorary Distinguished Research Professor and Mentor,
RDIL
Institutional Meetings

The management of The NorthCap University is powered by the passion to make the University a true centre of academic and research excellence in India. The members of various University bodies have worked zealously throughout the year to make a significant difference in enhancing the academic life at the University. The Governing Body, Board of Management, Academic Advisory Board, Academic Council, the Committee on Research Development and Industrial Liaison, Internal Quality Assurance Cell (IQAC) and operational committees at the Schools and Departmental levels worked in sync, refurbishing quality systems, processes and practices, to make them current and impactful, with an eye on long-term outcomes.

NCU accords high priority to research, as pursuit of new knowledge not only leads to higher technical and scientific competence of faculty members and students, but its output is also beneficial to industry and society at large.

During the period of reporting, the distinguished members evaluated the efficacy and relevance of existing academic processes and programmes and devised new ways and methods to meet future challenges. The year 2018 was marked by some remarkable initiatives directed to the achievement of our designated mission. New programmes, online courses from various universities across the world and MOOCs run by UGC, courses in promising areas of the future, context learning and special modules for slow learners were introduced. A NavIC Lab has been set up by the Space Application Centre (SAC), ISRO, Ahmedabad which has enhanced the research image of the University. Thought Lab, Tinkering Lab, Office of International Relationship have been set up and E-Portfolio of students are being maintained. The Internal Quality Assurance Cell (IQAC) at NCU is working towards quality assurance in a systematic manner according to a time plan.

The competencies of our high-quality faculty were further enhanced by mentoring, faculty development programmes and special lecture series by eminent scholars from different domains. Individual career progression and support for research was specifically addressed. We also reinforced our industry-academia cooperation and national and international collaborations. Details of these initiatives are given in the succeeding pages of this Report.

Meetings of various statutory bodies have been regularly held during the reporting year, as shown below:

- **Academic Council**
  - 27 January 2018
  - 9 June 2018
  - 3 November 2018

- **Board of Management**
  - 28 March 2018
  - 6 July 2018
  - 28 September 2018
  - 30 November 2018

- **Governing Body**
  - 25 May 2018
  - 23 August 2018

Internal Audit

A robust internal audit system has been established at the University which comprises of academic audit of our processes as per laid down criteria. The Audit Team consists of senior academicians of NCU and two eminent external experts. The Sixth Internal Audit of all three Schools of Engineering, Management and Law was conducted from 7-10 August 2018. The aim was twofold i.e. first, to assess the Schools/Departments for their strengths and weaknesses and give them direction for future growth and secondly, to prepare them for improved NAAC grading as well as programme accreditation by NBA, both in terms of documentation, rectifying weaknesses and ensuring positive outcomes.

Departments under SOET performed well with the top honours being taken by the Dept of EECE and Dept of ME coming a close second. The School of Law was observed to be satisfactory while School of Management has been advised to put in additional efforts.

Officers of the University

- **Prof. Swaran Ahuja**
  Dean (Academics)

- **Prof. A P Dash**
  Dean, School of Management

- **Wg Cdr (Retd) Manohar Vasudev**
  Controller of Examinations

- **Dr Bharti Arora**
  Dy Dean, Research Development and Industrial Liaison

- **Ms Deepika Deswal**
  Dy Manager (HR)

- **Dr Manoj Kumar Gopaliya**
  Deputy Dean, Academics, Undergraduate Studies

- **Ms Kiran Mrig**
  Dy Manager (Students) Admin

- **Ms Kirti Singhal**
  Chief Finance & Accounts Officer

- **Ms Shivani Govil**
  Library Head

- **Mr Sudesh Kumar**
  Sports Officer
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Departments under SOET performed well with the top honours being taken by the Dept of EECE and Dept of ME coming a close second. The School of Law was observed to be satisfactory while School of Management has been advised to put in additional efforts.
Accreditations and Statutory Approvals

The NorthCap University was established under the Haryana Private University (Third amendment) Act No 25 of 2009, Ordinance No 2 of 2015 dated 22 July 2015, Legislative Department Haryana Government. The University is 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. The University is also recognised by the Bar Council of India.

- **National Assessment and Accreditation Council (NAAC)** has accredited The NorthCap University for five years vide their Certificate No. EC(SC)/15/A&A/85.1 dated 25 May 2016 from 2016-2021.
- **Bar Council of India (BCI)** approval for our School of Law has been received for five year BBA LLB (H) for the academic year 2018-19, vide BCI Letter No. BCI:D:848/2018(LE/Afflin) dated: 28 June 2018.
- **Accreditation Services for International Colleges (ASIC) UK**: A respected international accreditation body for academic institutions worldwide re-accredited The NorthCap University with a status of ‘Premier University’ with ‘Commendable’ grades for 2016-2020.
- **Association of Indian Universities (AIU)**: The University is 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 and research.

### Total Publications (2018)

<table>
<thead>
<tr>
<th>Publications</th>
<th>Number</th>
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<tbody>
<tr>
<td>Journal Articles</td>
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<td>Conference Proceedings</td>
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<td>Book Chapters</td>
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<tr>
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<td>29</td>
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</tr>
</tbody>
</table>
Dean's List of Students

To promote excellence in academics and to recognize outperformers, students scoring a CGPA of 9.5 and above or securing top position (First position) in the batch of that programme (across all sections) with a minimum CGPA of 9.00 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.

Odd Semester 2017

Even Semester 2018
Recent initiatives at the University

Board of Management's Initiatives

Constitution of Sub-Committees for Governance of the University

The University has constituted Sub-Committees for the Governance of the University in which the students are also members. The list of the Sub-committees is as under:

- Infrastructure Sub-committee
- ERP Sub-committee
- Academics Sub-committee
- Feedback (Student Redressal Mechanism) Sub-committee
- Library Sub-committee
- Admissions Sub-committee
- IT & related issues Sub-committee
- Career and Placements Sub-committee
- Professional Societies Sub-committee
- Student Activity Leadership Sub-committee
- Alumni Connect Sub-committee

These Sub-committees have regular meetings once a month, based on an agenda, and consider various pending and arising issues. Suggestions by the Sub-committees have been found to be very effective in resolving the day to day problems of the students.

Based on regular feedback, action is taken by the University like 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.

Faculty

- Number of new members of faculty who joined during the year - 24
- Number of members of faculty promoted during the year - 34
- Number of members of faculty awarded PhD degree during the year - 24

Rs 3,15,000/- have been provided through the Vice-Chancellor's Innovation Fund for students' projects, during the reporting year.

Curriculum Development

Some of the highlights of the revised curriculum are:

- 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.
- Special skill modules for slow learners have been introduce to enhance their employability.
- MOOCs have been made mandatory in all programmes to develop self-directed lifelong learning.
- Integrated 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
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**Academic Initiatives**

In line with its vision of being known for learning innovations and academic excellence, the University takes steps to improve its academic standards by aligning and upgrading academic plans as per changing technology and employment scenario. NCU’s innovative approach and adopting of best practices helps it to stay ahead of the curve. Several initiatives have been taken during the reporting year to enrich the academic environment particularly in the learning processes to enhance student employability, deployability and overall student experience at NCU.

**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 etc. 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, therefore more project based learning introduced and 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 difficult and interdisciplinary experiments to complex 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.
- Special skill modules for slow learners have been introduce to enhance their employability.

Departments are facilitating students to acquire certain additional skills which are currently in demand by industry or where the students have aptitude. Some of the skill development modules conducted include VLSI design, Primavera, Android /mobile app, CCNA certification etc.

- 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.

This curriculum revision has been done in programmes across all Schools
Teaching Learning Initiatives

NCU has introduced several innovations in its teaching learning process to make it more practical oriented with focus on deployability. Some of these are:

- Industry association through Context Learning wherein classroom learning is related to real life world and consists of some relevant part of the syllabus in a course by industry expert, video demonstrations, industry visits to see demonstration of concepts, mini projects, guest lectures etc.
- LMS system for 100% courses & other ICT tools to afford self-paced learning for students
- Programme flow charts have been developed for each curriculum to clearly indicate the flow of courses to students and help them in choosing various electives.
- Thousands of e-books and e-journals with Wi-Fi campus for easy access to information resources such as video lectures through Swayam, NPTEL, Swayam Prabha, E-Pathshala, Coursera etc.
- Plagiarism check on all theses work, project reports and research publications as per new UGC guidelines
- High emphasis on industry connect through multiple internships for students via strong industry academia interface
- Industry live projects for students to keep them abreast with newer technologies
- Special focus on improvement of weak students through counselling and remedial classes and so on

Induction Programme

A 10 day Induction Programme for new students was conducted for the first time at the University from 23 July 2018 to 3 Aug 2018. The objective of the programme was to help the new 1st year students adjust in the new environment, promote bonding amongst students, freshers and faculty members. The programme was also designed to sensitize the students towards their academic interests and activities, besides inculcating in them the ethos of our University, with a larger sense of purpose. The major activities during the programme were lecture series by eminent persons such as Prof. BK Kuthiala, Chairman, Higher Education who addressed the students on the first day, introduction to basic computer skills, fundamentals of mathematics, mini projects, creation of student portfolio, visit to industry / other educational sites, aptitude tests & analysis, sports, extra and co-curricular activities. An interesting feature of this programme was introduction of the students to the ‘Thought Lab’ with a session on positive thinking by Brahma Kumaris.
New Labs

A number of new labs have been set up during the reporting year in various depts some in association with leading industry and Government departments as partners to bring in new technologies for the students. These are:

- **NavIC Lab in collaboration with ISRO**

As an outcome of the MoU signed between NCU and SAC-ISRO, Ahmedabad, on 5 Feb 2018, the Navigation with Indian Constellation (NavIC) Lab was inaugurated on 1 May 2018 at the University.

The inauguration was followed by a workshop on NavIC. Research will be carried out on mutually agreed topics under the MoU. The NavIC Lab shall help in promoting multidisciplinary research in area of satellite navigation.

- **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.

The Tinkering Lab was inaugurated by Prof BK Kuthiala, Chairperson Haryana Higher Education Council, Govt of Haryana, on 21 July 2018. Some of the best and award-winning projects have been displayed in the lab to motivate the students for working beyond the boundaries of curriculum. Prof. Kuthiala was impressed by the type of work done by students of the University.

- **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. The University takes pride in being one of the pioneer institutions in Delhi/NCR to offer this new concept for the benefit of its students. This facility is acting as a catalyst for the development of a robust mind and enabling students to sustain through difficult times. Currently, Certificate courses are being run at the Thought Lab for both students and faculty.
• **The Centre for Development in Energy and Environment Law (CDEEP)**

CDEEP was established on 23 Nov 2017 in the School of Law to fill the void of research credentials in Environment & Energy laws and policy. The Centre envisions achieving inter alia the following objectives:

- To provide a platform for inter-disciplinary discussion, research and study of international and national law and policy in the area
- To provide a consultative platform by organizing various workshops, training seminars for the stakeholders, etc.
- To publish policy-papers, reports on status and carry out surveys on cutting-edge issues of contemporary subjects in the area.

**Upgradation of Labs**

The University has a regular annual budget for lab upgradation and labs in all the Schools/Departments have been equipped with the latest equipment and facilities to meet the requirements of the revised curriculum. Many new equipment and software have been added including MATLAB 2017 Campus under which all students and faculty have access to the latest MATLAB on their own machines.

**Continuation of NABL Accreditation for NCU Testing Centre**

Based on the assessment report evaluated by NABL for 2017-18, The NorthCap University Testing Center (NCUTC) has been found following the standards according to ISO/IEC 17025:2005 within the scope and continues to be accredited for Mechanical Testing of building materials for 2018-19.

**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) on 26 March 2018 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 will be one of its kind to be set up by the
MAGES Institute of Excellence, Singapore
NCU signed a Partnership Agreement with MAGES Institute of Excellence, Singapore on 8 August 2018. 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. MAGES Institute of Excellence recently conducted a six-week summer internship programme for NCU’s Final-year students from 4 June to 13 July 2018, which was highly appreciated by all.

Shibaura Institute of Technology
In its pursuit of academic excellence and to provide global exposure to students and faculty, on 7 Aug 2018 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.

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.

Other Initiatives
- 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.

- 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 résumé 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. 1st Year students were initiated into preparation of their E-portfolio during the induction programme.
More faculty members are being encouraged to contribute to this national initiative and the work is in progress.

Strategic Plans for Schools & Departments

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. Periodic review about the progress is monitored. Faculty appraisal has been redesigned and made inclusive so that strength of each faculty can be captured and recognized not only in teaching and research but also in outreach and skill development.

Faculty Module Link

- Prof. Prabha Sharma  Probability Theory https://nptel.ac.in/syllabus/111104079/ and Applications
- Linear programmeming  https://nptel.ac.in/syllabus/111104027/ and Extensions
- Ms Archana Sarma Cyber Stalking, Cyber Bullying http://youtu.be/8PZ8me8lfsk (Asst. Prof. SOL) & Cyber Defamation for a course on Information & Communication Technology

Contribution to Swayam & Swayama Prabha e-platforms

Some of our senior faculty members have contributed modules to MOOC courses as under which are being extensively used on the SWAYAM platform of MHRD, Govt of India.

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.

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 reporting year the Centre has taken up an Online Food Aggregator project in collaboration with a start-up company, City Innovates Pvt Ltd, Gurugram. University has also identified several student projects to incubate further through University's internal tech fest 'Technovation'. Several projects are in the pipeline and are in different phases of development.

Faculty Development

Faculty development is an important requirement for maintaining necessary standards of delivery. In view of revision in curriculum and innovations in teaching pedagogy, other initiatives taken during the year are as follows:

All Schools/Departments organized six day Faculty Development Programmes (FDP) at the end of last semester in June 2018.

- Faculty Externships

Regular industry exposure to the faculty is very important to connect classroom teaching to the real world. To this end a new initiative of Faculty Externship was introduced last year in the Dept of ECE. In each semester faculty members spent three to five days in a selected industry. This not only provided the required industry exposure to faculty members but also offered opportunities for enhancing student internships, joint project work and good quality placements. The results were encouraging and this has also been extended to other Departments this year. Many faculty members from the Depts of CSE, ME and CEE were on externships and the programme shall continue.
More faculty members are being encouraged to contribute to this national initiative and the work is in progress.

**Strategic Plans for Schools & Departments**

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. Periodic review about the progress is monitored. Faculty appraisal has been redesigned and made inclusive so that strength of each faculty can be captured and recognized not only in teaching and research but also in outreach and skill development.

### Contribution to Swayam & Swayama Prabha e-platforms

Some of our senior faculty members have contributed modules to MOOC courses as under which are being extensively used on the SWAYAM platform of MHRD, Govt of India.

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Module</th>
<th>Link</th>
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</thead>
<tbody>
<tr>
<td>Prof. Prabha Sharma</td>
<td>Probability Theory and Applications</td>
<td><a href="https://nptel.ac.in/syllabus/111104079/">https://nptel.ac.in/syllabus/111104079/</a></td>
</tr>
<tr>
<td></td>
<td>Linear programming and Extensions</td>
<td><a href="https://nptel.ac.in/syllabus/111104027/">https://nptel.ac.in/syllabus/111104027/</a></td>
</tr>
<tr>
<td>Ms Archana Sarma (Asst. Prof. SOL)</td>
<td>Cyber Stalking, Cyber Bullying &amp; Cyber Defamation for a course on Information &amp; Communication Technology</td>
<td><a href="http://youtu.be/8PZ8me8lfsk">http://youtu.be/8PZ8me8lfsk</a></td>
</tr>
<tr>
<td>Ms Neha Kapoor (Asst. Prof. SOL)</td>
<td>Bonus Issue, Features, Conditions &amp; Restrictions</td>
<td><a href="https://www.youtube.com/watch?v=ZHMsxhu72vQ">https://www.youtube.com/watch?v=ZHMsxhu72vQ</a></td>
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</table>

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Faculty Recognitions and Awards

Prof. Prem Vrat, Pro-Chancellor, NCU, was conferred ‘India’s Most Visionary EduLeadership Award’ by Shri Pranab Mukherjee, the 13th President of India at the 5th Estate Summit 2017, National Convention of eduLeaders, ReTHINK INDIA on 11 December 2017 at CSOI, New Delhi.

Prof. Prem Vrat, was conferred the Life Time Achievement Award by the Systems Society of India (SSI) and Dayalbagh Educational Institute (DEI) Agra on 5 March 2018 at Agra by Shri Prem Prashant, the President of DEI and Chancellor of Dayalbagh deemed university and former Chief Secretary of Haryana.

Dr Esha Jain, Assistant Professor, School of Management, won the ‘Best Paper Award’ for her research paper titled ‘Women Entrepreneurship in India – Challenges and Actions Taken’ at the 34th National Seminar on ‘Make In India: To Go Global’ organized by Tecnia Institute of Advanced Studies, GGSIPU, Delhi on 26 Oct 2018.

Dr Arjyajyoti Goswami, Assistant Professor, Dept of ME, won the Second Best Paper Award in Computational Nanotechnology category for his paper titled ‘Simulation and Experimental Characterization of Nanograting Array for Reflectance Reduction in c-Si’ at the international conference jointly organized by Department of Mechanical & Industrial Engineering and Center of Nanotechnology, IIT Roorkee held from 6-8 Dec 2017.
Dr Sangeet Srivastava, Assistant Professor, Dept of APS, was awarded ’Certificate of Outstanding Contribution in Reviewing’ by the Indian Heart Journal for reviews during the period Aug-Nov 2017. The journal has a CiteScore of 0.62 and is published by the Elsevier Group, The Netherlands.

Dr Sangeet Srivastava is on a teaching assignment at School of Mathematical Sciences, College of Natural, Applied and Health Sciences, Wenzhou-Kean University, Wenzhou, China (an extension campus of Kean University, New Jersey, USA) since Sept 2018.

Dr Hukum Singh, Associate Professor, Dept of APS, was awarded Certificate of Outstanding Contribution in Reviewing by prestigious Elsevier journal ‘Optics and Lasers in Engineering’ for the year 2017 and has been conferred the designation ’2018 OSA Senior Member’ by The Optical Society (OSA), USA.

Ms Jyotika Pruthi, Assistant Professor, Dept of CSE&IT, has been selected for the Albert Nelson Marquis Lifetime Achievement Award 2018 by Marquis Who’s Who, the best known and well respected biographical resource featuring world’s most accomplished individuals since 1899.

Dr Rita Chhikara, Associate Professor, Dept of CSE&IT, was awarded for ’Teaching and Research Excellence’ by Innovative Research Developers and Publishers (IRDP) group of journals at Chennai on 30 May 2018.

Dr Balwinder Singh Slathia, Assistant Professor, SOL, was invited to Co-chair a Technical Session-VIII ’Sustainable Development-Socio economic, legal and Political Dimensions’ in National Conference on Climate Change and Sustainable Development: Perspectives and Transformational Challenges organized by the Department of Law, University of Jammu and CEERA, National Law School of India University, Bengaluru, on 7 and 8 Nov 2017.

Dr Tejpal Singh Chundawat, Assistant Professor, Dept of APS, was appointed member of the editorial board of ’ISST Journal of Applied Chemistry (IJAC)’ a UGC approved journal with ISSN No. of 0976-7355.

Dr Seema Thakran, Assistant Professor, Dept of APS, was appointed reviewer for ZbMATH (formerly Zentralblatt MATH), the oldest and most comprehensive reviewing service in mathematics, providing reviews of peer-reviewed published articles and books in all fields of mathematics.

Dr Sushmita B Waraich was invited as a Guest of Honour to chair a session on 'Human Resources Practices and Community Development' at the National Conference on ‘Changing Economic and Business Environment in India: Prospects and Challenges’ organized by the Christ Institute of Management, Ghaziabad on 10 Feb 2018.

Dr Sushmita Biswal Waraich was invited to attend the Brainstorming Session organized by Department of Science & Technology (DST) on Empowerment of Women Technocrats in R & D with special reference to the manufacturing sector held at Thiruvananthapuram from 27-28th April 2018.

Dr Sonali Yadav, Assistant Professor, SOM, presented a ‘Case Teaching Plan’ as team leader in the ‘Case method Workshop’ at IIM Rohtak from 2-3 Dec 2017. A research paper titled ’Stock Market Reaction to Digital India Move! An event study’ was presented by Dr Sonali Yadav, at the 5th PAN-IIM, World Management Conference held from 14-16 Dec 2017 at IIM Lucknow.

Dr Rohit Singh Lather, Associate Professor, Dept of ME, was a Technical Paper Reviewer of the International Federation of Automotive Engineering Societies (FISITA) for ’FISITA 2018 World Automotive Congress’ held at Chennai, from 2–5 Oct 2018. World Automotive Congress is one of the biggest automotive events in the world.

Dr Praveen Kumar Lohchab was invited to judge the 3rd Amity National Moot Court Competition, 2018 held from 9-11 March 2018 at Amity University, Gurugram.

Ms Pallavi Bajpai, Assistant Professor, SOL, was invited to chair a Technical Session at the International Seminar on Women and Law on 13 Jan 2018 organised by the Indian Law Institute in association with Law Mantra.

Dr Rekha Vig, Associate Professor, Dept of EECE, organized and chaired a special session on ‘Image Processing and its applications’ in IEEE conference IndiaCom-2018 at BVICAM, New Delhi. 20 papers were presented in her session. She was also a TPC member of another special session ’Advances in circuits, systems and signals’ in the same conference. Dr Rekha Vig chaired a special session on ’Image Processing and its Applications’ at Elsevier ICCIDS Conference 2018 at NCU. 12 papers were presented in her session. She was also a part of the conference as programme committee member and reviewed papers for the same.

Dr Vijendra Singh, Associate Professor, Dept of CSE&IT, chaired a session in the International Conference on Wireless, Intelligent, and Distributed Environment for Communication (WIDECOM 2018), at SRM University, Sonipat, Haryana on 18 Feb 2018.
Senior Appointments

- **Dr Ambika Prasad Dash**, joined as Professor, Dy Dean-MDP, & Officiating Dean, School of Management on 3 May 2018.
- **Dr Archanaa Dongre**, joined as Associate Professor and Officiating Head of Department of Civil & Environmental Engineering on 1 Aug 2018.
- **Dr Manoj Kumar Gopaliya**, Associate Professor, appointed Dy Dean, UG Studies on 2 Jan 2018.
- **Dr Jyotsna Singh**, Assistant Professor, appointed Dy Dean - Student Affairs on 6 Aug 2018.

Faculty Performance Awards

With a view to reward performance and promote better standards of academics and research, annual faculty performance based awards are announced by The NorthCap University each year. Based on the annual process, Variable Performance Allowance is given to deserving faculty members identified during the appraisal. Financial assistance is also provided to faculty members attending national conferences/seminars/symposia etc.

Teacher’s Day Celebrations

The University celebrated Teacher’s Day on 5 Sept 2018 to honour the teachers for their praiseworthy contribution to the University. Dr C V Baxi, Former Director, MDI, Gurugram was honoured during the celebrations.

Women’s Cell Events

To celebrate the spirit of women empowerment, the University with the support of the District Legal Services Authority, Gurugram, celebrated the International Women’s Day on 8 March 2018. The theme of the event was ‘Up, we rise - A walk for gender equality’, which drew attention to the many ways that gender equality appears to be slipping, particularly in the areas of health, economics, representation and safety. Ms Pritam Rani Siwach, former Captain of the Indian women’s hockey team, was the Chief Guest and Mr Mohsen Baharvand, Deputy Secretary General, Asian-African Legal Consultative Organization was the Guest of Honour at the occasion. Ms Pritam Rani Siwach motivated the students by talking about her struggles to become a successful sportsperson. Mr Mohsen Baharvand explained the importance of the word ‘equality’ in gender related issues focusing on the international perspective. The most awaited part of the programme was the ‘nukkad natak’ which highlighted women centric issues and was choreographed by the students of SOL.

To sensitize the local community a march was organized from the University to the Sector 23 Market, Gurugram initiated by Ms Siwach. Students raised awareness about gender equality and women empowerment among the general public through slogans, banners and posters. Issues facing women in the Indian society were highlighted through a skit performed at the market place. Pamphlets developed on women empowerment by the National Commission for Women, New Delhi were distributed by the students to the general public. Safety measures were maintained during the walk by the Gurugram police and security staff of the University.
• **Awareness campaign on women’s safety and empowerment**

In the light of increasing crime against girls/women, an awareness campaign on women safety and empowerment was conducted at the University on 26 April 2018. The purpose of this campaign was to make everyone think about the recent scenario of crimes against women and to make them responsible for their actions. An Oath to respect women and to stand for the cause of women’s safety and empowerment was taken by the students and members of the faculty and staff of the University on 26 April 2018 and on 1 May 2018.

**International Yoga Day**

NCU celebrated the fourth International Yoga Day on 19 June 2018 by organizing a special yoga session in which all students, faculty and staff of the University, learnt some basic yoga ‘asanas’. The main aim was to raise awareness and ignite a passion for fitness and yoga among the members as by practicing simple ‘asanas’ one can help dispel stress, tension, fear etc. The ‘asanas’ were performed under the guidance of Mr Madhav Goyal, certified by Ministry of AYUSH and a Level 2 Yoga Trainer.

**World Environment Day**

To encourage awareness and promote action for the protection of our environment, NCU celebrated the World Environment Day on 5 June 2018 with full enthusiasm and vigour. Members of the faculty and staff took a pledge to control at least one of their activities which was causing pollution and damage to the environment and nature and planted saplings to contribute towards a greener environment.

**Lecture on Mind-Body Harmonics**

Dr Diwakar Sukul, Chartered Psychologist, Founder and Director, KAMKUS Clinic, London delivered a lecture on ‘Mind-Body Harmonics’ to faculty and staff of the University on 7 July 2018. Dr Diwakar is an acknowledged expert on stress, anxiety, emotional health, personal development, and spiritual well-being, integrating Eastern/Vedic approaches.

In his lecture, Dr Sukul discussed about the four components of the mind according to Vedanta and also spoke about the inner soul and happiness, our ultimate goal. He enlightened the audience about the unconscious mind with real life examples and demonstrated various acupressure techniques and healing therapies for stress management and multi-dimensional healthcare.
A six day FDP from 1-7 June 2018 was organized by each Department/School of NCU:

The Dept of EECE organized the FDP on ‘Cutting Edge Competencies’ with the objective of making the faculty aware of newer technology areas for enhancing the teaching-learning process and self-development. The new scheme designed for the course curriculum includes subjects from new technology areas like Deep Learning, 5th Generation of Mobile Communication, Machine Learning, Software Defined Radio, Navigation using Indian Constellation (NavIC). The FDP included hands-on sessions and interdisciplinary talks by industry professionals and subject experts. Meditation sessions were conducted by the Brahma Kumaris in the Thought Lab and the Akhil Vishwa Gayatri Pariwar on yagyopathy.

The Dept of CSE&IT organized the FDP on ‘Machine Learning and Deep Learning’, sub-areas of Artificial Intelligence. The technical sessions were conducted by experts from IBM Research Lab and Brain Mentors Pvt Ltd, New Delhi. The FDP also included soft skill training, yagyopathy and meditation sessions in the ‘Thought Lab’.

Facilities for faculty and staff

In keeping with past practice, various statutory and non-statutory facilities continue to be provided:
• PF, Gratuity Benefits as per Act and University Rules
• Cashless Mediclaim to Self and Family (medical cover upto Rs 5.00 lakhs)
• Faculty Lunch Room & Tea Club facility
• Faculty Awards
• Mentor-Mentee Scheme for faculty
• Special Casual Leave; Sabbatical Leave, Vacation Leave
• Faculty encouraged to pursue PhD (25% faculty are pursuing PhD & 49% faculty are PhDs)
• Equal opportunity employer; current female ratio is 70%
• Ethics & Anti Plagiarism Policy in place
• Day Care crèche for children
• A structured induction programme for faculty
• Medical Care Centre

Faculty Development Programmes

To enhance our academic and intellectual environment and give opportunities to faculty members to update their pedagogical and research skills, a University level six day Faculty Development Programme (FDP) was conducted on different topics from 1-7 June 2018. Faculty from all the Schools/Departments participated in the FDP and gained from the insights of senior academicians and subject experts on topics such as context learning, salient features of the model curriculum of AICTE and NCU’s BTech programmes, skill development etc. Members discussed features of the Tinkering Lab, NavIC, Student Profile etc.

Medical

Health Check-up

• In line with the University’s commitment towards a ‘Disease free fraternity’ an informative session on Pain Management was delivered by Dr Sahay, Delhi Pain Management Centre, New Delhi, followed by a Bone Marrow Density Diagnostic Camp in Feb 2018. The camp created awareness about the availability of specialized non-surgical treatments for chronic pain. Around 50 members comprising of students, faculty and staff benefitted from the camp.
• To promote healthy eye vision, a free of cost camp was organized in a tie-up with Lenskart in March 2018. The camp was undertaken in the format of a campaign with expert intervention which included eyesight check-up and advice. More than 100 students and 75 faculty members and staff benefitted from the camp.
• To commemorate International Women’s Day, a free of cost camp was conducted by Vijaya Diagnostic Centre, Gurugram on 8 March 2018. The camp was undertaken in the format of a diagnostic campaign for Blood Sugar and Blood Pressure and to highlight their role in the prevention of several diseases and for maintaining a healthy lifestyle. Around 150 members of the NCU fraternity which included students, faculty, staff and guests benefitted from the camp.

Another free of cost Diagnostic Camp was organized in partnership with Vijaya Diagnostic Centre, Gurugram on 26 July 2018 to spread awareness about self-role in prevention of several diseases and maintaining a healthy lifestyle. Over 75 new students and a large number of members of the faculty, technical and administrative staff benefitted from this camp.

Blood Donation Camp

Keeping up with the message ‘Blood is meant to circulate, so pass it around’ the University organized a blood donation camp in association with the Rotary Blood Bank in November 2017. Volunteers of the Rotaract Club NCU and the National Service Scheme (NSS) NCU Chapter were active participants at the event as they not only donated blood themselves but they also encouraged fellow students to donate for the cause. The response was overwhelming as students, faculty-members and staff enthusiastically donated blood and by the end of the day 312 units of blood had been collected for donation. The University has been collaborating with the Rotary Blood Bank regularly and organizing such camps to inculcate the value of community service and looking beyond oneself.
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In keeping with past practice, various statutory and non-statutory facilities continue to be provided:

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The Dept of CSE&T organized the FDP on 'Machine Learning and Deep Learning'; sub-areas of Artificial Intelligence. The technical sessions were conducted by experts from IBM Research Lab and Brain Mentors Pvt Ltd, New Delhi. The FDP also included soft skill training, yagyopathy and meditation sessions in the ‘Thought Lab’.

The Department of CEE had the six day FDP on skill enhancement. It comprised of special lectures on various topics by industry experts and academicians, trainings, meditation and yagyopathy sessions, motivational movie and a webinar on 'Interview and Interpersonal Skills'.

The FDP in the Department of APS focused on the strategic plan of the Department for the year ahead. Faculty interacted with scientists such as Dr Sailesh Narayan Sharma, NPL, Delhi and Mr Yogesh Adhana, DRDO, Delhi. There were talks on 'Health and Happiness Program', 'Science of yagyopathy' and a meditation session by Brahma Kumaris on 'Our Thought Process'.

The Dept of ME conducted its FDP to attain in-depth understanding about pedagogy of teaching Engineering and enhancing the research capabilities of faculty members. They interacted with learned experts from the industry and academia and learnt to prepare quality research proposals for various ministries in the field of science and technology. The FDP also included sessions on meditation and yagyopathy.

FDP on 'Emerging Trends in Teaching and Learning' was organized by CLL from 1-7 June 2018. Eminent speakers delivered expert lectures such as Mr Rajeev Bansal, Sr Consultant TCS on 'Financial Literacy'; Ms Chanda Sindhwani, Corporate Trainer, on 'Team Building'; Mr Allan Anderson, Programme Manager, Chetanalaya, New Delhi on 'Educating Young Minds'. There were sessions on meditation and yagyopathy also.

The School of Management FDP consisted of sessions on Mentoring, Quality check for PhD, writing a brief case study, Instructional Design etc. Eminent academicians delivered expert lectures such as Dr Girish Tripathi, Dy Director General (Academic), NTPC School of Business, on 'Application of Regression Analysis in Research'; Prof. J Mitra, Former Dean FMS, University of Delhi on 'Case development and case teaching'. A Board of Studies (BOS) meeting was held on 5 June 2018.

The Centre for Post Graduate Legal Studies (CPGL) organized the FDP in the School of Law to inculcate the spirit of capacity and team building, social emotional assessment and community perspective, social inclusivity, dependability as well as refining the thought process etc. so that all these methods can be utilized as a step towards enhancing the future of students in a better way. Subject experts delivered lectures such as Prof. GS Bajpai, Registrar, NLU, Delhi, on 'Drafting of Legal research proposals and Insight of appropriate funding agencies'; Ms Lata Singh Dasila, ICF Certified Life Coach, on 'Social Emotional Assessment vis-à-vis Community Perspective' and Mr Anurag Arya, Superintendent of Police, Kanpur East, on 'Maintenance of Law and Order situations: Case analysis of ground realities'.

Induction Programme for new faculty members

A Faculty Orientation Programme to interact with all new joinees on one common platform was organized on 18 Aug 2018. The programme acquainted the 18 new faculty members with key aspects of various processes and their functioning in different domains at the University.
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The Dept of CEE had the six day FDP on skill enhancement. It comprised of special lectures on various topics by industry experts such as Mr Rajeev Bansal, Sr Consultant TCS on ‘Financial Literacy’; Ms Chanda Sindhwani, Corporate Trainer, on ‘Team building, social emotional assessment and community perspective, social inclusivity, dependability as well as refining the thought and case teaching’. A Board of Studies (BOS) meeting was held on 5 June 2018.

The Department of CSE&IT organized the FDP on ‘Machine Learning and Deep Learning’, sub-areas of Artificial Intelligence. The technical training, yagyopathy and meditation sessions in the ‘Thought Lab’.

The Dept of ME conducted its FDP to attain in-depth understanding about pedagogy of teaching Engineering and enhancing the research capabilities of faculty members. They interacted with learned experts from the industry and academia and learnt to prepare case studies for teaching. The Dept of EEE conducted a three-day FDP on ‘Emerging Trends in Teaching and Learning’ from 11-15 June 2018. Eminent speakers delivered expert lectures such as Prof. Anatole Boute, a Belgian national from the Chinese University of Hong Kong, delivered a talk on the topic ‘Clean Energy Law and the International Economic Regime’ on 10 April 2018.

Prof. Michael Hegarty, Lecturer in Digital Forensics and Information Technology, ITB, Ireland, delivered a lecture on ‘Cyber Security’ to students of BTech 2nd and 3rd Year, Mtech 1st and 2nd year and faculty members of the Dept of CSE&IT on 23 Feb 2018.

Dr C S Yadav, Professor in Finance, Dept of Business and Director of International Academic Exchange, University of Tecnologico de Monterrey conducted an interactive session with students of the Dept of CSE&IT on 1 Feb 2018.

Mr Thainswemong Choudhury, Structural Engineer & Doctoral Fellow (Erasmus Mundus Heritage), jointly at PolitecnicoDi Milano, Italy and IIT Guwahati, delivered a lecture on ‘Structural Numerical Modelling’ to CEE students on 9 Feb 2018.

Dr Ramesh Anand Vaidya, former Nepal’s Planning Commissioner for Water Resources and later Nepal’s Ambassador to Japan, accredited concurrently to Australia, delivered an expert lecture on the ‘Hydro-meteorological Extremes and Climate Adaptation in the Ganges Basin’ on 26 Oct 2017.
Students' Achievements and Activities

Professional Societies
CSI Student Branch

NCU CSI Student Branch adjudged the Best Student Branch in the country

NCU's Computer Society of India (CSI) Student Branch was declared the 'Best Accredited Student Branch' in the country by CSI. Dr Kavita Khanna, Head, Dept of CSE received the award at the CSI Annual Convention 2017, held in Kolkata on 21 Jan 2018 on behalf of the CSI Student Branch.

A 2D Game Development workshop was organized by the CSI Student Branch from 11-13 Dec 2017. The winners of the event were Munish Grover and Nikhil Tanaja at 1st Position, Ayush Bhardwaj and Aniesh Gupta at 2nd Position, Abhinav Bhatia and Manas at 3rd Position. CSI Student Branch organized a gaming event for the Professional Society Fest held on 12 Jan 2018. CSE students showcased games they had developed during the workshops conducted by the CSI Student Branch.

NCU students participated in the CSI Regional Student Convention (RSC-2018) in Gurugram, from 23-24 Feb 2018 in which Fatma Laiba secured 3rd position in event ‘Code-a-Thon’ and Aaditya Verma bagged 3rd position in ‘Monster Gaming’. Tanya Joon, CSE, attended the Developer Student Club Summit in Goa from 22-25 Feb 2018 and got the opportunity to interact with eminent leaders from Google and the industry. Annekth Vig and Abhishek Jain were selected in the first round of CSI InApp National competition in March 2018. Over 750 teams from 22 different states participated in the competition out of which 74 teams were short listed. Competitive programming in Advanced Java was organized by CSI Student Branch on 11 April 2018. About 200 students took part in the competition which was held on the HackerRank platform. 1st Position was secured by Mayank Sharma, 2nd Position by Manas Chopra and 3rd Position by Kushal Kumar Jawa.

An interactive session on the technical know-hows of GitHub was organized by CSI Club’s Akarshan Gandora and Harsh Lathwal, BTech, Final-year students on 12 Oct 2017. They spoke about their projects on GitHub and also introduced the professional implementation of Git in development of projects in the industry.

ASQ-NCU Student Chapter

ASQ-NCU Student Chapter organized a Quality Conclave on the theme ‘Leadership for Quality’ at the University on 23 Feb 2018. The keynote addresses were delivered by Prof. Prem Vrat and Dr S Guruprasad, Director General (PC & SI), DRDO. It was followed by a panel discussion on the theme which was moderated by Mr Ciby James, Dir ASQ South Asia, 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.

Students Shringa Vatas, Dept of CSE and Anushree Mishra, Dept of CEE, attended the 7th Annual Conference of ASQ on the theme 'Glocal Challenges: Excellence through Quality & Innovation' (GLocal-Global Challenges and Local Issues) held from 18-19 Nov 2017 at Ahmedabad. Shringa Vatas, attended ASQ's 2nd South Asia Conference on Quality and Improvement on the theme 'Developing Winning Cultures' held at New Delhi from 1-2 Dec 2017. ASQ-NCU Chapter Chair and Student Deputy, NextGen, Shringa A Vatas, 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.

ASQ-NCU organised a service-industry trip to the Max Hospital, Saket, Delhi, on 20 Nov 2017. Details of how Six-Sigma is practiced, how data is collected for service problems and how tools are used in projects were shared with the students.
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, on 26 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 which provided him an amazing opportunity of getting such an exposure at an early stage.

‘Ad Lucem’ (Towards the light) the hunt which brought lovers of mystery and sciences together, was organized on 24 Oct 2017 at the University. The team to reach the light at the end of the tunnel was Team No 2, comprising of Divyam Sachdeva, Garry Mital and Dinesh Yadav. Outreach programmes were organized at ‘NGO Rashtrahit Sewa Sanghatan’ school in Gurugram on 23 Dec 2017 and 1 Sept 2018. Students of classes 4-8 were shown various experiments and explained the mechanism on which the experiments worked and their relevance.

OSA Student Chapter conducted a quiz on science and general awareness on 6 March 2018. In the final round the winning team comprised of Shauarya Dahiya and Shobhit, CSE 2nd Sem and the Runners-up were Dushyant Luthra and Eshita Mann, CSE 2nd Sem. OSA Student Chapter welcomed its new members with an orientation programme on 29 Aug 2018 to create awareness about offerings.

Tanyam and Jitendra Verma, ISHRAE NCU Student Chapter won the 1st Runners-up trophy in the quarter-finals of aQUEST HVAC QUIZ- 2018 (The Ultimate Engineering face-off) organized by the Dept of Mechanical Engineering, FET, MRIIRS on 19 Jan 2018 in association with ISHRAE (Indian Society of Heating, Refrigeration & Air-conditioning Engineers) for BTech students, sponsored by Hitachi. In the semi-finals at MMCOE, Pune they grabbed the 4th Runner-up position on 23 Jan 2018.

ISHRAE Society organized an industrial trip for ME students to the world-class manufacturing plant of Daikin Airconditioning India Pvt Ltd, Neemrana, Alwar on 22 Feb 2018. A technical lecture was organized on 24 Sept 2018 for the students of ME particularly those enrolled for the course on Refrigeration & Air-conditioning by industry expert Mr Kapil Chand Singhal, BR Refcool, Gurugram.

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 on 28 April 2018 at Maharaja Agrasen Institute of Technology, New Delhi.

A lecture by Alumna Ms Pooja Mohanani (Class of 2001), Consultant, NextExitFuture GmbH, Heidelberg, Germany, on ‘Human Imagination leading to technological innovation (5G)’ was organized for BTech 3rd Year students on 27 March 2018. Alumnus Mr Himanshu Mann, ECE (Class of 2011), Consultant, PcW, Australia, delivered a lecture on ‘Digital marketing and Data Analytics’ to BTech 2nd and 3rd Year ECE students on 10 April 2018.

IEEE Society in association with Advanced Technologies, Chandigarh, organized a workshop on ‘Wireless Sensor Networks’ from 16-17 April 2018. IEEE Delhi Section conducted a workshop on ‘Patent Publishing in India - A Paradigm-shift for Innovation in Academics’ at IIT Delhi on 20 Aug 2018. 13 members of the IEEE-NCU Chapter actively participated in the event and learnt about patenting and its importance. Students were inspired to write more research papers for IEEE-NCU Chapter and received Certificates of Participation.
IRSC-NCU Student Chapter

In collaboration with Save Life Foundation the IRSC-NCU Student Chapter organized the First Responder Certified Training Workshop for BTech students on 23 Feb 2018. It consisted of practical activities as well as theoretical knowledge. Two students from Dept of CSE got an opportunity to present their ideas in the Finale of the Road Safety Hackathon conducted by IRSC and Live Media at IIT, Delhi, on 22 April 2018.

Mathemactive Society

The Mathemactive Society organized ‘Mathemania’ quiz competition on 12 Feb 2018. The quiz tested the logical ability, accuracy and speed of students apart from basic maths concepts. Around 40 students of BTech (all branches), MSc Maths, BSc Maths (H), BSc Physics participated in the quiz. The winners of the event were BTech students: 1st-Mahima Munjal, 2nd-Ayush Bharghawaj and 3rd-Anuraj Arya.

‘ABSCISSA’, a mathematical quiz competition was organized by the Mathemactive Society for BTech, BSc Maths (H) and MSc Maths students on 9 April 2018. 1st Position was bagged by Shreya and Sakshi, 2nd Position by Udbhav and Tushar and 3rd Position by Sudhanshu and Tanish. A multi-round aptitude-cum-math quiz competition named ‘THE MATHSTER’ was organized for 1st Year students on 28 Aug 2018. The winners were - 1st Position: Piyush (BTech), 2nd Position: Raksha (BCom), 3rd Position: Balram, MSc (Maths).

SPIE Society

SPIE Society organized an industrial visit to Napino Automobiles and Electronics Ltd, IMT, Manesar, for BTech ECE students on 26 Feb 2018; a Career Counselling and Awareness Seminar at Vidyakot Sr Sec School, Alipur, Gurugram, on 9 April 2018 and a group discussion on ‘Educational qualifications for politicians’ and ‘Our culture is decaying’ for BTech 1st Year ECE students on 25 July 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 on 12 July 2018 at Mumbai.

ACM Student Chapter

A team comprising of Devansh Bhatia, Rohit Malhotra, 4th Year, and Navkrishna, 3rd Year, Dept of CSE&IT, competed in two Asia Level Regionals of Association for Computing Machinery-International Collegiate Programming Contests (ACM ICPC) 2017-2018. In the ‘Asia Gwalior Regionals’ (held at ABV- IIITM, Gwalior, from 20-21 Dec 2017) NCU team won the 59th Rank and in the ‘Asia Kolkata-Kanpur Regionals’ (held at UIET, CSJM University, Kanpur, from 23-24 Dec 2017) they won the 26th Rank.

ACM Student Chapter and Google Program Manager, Mr Himanshu Batra jointly organized a workshop on Machine Learning and Artificial Intelligence (AI) for 1st, 2nd and 3rd Year, CSE students on 2 April 2018 at NCU in which 150 students actively participated.

Competitive Programmers Club

Competitive Programmers Club organized ‘Code Flux 2.0’ in Oct 2017. It was part of a series of short contests held online and received a positive response with over 103 registrations. Problem setters and testers were Alumni Navkrishna, Rohit Malhotra, Devansh Bhatia (Class of 2014) and Pulkit Kapoor (Class of 2012). The winners were - 1st – Aadish Goel, 2nd – Prateek Kalra, 3rd – Vinay Garg.

Institution of Engineers (India) – IEI Society

Student Chapters of the Institution of Engineers (India)-IEI Society have been established in the Departments of EECE, CSE&IT, CEE and ME in the School of Engineering & Technology (SOET) in June 2018. A total of 121 students are currently part of these chapters across all four branches of Engineering.
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 intra/inter-university, regional, national, and international levels. The motto of the Quizzing Society is ‘semper discens’, Always Learning. 'Minerva' organized its first event 'Meet the Quizzards' on 12 Sept 2018. After three rounds of quizzing the winners were CSE students: 1st - Rajan Sharma, 2nd - Geetanjali Sachdev and Rishabh and 3rd was a tie between Ritika Kalra, Prema Kathuria and Ayush Bhardwaj, Ashish Gandhi.

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. The winner of the competition was Gul Pulyani, BBA, 2nd Sem. ‘AD-MAD Show’, an advertisement making competition was organized on 8 Feb 2018. The winning team comprised of Ujjawal, Stephen, Rohan and Sagar and the Runners-up team comprised of Aarushi, Anushka, Aditya and Aditi, BBA 4th Sem.

A ‘Creativity Festival’ was organized wherein students were able to showcase their creativity through competitions in April 2018. The winners were ‘Face Painting’ - Purna Rustagi and Dheeraj; ‘Collage Making’ - Yukti and Shubhangi (BBA); ‘Poster Making’ - Yashika Gupta and Priyanka Sharma (BBA).

Social Club of School of Management

Five students of BBA did community work from 25 June to 25 July 2018 at Sheetla Colony, Gurugram. They prepared the curriculum, helped them learn alphabets, numbers, body parts elementary English, Hindi, hygiene, etiquette, and got them involved in extracurricular activities. They were also part of the fund raising campaign called ‘Red card for child labor’.

NCU-Rotaract Club

AIDS Healthcare Foundation (AHF), supported by NCU Rotaract Club celebrated the International Condom Day at New Delhi in Feb 2018. HIV testing booths were set up and a series of flash mobs and rock band performances were organized to raise awareness about the theme in which 50 student volunteers of the Club participated.

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. He wrote on ‘Stigma related to AIDS. The Club was recognized 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. Rtr Shreya Gupta, President of the Club, received the award on behalf of the Club in July 2018. The Club in association with CanSupport, an organization caring for people with Cancer, organized Corpo Jumble (a high energy inter-corporate running challenge) at the International Tech Park, Gurugram, in Aug 2018. It offered students an opportunity to interact and socialize with leading corporates. 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.

A team of Rotaractors visited a slum at Sector 12, Gurugram, in Oct 2017 and created awareness about topics related to health education, personal and environmental hygiene, prevention of mosquito borne diseases and the issue of child labour. To bring happiness and light into the lives of the under-privileged a group of Rotaractors celebrated their Diwali in a different way. They distributed special Diwali gift hampers to families living at various construction sites, including two clusters staying near NCU in Oct 2017. The Club organized an Organ Donation Camp in Oct 2017 to spread awareness about the importance of donating organs after death and saving lives. The event had a positive impact on the students and 60 students signed the pledge for donating their organs. Five Rotaractors participated in a two-day exchange programme ‘IDYE-2017’ at Pune District-3131 in Oct 2017.
**SPIC MACAY NCU Club**

As a part of SPIC MACAY Virasat, the SPIC MACAY Chapter of NCU organized a classical Vocal Music Performance in Oct 2017 by Ms Sudha Raghuraman, a Carnatic classical vocalist and a music composer. She mesmerized the audience with her distinct style of Carnatic music and Tarana, apart from a few bhajans.

In Feb 2018, the Club invited Haji Mohd Idris and Mohd Ilyas, popularly known as the Qutbi Brothers, one of the most significant Qawwali artists in contemporary Indian music. They were also Astana singers at the Durbar of Hazarat Qutbuddin Bakhtiar Kaki, from where they were awarded the title of ‘Qutbi Brothers’. 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 on 19 June 2018 by organizing a special yoga session in which all students, faculty and staff 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 Delhi Technological University (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 and an interview with the famous RJ Heena on AIR, in April 2018. The video of the one minute performance at the Studio was trending on social media platforms.

**Club Fiesta 2018**

The University celebrated ‘Club Fiesta’ on 16 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 from 12-16 Feb 2018. The Fiesta Day started with a street play on ‘LGBT Rights’ performed by the Abhimanch Society. The excitement was further carried forward by a spectacular salsa dance performance and scintillating performances by the University’s music society ‘Encore’. In the event ‘Open Mic’ participants expressed themselves through their talent which was followed by dance and song presentations as well as a Fashion Show.

**Club and Society Fest**

The Club and Society Fest was organized especially for 1st Year students on 10 Aug 2018. Registration counters were set up by all the Professional Societies and Clubs at NCU. 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. The fest was a success as it disseminated detailed information about societies and clubs and motivated students to be a part of them as per their interest and choice.
NCU students studying at ITB, Dublin, Ireland

Students 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 Sharma, EECE is studying Bachelor of Engineering (Honours) in Computer Engineering in Mobile Systems (BN423) and Jitesh Miglani 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.

NCU students participate in UN Climate Change COP 23 Event

Urvika Gola, BTech, CSE (Class of 2018) and Pranav Jain, BTech, CSE (Class of 2017) participated in the UN Climate Change COP 23 Event at Bonn, Germany, under the official name of Hack4Climate from 12-16 Nov 2017. They were selected to develop innovative solutions which would help counter Climate Change and make our Earth a better place for living. Only 100 delegates from around the world were selected for this prestigious event. It was a great platform to collaborate with environmentalists and developers to create solutions using Distributed Ledger Technology - Blockchain to help combat climate change and interact with delegates from various institutions and organizations like United Nations and MIT.

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 2018 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. The programme was also designed to sensitize the students towards their academic interest and activities, besides inculcating in them the ethos of our University with a larger sense of purpose.

Freshers Day Celebrations

The University organized a welcome party for the new batch of students on 11 Sept 2018 so that freshers 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. It was a happening experience for the newly inducted students.
Students participate in panel discussion on News Channel

A team of six students from the University comprising of Anhubhuti, Rishabh Singhal, Sahil Bansal, Shubhashree, BTech; Kshitiz, Anurag, BBA-LLB (H) and Ms Jyotika Pruthi, Assistant Professor, Dept of CSE&IT, were invited by Mh1 News Channel for a Panel Discussion on ‘How social media has impacted students these days’ on the occasion of Children’s Day on 14 Nov 2017. The one hour discussion was a dedicated show for The NorthCap University and was a live telecast.

Shrey Malhotra, BTech (ECE), after getting 3rd position under the early stage startup category in the ISIF (Indian International Science Fair) held at Chennai from 13-16 Oct 2017, represented India and his startup in the Global Innovator Festa (GIF) at Daegu, South Korea, from 3-4 Nov 2017. He got a position in top 15 teams after various rounds of the competition. The participants were mostly of age ranging from 25-40, making Shrey the youngest entrepreneur to take part in the competition.

Ms Tanya Joon, 3rd Year, BTech CSE was selected for Google’s Grace Hopper Conference, India’s largest gathering of women technologists, held from 16-17 Nov 2017 in Bengaluru, funded by Google.

PhD scholar Ms Renu, Dept of APS, won the 2nd Prize in the Poster Presentation in a workshop organised by ‘Sri Venkateshwara College (DBT Star College), University of Delhi held from 8-9 Aug 2018.

Team Alacrity, Dept of ME participated in a go-kart design and manufacturing championship under the organisation ISIE (Imperial Society of Innovative Engineers), from 17-21 Jan 2018. They stood 1st in the theoretical test. The final event took place at the International Buddh Circuit, GNoida. A total of 32 teams participated in the final event from all over the country out of which 18 passed the Technical Inspection test including Team Alacrity. Team Alacrity ranked 1st in North Zone, in the pre virtual round and 8th rank Pan-India in the Hybrid Vehicle Championship held from 26-29 July 2018. The four day event was a great success and helped to bring out the true potential of our students.

Divyam Sachdeva, Tanish Tyagi and Neelam, ECE 1st Year students, participated in a Tech competition held at DTU on 12 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. Student Shaurya, BTech, 3rd Year CSE was selected in April 2018 as a part of the Microsoft Core Organizing team for a national level competition, Imagine Cup 2018.

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 member Ms Jyotika Pruthi recited poems in Hindi. Pro Chancellor, Prof Prem Vrat spoke in Hindi about understanding the essentials of our Indian culture and the importance of imbibing the values of our ancient Indian culture.
Momentum 2017

The University celebrated its annual techno-cultural fest ‘Momentum 2017’ from 1-3 Nov 2017, which saw a plethora of cultural events providing students a platform to showcase their talent. The audience was treated to music and songs presented by NCU’s Music Society ‘Encore’ and the Battle of Bands which gave a great start to the fest. There were group dances, inter-college fashion shows, DJ sessions and society events like gaming, coding, bridge making competitions etc. There was keen competition to win the coveted titles of the Fest. Students from DU, IP College, Manav Rachna, Amity Manesar etc. also contested various inter-university sports events like street football, hit the wicket, basketball and archery (for the first time).

University bids Farewell to its final year students

The University organized a farewell ceremony for the Final-year students of Engineering, Management and Law on 3 May 2018. The adieu was full of excitement on entering into a new, matured and professional world, but was also mixed with the pain of departing from their batchmates. The event witnessed dance and song performances by the host students which added excitement and activity to the evening. Dressed to the nines, the students were all in high spirits as they clicked away, capturing moments of joy, laughter and smiles to make the best of the last day as students at the University. The outgoing students were given interesting titles by the pre-final year students as they were called on stage and given mementos.

Mitsubishi Electric Cup 2018-Team Adroit

Mitsubishi Electric India Pvt Ltd organized the Mitsubishi Electric Cup-2018, the national level competition for factory automation skills for engineering students, in association with the Institute of Technology, Nirma University, Ahmedabad from 15–17 Feb 2018. NCU’s multidisciplinary team ‘Adroit’ comprising of Smridhi Seth, Prithu Jain, Abhijeet Kumar, Dept of EECE and Mayank Juneja, Dept of ME participated in the Mitsubishi Electric Cup 2018 competition. Team Adroit developed a Smart Drainage Management System, 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.
Vibings| Hashtag

Vibings Creative Solutions Club presented their most popular student magazine ‘Hashtag’ on 3 Aug 2018 during the Induction Programme for 1st Year students. During the launch event of ‘Hashtag’ Issue No. 3. (based on the theme 'Something Different') a live performance by the students of The Asian Academy of Film and Television and an interactive session on ‘Unorthodox Career Choices’ by Mr Vikram Vijay Chandan, Associate Vice-President, Sony Pictures, was organized on 27 Aug 2018.

NCU stands with Kerala

In one of the most destructive deluges that Kerala has seen in a century, the faculty, staff and students of The NorthCap University, got together in this hour of National calamity and donated generously for the flood victims. A sum of Rupees Three lakhs, fourteen thousand eight hundred was collected by way of voluntary donation and sent to the Chief Minister’s Distress Relief Fund, online, on 4 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 from 11 am to 12 noon on 16 Feb 2018. Special arrangements were made by the University so that a maximum number of students were able to join the Prime Minister’s session ‘Pariksha Par Charcha’. A large number of students benefitted from the Prime Minister’s advice.

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 in Aug 2018.

Edu-Recreation Club

The club ‘Trekkers of NCU’ organized a breathtaking trekking expedition to the magical valley of Thachi, Mandi, HP, at a height of 3000 mtr. A team of 15 members comprising of enthusiastic students, faculty and alumni were part of this trek from 28 Sept to 2 Oct 2017. NCU Recreation Club organized a trip to Goa for students from all the Schools of the University from 12-18 Dec 2017. They visited historical places, had fun in the sea and on the beautiful beaches. NCU Recreation Club organized its 5th trip to Manali for the students of the University from 9-13 March 2018. A total of 21 students from across the different Schools joined this excursion along with faculty and staff coordinators. It was full of learning, fun and adventure. 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.
Social Service

Yukti

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’, Gurugram, under Suvidha and Khushi Cell, on 24 Jan 2018. Efforts were to provide some support and spread cheer among the mentally and physically challenged women residents of the old age home.

National Service Scheme

An Orientation-cum-Felicitations ceremony was organized by NSS at NCU in Aug 2018. 1st Year students were informed about the importance of NSS and its activities. To provide relief to those affected by the floods in Kerala, 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, on 4 Sept 2018.

SPORTS

NCU Law Student makes a mark at International Sporting Event

Student Ansh Gupta, 8th Sem, SOL, played for the Kerala Cobras in the Premier Futsal League Season 2 and played with international football legends. He was one of the 18 Indian players to be selected from all over India through a series of intense training camps. The tournament was held from 15 Oct to 1 Nov 2017 and organized in Mumbai, Bengaluru and Dubai. The tournament was broadcast live on SonyTen1, SonyTen3 and Sony HD. Ansh Gupta won the trophy for the ‘Best Player’ of 11th ONGC North-East Tamchon Football Tournament in January 2018. This is one of the biggest football tournaments of the North-East and was broadcast live on DD Sports.

NCU student awarded ‘Man of the Match’ trophy in ‘IJPL Talent Hunt’ at Dubai

Abhinav Tyagi, 1st Year, Dept of CEE, participated in the nationwide Indian Junior Player’s League (IJPL) Talent Hunt cricket tournament held in Dubai, UAE, from 14-30 Sept 2017. There were 16 teams competing in the tournament and he got an opportunity to play for the Haryana State as part of the ‘Haryana Hurricanes’. Abhinav qualified three league matches in the tournament and was awarded the ‘Man of the Match’ trophy in the third league game against the Delhi team.

NCU student wins Gold Medal

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 from 4-7 Jan 2018.
Inter-College Table Tennis Tournament

Students Shubham Jain, Abhishek and Karan Joon participated in the Table Tennis Tournaments in the annual sports fest ‘Udgosh’ at IIT Kanpur 2017 held from 12-15 Oct 2017. 22 teams competed in the Table Tennis Tournaments. In the semi-final match: NCU vs IIT Roorkee, NCU team won 3-2 and in the Final Match: NCU vs IIT Bombay, NCU team won 3-0. The Table Tennis team participated in the Table Tennis Tournaments organized by the Department of Sports, Directorate of Sports & Physical Education, at the University of Jammu from 11-15 Jan 2018 in which 60 universities participated.

NCU students win laurels at Sportopia’18

A team of NCU students comprising of Gavish Malhotra, Rohit Jakhar, Yogansh Kwatra, Kamal Goyal, Rahul Singh, Yash Chitnis, Arnesh Rana, Dev Lohia, Anshul Khokher, Pramod Malik, Sahil Goyal, Tanmay Gogia, Rajat Hariom, Abhinav Tyagi, Hariom Sadana and Sagar Janghu participated in the Sports Fest Sportopia’18 at Gurugram held from 7-9 March 2018. A total of 16 teams participated in this Fest. The NCU team was declared the Winner of the tournament by beating Amity University, Manesar, by 6 wickets in the 1st match, Ansal University by 8 wickets in the quarter-finals, Dronacharya College by 30 runs in the semi-finals and KR Mangalam University by 40 runs in the Finals.

Ujjwal Mr India 2018 Body Building Championship

Arun Kumar, 3rd Year CEE, bagged the 4th position in the Ujjjawal Mr India 2018 Body Building & Fitness Championship held at Delhi Vidyapeeth School, Sonipat, Haryana, on 1 July 2018.
To promote excellence in academics and to recognize outperformers, scoring a CGPA of 9.5 and above, The NorthCap University distributed cash awards to its undergraduate and postgraduate students for Semester Results-December 2017 in Engineering, Management and Law on 28 April 2018. The outperformers form the select Dean's List of students. 64 meritorious students from different disciplines were given cash awards including 37 students from BTech, 1 from BSc Maths (Hons), 1 from BSc Eco (H), 5 from BCom (Hons), 5 from BBA, 8 from BBA-LLB (Hons), 1 from LLM, 5 from MTech and 1 from MBA. The Pro-Chancellor, Prof. Prem Vrat and Vice-Chancellor, Prof. HB Raghavendra presented these Merit Certificates and cash awards.

The NorthCap University believes that if students are committed, nothing should constrain them from realizing their dreams. In keeping with this belief the University awards 'Merit and Means' scholarships, during the year, to pursue undergraduate and postgraduate education at the University. During the reporting year the University is awarding scholarships on 'Merit and Means' basis to 208 students amounting to over Rs 1.47 crores, a major achievement for a private university.

Fee Concessions & Scholarships Awarded by NCU-Year Wise

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of students</th>
<th>Amount in Crores</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2007</td>
<td>47 / 0.19 Cr</td>
<td></td>
</tr>
<tr>
<td>2007-2008</td>
<td>80 / 0.92 Cr</td>
<td></td>
</tr>
<tr>
<td>2008-2009</td>
<td>127 / 1.02 Cr</td>
<td></td>
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<tr>
<td>2009-2010</td>
<td>149 / 0.94 Cr</td>
<td></td>
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<tr>
<td>2010-2011</td>
<td>168 / 1.08 Cr</td>
<td></td>
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<tr>
<td>2011-2012</td>
<td>199 / 1.32 Cr</td>
<td></td>
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<tr>
<td>2012-2013</td>
<td>217 / 1.61 Cr</td>
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<tr>
<td>2013-2014</td>
<td>222 / 1.76 Cr</td>
<td></td>
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<tr>
<td>2014-2015</td>
<td>266 / 1.41 Cr</td>
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<tr>
<td>2015-2016</td>
<td>387 / 1.58 Cr</td>
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<tr>
<td>2016-17</td>
<td>208 / 1.47 Cr</td>
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<td>2017-18</td>
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<td>2018-19</td>
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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.

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISRO</td>
<td>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.</td>
</tr>
<tr>
<td>MAGES Institute of Excellence</td>
<td>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 &amp; ECE. This agreement is committed to raising standards in education and preparing the next generation of students for jobs of the future.</td>
</tr>
<tr>
<td>Michigan Technological University</td>
<td>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 &amp; Engineering.</td>
</tr>
<tr>
<td>University of Regina</td>
<td>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.</td>
</tr>
<tr>
<td>University of Chester</td>
<td>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.</td>
</tr>
<tr>
<td>ITB Ireland</td>
<td>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.</td>
</tr>
<tr>
<td>IBM</td>
<td>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.</td>
</tr>
</tbody>
</table>
| **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.  

| **National Assessment and Accreditation Council (NAAC):** The University has been accredited by NAAC for a period of five years from 25th May 2016.
**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.

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.

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

Central Research Facility
A Central Research Facility (CRF) has been established at The NorthCap University with the objective of providing 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.
Information Technology

IT Vision

- Identify a long term, sustainable and accessible solution that addresses increasing demands for storage and the integration and interoperability of our ICT systems.
- Address user demand for sophisticated, high quality, ubiquitous and reliable ICT provision whilst recognizing economic constraints.
- Create additional efficiencies, whilst improving service quality through core ICT provision.
- Enable capacity to meet increasing network bandwidth demands and reduce single points of failure that would threaten the availability of network connectivity.
- Improve information security provision i.e. the confidentiality, reliability and availability of ICT systems.

<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.
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. The NorthCap University has a 150 MBPS dedicated leased line, digital and multimedia library, networked computer labs and Wi-Fi hostels. There is a central computing facility in the University along with computers in the main library bringing the total number of computers available on campus to 959. All classrooms are equipped with LCD projectors, with a common UPS to ensure undisturbed presentations.

Committed to the automation of various academic, financial and administrative processes, the University is at an advanced stage of completion of Enterprise Resource Planning (ERP) implementation based on cloud computing, in a tie-up with Digiuniv.

Virtual Labs
NCU is a nodal centre for Virtual Labs, an initiative of the Ministry of Human Resource Development under the National Mission on Education through Information and Communications Technology, wherein eight IITs are currently involved. The aim of Virtual Labs is to provide remote access to labs in various disciplines of science and engineering, where the students can avail of and share costly equipment and resources for learning, including additional web resources, video lectures, animated demonstrations and self-evaluation through remote triggering.

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:

<table>
<thead>
<tr>
<th>Admission and Fee Module</th>
<th>Academic Module</th>
<th>Examination Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Collection and Verification</td>
<td>Semester Registration</td>
<td>Admit Card Generation</td>
</tr>
<tr>
<td>Fee Management System</td>
<td>Time Table Generation</td>
<td>Grading and Results</td>
</tr>
<tr>
<td>Student Records</td>
<td>Faculty Feedback</td>
<td>Related Reports</td>
</tr>
<tr>
<td>Class Management</td>
<td>Related Reports</td>
<td>Administrative Module</td>
</tr>
<tr>
<td>Related Reports</td>
<td>Attendance Module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Academic Module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Examination Module</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administrative Module</td>
<td></td>
</tr>
</tbody>
</table>

Academic Module
- Semester Registration
- Time Table Generation
- Faculty Feedback
- Related Reports

Attendance Module
- Bio-metric Attendance System
- Linking with ERP
- Related Reports

Examination Module
- Admit Card Generation
- Grading and Results
- Related Reports

Administrative Module
- HRMS
- Student Placement
Physical Infrastructure

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, 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. 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-storied 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 125 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 carry 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:

- **Use of renewable energy:** Based on green audit, installation of 150 KW rooftop solar PV system with net metering facility - possibly the first and only university to install it.
- **Energy Conservation:** LED lighting, false ceilings to reduce heat load, as well as abundant natural light help make the building energy efficient.
- **Water harvesting:** Rain water harvesting system with pipes going to 300 feet below ground level.
- **Sewage management:** 100 KLD sewage treatment plant to ensure zero discharge to municipal sewer line with plans to use treated water for horticulture. Garbage handed over to MCG for proper disposal. No hazardous waste produced on campus.
- **Efforts for Carbon neutrality:** Green footprint through 6 acres of green area out of 10 acre campus area.
- **Plantations:** Lush green gardens all around the campus. 17th consecutive year NCU a winner of HUDA garden competition in Gurugram.
- **Odd-even scheme for vehicles:** Ongoing scheme for reducing emissions thereby reducing air pollution.
- **E-waste management:** Disposal of E-waste is an emerging global environment and a public health issue. All loosely discarded E-waste is collected in the University and handed over to external vendors.

The Indian Meteorological Department, Ministry of Earth Sciences, GOI, has selected NCU for setting up an Automatic Weather Station (AWS). It will provide accurate and real time data of minimum and maximum temperatures, rain measurement, humidity, wind speed and direction, pressure, solar radiation etc. This will be beneficial to residents of Gurugram especially farmers as they will get to know about the weather conditions in advance. It will help students and faculty in research and developmental activities of atmospheric studies. AWS is expected to be installed in January 2019.
Library & 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’s 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, IIMB Management Review, Decision, Vision, Harvard Business Review, BCI Journal, etc. LIRC 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.

Salient facilities provided to 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 moblies.
- 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.
- 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.
- Notification through SMS/Email on every transaction is sent to the borrower.
- Library has WEBOPAC 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 students.
- The Library is subscribing to various e-resources to fulfill user’s information needs 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 facilitate students to prepare for their examinations, both internal/external, the Library timings have been extended to 10.00 pm on all teaching days.
- 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.
Details of facilities provided by LIRC are as under:

• **Online Renewal of Books:**
  LIRC provides the facility of online renewal of books to all its users. A borrower can reissue library books issued in their account from anywhere through the WEBOPAC facility. The link to use this facility on the library page is [http://opac.ncuindia.edu:8380/opac/search/search.html](http://opac.ncuindia.edu:8380/opac/search/search.html)

• **Reservation of Books:**
  This facility allows users to reserve books which are issued out and thus not available in the Library. Users fill the reservation form, available at the entrance of the Library, and submit it to the gatekeeper. Users can find out about the availability of the book the next day.

• **Back Volumes of Print Journals:**
  LIRC has enriched its collection by compiling volumes of print journals coming to the library. These volumes are available for reading and issue (only for overnight use).

• **Multimedia Section:**
  This section allows users to access the electronic resources subscribed to by LIRC. Twenty dual core machines with printer and scanner facility have been installed for users. Head phones for access to audio-video materials are provided.

• **Special Collections:**
  The LIRC has a special collection of theses gifted by Professor Prem Vrat, Pro-Chancellor of The NorthCap University. These theses are available for reading in the Library. The LIRC has also procured a complete set of ‘McGraw Hill Encyclopaedia of Science and Technology’ and many other important reference books for users.

• **DELNET (Developing Libraries Network):**
  In this information age, no library is completely sufficient to provide all the services to users on its own. Delnet is a national network of libraries established with a mission to support the member libraries and promote the culture of resource sharing. NCU LIRC is also a member of Delnet. Any user can request access to books and journal articles which are not available in the library through Delnet.

• **Tata Mc Graw Hill E-Books:**
  LIRC subscribes to the TMH e-books database. These books are related to the areas of engineering, management, applied sciences, computer science etc. This database has many advanced features like download of books, creating bookshelves within the database etc.

• **Online Resources:**
  LIRC subscribes to online electronic resources e.g. The American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), SAGE Journals, Ebsco Business Source Elite, Westlaw, MANUPATRA etc.

• **Notification on Every Transaction:**
  Library offers its students a User Alert Service. Users get notification through Email and SMS on every transaction.

• **Library Mobile App:**
  Users can access the library database anytime from anywhere on their phone with the help of LSearch mobile App by installing it from Google Play store.

### Discipline Details

<table>
<thead>
<tr>
<th>Discipline</th>
<th>No. of Books</th>
<th>National Printed</th>
<th>International Printed</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering &amp; Sciences</td>
<td>54390</td>
<td>67</td>
<td>31</td>
<td>ASME: 27, ASCE : 36</td>
</tr>
<tr>
<td>Management</td>
<td>5813</td>
<td>30</td>
<td>12</td>
<td>SAGE : 19, Ebsco Business Source Elite: 851</td>
</tr>
<tr>
<td>Law</td>
<td>4730</td>
<td>24</td>
<td>04</td>
<td>WestLaw: 1200+, MANUPATRA : 07</td>
</tr>
</tbody>
</table>

In Addition 28 E-Books are also available.
Details of facilities provided by LIRC are as under:

- **Online Renewal of Books:** LIRC provides the facility of online renewal of books to all its users. A borrower can reissue library books issued in their account from anywhere through the WEBOPAC facility. The link to use this facility on the library page is http://opac.ncuin.com:8380/opac/search/search.html

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- **Notification on Every Transaction:** Library offers its students a User Alert Service. Users get notification through Email and SMS on every transaction.

- **Library Mobile App:** Users can access the library database anytime from anywhere on their phone with the help of LSearch mobile App by installing it from Google Play store.
In keeping with the changing demands in education, NCU offers a redesigned curriculum that prepares students for the future workplace. The learning methodology integrates multidisciplinary and contemporary global pedagogy across Applied Sciences, Engineering & Technology, Law and Management along with skills and competencies such as critical thinking, problem solving and working in cross-functional teams that are essential constituents for modern day success. 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 NorthCap University’s, School of Engineering & Technology (SOET) with its five academic Departments of Applied Sciences (APS), Civil & Environmental Engineering (CEE), Computer Science Engineering (CSE), Electrical, Electronics, & Communication Engineering (EECE) & Mechanical Engineering (ME), forms the largest component of its academic arena. The School has recently revised its curriculum for a closer alliance with industries, and provide necessary skills to students to face the challenges of the real word. Each programme offered at SOET blends critical thinking and analysis with innovation, application and leadership qualities, theory and industrial practice, such that its graduates are ready to take on the rapid changes taking place in the field of industry and higher education both at the national and international level.

The strategic goals of the School are as under:

- 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.
- To maintain high quality diverse faculty and students in the University at all times.
- To cultivate strategic alliances with partner universities, major Industries, both at the national and international level.
- To promote research in order to facilitate students to fulfil their entrepreneurial dreams.

Partnership Agreements

The NorthCap University has strengthened its academic and industrial collaborations with various universities/ institutes/ organizations/ industries and made new collaborations with industries/ universities during the last one year details of which are given elsewhere in the Report.

As a part of the MoU with Ansyst Consulting Pvt Ltd currently CSE students are working on 24 different projects with industries like Universal Technical Systems, C-DAC, DNA Automation, Townsquare etc. As a part of the MoU with CADD Centre, ND, the Dept of CEE organized a Quiz competition in Feb 2018 in which a total of 50 students from 2nd and 3rd Year (CEE) participated. They were also given free training on soft skill development.

NCU a lifetime organizational member of the Indian Concrete Institute, Chennai

The NorthCap University is now a lifetime organizational member of the Indian Concrete Institute, Chennai and has been attached to the ICI Delhi Centre (DELC). The Department of Civil and Environmental Engineering is now getting updates on the latest technology and practices in the Concrete Industry. Faculty, research scholars and students are getting the opportunity to attend lectures and interact with experts from India and abroad and collaborate with national and international agencies to create better understanding of concrete construction technology.
Programmes
The new scheme of study (2018-19) 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 the students. Details are as follows:

MOOC Courses

<table>
<thead>
<tr>
<th>Department</th>
<th>Course Name</th>
<th>No. of students enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE</td>
<td>R-programming</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Programming for IoT based Devices</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Cloud Computing (Ph.D)</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Bioinformatics methods (Ph.D)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Operating System</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Android Programming</td>
<td>445</td>
</tr>
<tr>
<td></td>
<td>Python</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td>Introduction to HTML and Java Script</td>
<td>410</td>
</tr>
<tr>
<td></td>
<td>Digital Communication Systems</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Introduction to Internet of Things</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Machine Learning</td>
<td>19</td>
</tr>
<tr>
<td>ECE</td>
<td>Lasers</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Linear Programming and its Applications</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Number Theory</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Mathematical Modeling and Simulation</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Experimental Techniques in Material Science</td>
<td>1</td>
</tr>
<tr>
<td>APS</td>
<td>Bsc (H) Physics</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Bsc (H) Maths</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Msc Maths</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Pre-PhD</td>
<td>9</td>
</tr>
</tbody>
</table>

Mapping of Co-Curricular Activities with Courses has been introduced in the Dept of EECE. In the Jan-June 2018 semester 2 courses were linked with co-curricular activities

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course Name</th>
<th>Co-curriculum Activities Identified For Inclusion In Continuous Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Digital Signal Processing</td>
<td>SPIE /IEEE (Active participation)</td>
</tr>
<tr>
<td>2</td>
<td>Digital Electronics</td>
<td>Project through Maker’s space/IEEE</td>
</tr>
</tbody>
</table>

In current semester (July-Dec 2018) the following courses were linked with co-curricular activities with active participation from

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Course Name</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/IE 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/IE 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/IE society</td>
</tr>
</tbody>
</table>
In a tie up with IIT Madras for the 'QEEE Programme' 250 students from SOET attended the following QEEE courses.

<table>
<thead>
<tr>
<th>Department</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>APS</td>
<td>- Introduction to Data Sciences</td>
</tr>
<tr>
<td>CEE</td>
<td>- Limit State Design of Reinforced Concrete Beams - Design of Reinforced RCC Structures</td>
</tr>
<tr>
<td></td>
<td>- Limit State Design of Reinforced Concrete Columns - Design of Reinforced RCC Structures</td>
</tr>
<tr>
<td>CSE</td>
<td>- Process Management-Operating System</td>
</tr>
<tr>
<td></td>
<td>- Network Security</td>
</tr>
<tr>
<td>EECE</td>
<td>- Discrete Time Signals - Digital Signal Processing</td>
</tr>
<tr>
<td></td>
<td>- Digital Signaling for Fading Channels - Wireless Communication</td>
</tr>
<tr>
<td>ME</td>
<td>- Gas Power Cycle - Thermal Engineering - 1</td>
</tr>
<tr>
<td></td>
<td>- Fits and Tolerance - Computer Aided Machine Drawing</td>
</tr>
</tbody>
</table>

The **Spoken Tutorial** Project about teaching and learning a particular FOSS (Free and Open Source Software) like Linux, Scilab, LaTeX, JAVA, Python etc. via an easy video tool. 71 students of ECE 4th Sem enrolled for JAVA and 30 students of ECE 6th Sem enrolled for Python. The workshops of these subjects were conducted in the Dept of EECE in Dec 2017. 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.

**CISCO Networking Academy**

Students of CSE took part in the Cybersecurity Learn-A-Thon by CISCO Networking Academy held from 16 to 30 July 2018. This helped in preparing students for a successful and lucrative career in one of the hottest job markets. 31 students completed and passed the course on Cybersecurity 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.

**Special Skill Deployment courses for slow learners**

To open up more employment opportunities for slow learners, special skill development courses have been offered by various depts. Some examples are:

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.

ASQ conducted a two day 'Yellow-belt Six-sigma Certification Programme' for the first time at NCU from 5-6 October 2017. It was conducted by Mr Ciby James, Director ASQ South Asia. The Yellow Belt incorporated the White Belt skills, previously acquired by the students, along with team-working skills so as to develop them as quality professionals. Mr Ciby James conducted an extensive knowledge based session for the 162 outstanding students.

The School offers an enabling work environment and support infrastructure to innovate and carry out research on a regular basis. The School is proud of having a faculty team which is highly educated, dedicated and approachable by students, at all times. Renowned academicians/scholars/industrialists are associated with SOET as Mentors to members of the faculty.
Currently 90% of the faculty is either PhD or Pursuing PhD. During the reporting period the following faculty members have been awarded PhD degree:

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Faculty</th>
<th>Title of thesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Indra Debnath</td>
<td>Efficiency and duality on some vector optimal problems</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Sumit Malik</td>
<td>Study of heat Transfer and Entropy Generation in Nanofluid Filled Enclosure</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Mohammad Rahman</td>
<td>Analysis of Mathematical Models in Accelerated Life testing</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Rajni Rohila</td>
<td>Efficient Numerical Solution of some Linear and Nonlinear Diffusion Equations</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Tarul Garg</td>
<td>Rate of convergence of certain positive linear operators</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Aman Jatain</td>
<td>Software Engineering</td>
</tr>
<tr>
<td>7</td>
<td>Dr. Jyotsna Singh</td>
<td>Computational Modelling</td>
</tr>
<tr>
<td>8</td>
<td>Dr. Luxmi Verma</td>
<td>Data Mining</td>
</tr>
<tr>
<td>9</td>
<td>Dr. Sumanlata</td>
<td>Speech Signal</td>
</tr>
<tr>
<td>10</td>
<td>Dr. Geetika</td>
<td>Data Mining</td>
</tr>
<tr>
<td>11</td>
<td>Dr. Anirudh</td>
<td>Data Mining</td>
</tr>
<tr>
<td>12</td>
<td>Dr. Arpita Nagpal</td>
<td>Data Mining</td>
</tr>
<tr>
<td>13</td>
<td>Dr. Arjyjyoti Goswami</td>
<td>Development of Micro/Nano Structured Surfaces</td>
</tr>
<tr>
<td>14</td>
<td>Dr. Akansha Mathur</td>
<td>An Experimental &amp; numerical study of single compartment fiers</td>
</tr>
<tr>
<td>15</td>
<td>Dr. Satnam Singh</td>
<td>Development &amp; Characterization of Metal Ceramic Composite casting through Microwave Hybrid Heating</td>
</tr>
<tr>
<td>16</td>
<td>Dr. Manoj Kumar Gopaliya</td>
<td>CFD Modelling of Slurry Flows through Horizontal Pipelines</td>
</tr>
<tr>
<td>17</td>
<td>Dr. Vandana Khanna</td>
<td>Wireless Communication</td>
</tr>
<tr>
<td>18</td>
<td>Dr. Tanisha Manchanda</td>
<td>Hydrocarbon and lipid production by Botryococcus Braunii</td>
</tr>
<tr>
<td>19</td>
<td>Dr. Niragi Dave</td>
<td>Physical, Mechanical and Micro-Structural Behaviour of Quaternary Binders, Motors and Concrete</td>
</tr>
<tr>
<td>20</td>
<td>Dr. Anuradha</td>
<td>Hybrid decision tree classification for medical diagnosis</td>
</tr>
<tr>
<td>21</td>
<td>Dr. Chetna Tyagi</td>
<td>Study of structural, optical and electrical properties of polymer nanocomposites for numerous applications</td>
</tr>
<tr>
<td>22</td>
<td>Dr. Sumanlata Gautam</td>
<td>Development of Spectro-temporal features of Speech</td>
</tr>
<tr>
<td>23</td>
<td>Dr. Lalit Upadhayay</td>
<td>Strategies for improving quality of Engineering Education in India: A systems approach</td>
</tr>
<tr>
<td>24</td>
<td>Dr. Abhishek Pratap Singh</td>
<td>Computational analysis of pollutant dispersion mechanism in an urban street canyon</td>
</tr>
<tr>
<td>25</td>
<td>Dr. Pooja Sabherwal</td>
<td>Automatic delineation of qrs complex and t-wave in electrocardiogram using signal processing techniques</td>
</tr>
</tbody>
</table>

Faculty underwent various training programmes such as online courses, FDPs, faculty externships in industry and training by NITTTR etc. to upskill and remain contemporary.
A large no of faculty members received recognition working as member reviewers. They presented research papers in journals and conferences at national and international levels, details of which are given below and at the end of the Report:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Department</th>
<th>Total No. of Publications</th>
<th>Books/ Books Chapter</th>
<th>Journal</th>
<th>Conference Proceedings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Applied science</td>
<td>56</td>
<td>3</td>
<td>19</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>CSE Eng.</td>
<td>56</td>
<td>13</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>Mech Eng.</td>
<td>5</td>
<td>-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>ECE Eng.</td>
<td>64</td>
<td>5</td>
<td>29</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>Civil Eng.</td>
<td>11</td>
<td>-</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

Some outstanding student achievements are highlighted below:

- **GATE EXAMINATION 2018**

  Our 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 Student Himanshu Singla.

- **NSS NCU team participated in National level Social Summit held at IIT Roorkee from 2-4 Feb 2018 and won the 1st Position in the Case Study Competition on Child Nutrition (Team comprised of Tanya, Vaishali, Shankar and Gul), and won the 3rd Position in the Case Study Competition on Human Trafficking (Team comprised of Vedant, Tanya, Sagar and Pulkit).**

- **Shaurya, BTech, 3rd Year CSE, was selected as a part of the Microsoft Core Organizing team for a National level competition ‘Imagine Cup 2018’ that empowers the next generation of computer science students to team up and use their creativity, passion and knowledge of technology to create applications that shape how we live, work and play. Every year tens of thousands of students from across the globe compete in this competition.**

- **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.**

- **Shrey Malhotra (Class of 2020) took part in IISF (Indian International Science Festival) held at Chennai, where he stood 3rd under the early stage startup category.**
Research Orientation

VC Innovation Fund

The University continued to encourage innovative ideas of students. Following are the details of the projects and award amounts:

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 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>1</td>
<td>Virtual Reality integrated robotic car</td>
<td></td>
<td>Dr. Jyotsana Singh Ms Suman Bhatia</td>
<td>Rs 50,000/-</td>
</tr>
<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 Vij-16CSU048 Abhishek Jain-16CSU015 Aarushi Sharma-16CSU005 AshimaBassi-16CSU006 Shivam Bajai-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) Vikash 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/-
Best BTech Project Awards

To encourage young minds to strive for excellence and recognize the innovative application of technical ideas of BTech Final-year students, the Best BTech Project Award Committee at the University declared the Best BTech Projects on 24 May 2018. The projects by BTech students are 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 are awarded cash prizes of Rs. 1 Lakh, Rs 75,000 and Rs 50,000 for 1st, 2nd and 3rd Positions respectively and certificates.

The Best BTech Projects for 2018 are:

- **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:**
  1. ‘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
  2. ‘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

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**Research Orientation**

**VC Innovation Fund**

The University continued to encourage innovative ideas of students. Following are the details of the projects and award amounts:

<table>
<thead>
<tr>
<th>S. No.</th>
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<td></td>
<td>Rs 30,000/-</td>
</tr>
<tr>
<td>3</td>
<td>Virtual Reality integrated robotic car</td>
<td>Pallak Singh, Manik Kumar, Vinay Garg, Vineet Jain</td>
<td>Dr. Jyotsna Singh, Ms. Suman Bhatia</td>
<td>Rs 50,000/-</td>
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<td>4</td>
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<td>Dr. Satnam Singh</td>
<td>Rs 46,000/-</td>
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</tbody>
</table>

**Total funds granted under VCIF Scheme**

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Title</th>
<th>Student Details</th>
<th>Mentor</th>
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<td>Dr. Shilpa Mahajan</td>
<td>Rs 70,000/-</td>
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<td>5</td>
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<td>Shubham Atreya, Shubham Gagal, Vikas Chauhan</td>
<td>Dr. Satnam Singh</td>
<td>Rs 46,000/-</td>
</tr>
</tbody>
</table>

*Total funds granted under VCIF Scheme: Rs 2,30,000/-*
<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>Funds received (Rs. Lakhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr Deepika Chaoudhary Mentor: Dr. Hukum Singh (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>28.50</td>
</tr>
<tr>
<td>2</td>
<td>Dr Phool Singh (APS) and 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>15.58</td>
</tr>
<tr>
<td>3</td>
<td>Dr Rita Chhikara (CSE)</td>
<td>Neural network based steganalysis</td>
<td>DST (WOSA)</td>
<td>3</td>
<td>26.06.15</td>
<td>13.87</td>
</tr>
<tr>
<td>4</td>
<td>Ms Vaishali Sahu (CEE)</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>19.34</td>
</tr>
<tr>
<td>5</td>
<td>Dr Akansha Singh, Co-PI: 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>7.40</td>
</tr>
<tr>
<td>6</td>
<td>Dr Chetna Tyagi, Dr Ambika Sharma (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>11.44</td>
</tr>
<tr>
<td>7</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>35.00</td>
</tr>
<tr>
<td>8</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>7.35</td>
</tr>
<tr>
<td>9</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>6.05</td>
</tr>
<tr>
<td>9</td>
<td>Dr. Kavita Khanna Co-PI: Dr. Rita Chhikara (CSE) and Dr. Rakesh Kumar Dua (Max Hospital shalimar bagh)</td>
<td>Detecting Dementia using Deep Neural Networks</td>
<td>DST (CSRI)</td>
<td>3</td>
<td>28.06.2018</td>
<td>4.00</td>
</tr>
</tbody>
</table>

Total | Rs 1.48 Crore |
During the reporting year, ten research projects for a total amount of Rs 2.36 crore have been sanctioned by funding agencies and Rs 1.48 crore has been received till date. One DST (WOS-A) project for Rs 36.96 Lakh has been Technically Approved on 20 Feb 2018 to be developed by Dr Anjali Garg, Dept of EECE. In addition to these, 12 research projects (from Jan to Oct 2018) have been submitted to various funding agencies.

Socially relevant industry sponsored projects

The Dept of ME received approval in Feb 2018 for two socially relevant industry sponsored projects:

- ‘The Mango Project – Development of electric vehicle’ submitted for support to Life CNC Tools, Faridabad. The industry has agreed to sponsor the project after finalizing the details of the vehicle.
- ‘Structural analysis of electric 3W chassis’ submitted to Terra Motors Motors (Japan’s No 1 electric vehicle company) for support. A team from Terra Motors, Gurugram visited NCU in Feb 2018 to see the facilities at NCU and have agreed to sponsor the project after finalizing the details of the vehicle.

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>

The NorthCap University Testing Centre

The NorthCap University Testing Center (NCUTC), established by Dept of Civil & Environmental Engineering, is providing third party assessment of quality in the area of mechanical testing of building and construction materials, such as, cement, aggregate, concrete, soil, bitumen, etc.

One Consultancy for Mix Design of OPC & PPC of Rs 19,200/- is ongoing.

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>
PhD Programme

96 PhD Scholars are currently registered with SOET to carry out their doctoral dissertation. 14 Research Fellows are receiving a contingency grant of Rs 25,000 each per month to facilitate their research.

<table>
<thead>
<tr>
<th>No of Students</th>
<th>Department</th>
<th>Broad Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Mechanical Engineering</td>
<td>Thermo Fluid, Industrial Engg., Industrial Engineering, Mechatronics, Stock Development consumption &amp; waste Mgt., Supply Chain Management</td>
</tr>
<tr>
<td>4</td>
<td>Civil Engineering</td>
<td>Geotechnical Engineering, Concrete Technology, Geotechnical Engineering, Hydrology, GIS and Remote Sensing, Environmental Engineering, Fluid Mechanics</td>
</tr>
<tr>
<td>1</td>
<td>Centre for Languages Learning</td>
<td>American Literature, British Literature, Indian Writing in English, English Language Teaching</td>
</tr>
</tbody>
</table>

Externships

<table>
<thead>
<tr>
<th>S No.</th>
<th>Name</th>
<th>Institution/ Company</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Mr Shubham Bansal &amp; Mr Dipendra Roy</td>
<td>GMR, Delhi</td>
<td>28-29 Nov 2017</td>
</tr>
<tr>
<td>2.</td>
<td>Dr Manoj Kumar Gopaliya &amp; Mr Satnam Singh</td>
<td>Federal Mogul, Bhiwadi</td>
<td>1-2 Dec 2017</td>
</tr>
<tr>
<td>3.</td>
<td>Dr Arjyajoti Goswami</td>
<td>National Physical Laboratory</td>
<td>12-13 Dec 2017</td>
</tr>
<tr>
<td>4.</td>
<td>Dr Vandana Khanna</td>
<td>CSIR-NPL, New Delhi</td>
<td>4-5 Jan 2018</td>
</tr>
<tr>
<td>5.</td>
<td>Ms. Prerna Singal</td>
<td>RankWatch, Gurugram</td>
<td>4 May-5 May 2018</td>
</tr>
<tr>
<td>6.</td>
<td>Dr Anjali Garg</td>
<td>Bonton Cables, Bhiwadi</td>
<td>11 May 2018</td>
</tr>
<tr>
<td>7.</td>
<td>Dr. Jyotsna singh</td>
<td>Dna Automation, Gurugram</td>
<td>30-31 May 2018</td>
</tr>
<tr>
<td>8.</td>
<td>Ms Hitesh Yadav &amp; Ms Neeti Kashyap</td>
<td>Caparo Maruti Pvt Ltd Gurugram</td>
<td>19-20 July 2018</td>
</tr>
<tr>
<td>9.</td>
<td>Mr Abhishek Pratap Singh</td>
<td>Maruti Centre for Excellence (MACE), IMT Manesar</td>
<td>2-3 July 2018</td>
</tr>
</tbody>
</table>
NavIC Lab

The NavIC Lab at the University which was inaugurated on 1 May 2018 is recording data from IRNSS satellites 24*7 and after analyzing it sending it to SAC-ISRO, Ahmedabad on a weekly basis. Research work on the following topics is planned in the NavIC Lab:

- IRNSS disciplined Oscillator
- Common view time transfer
- Positioning accuracy using IRNSS
- Time Synchronization technology using IRNSS
- Study of ionosphere using IRNSS
- Difference in positioning accuracy with and without 7th satellite IRNSS-1I.

Upgradation of Labs

Two computer science labs were upgraded with the configuration: DELL i5 7500 3.4 GhZ, 16GB RAM, 1TB HDD

30 licence of Solidworks software have been integrated in CAD lab and installed on 25 high performance workstations. The software has added value to learning in terms of modelling, designing, and analysis of new products. It will also help in designing projects, research work, skill development, and consultancy. Planning for faculty training, student workshops, and integration with courses is under progress.

Internship/Higher Education/Placements

4th and 6th Sem students went on summer industrial internship in core companies and leading industries like L&T, Airport Authority of India, Huawei Telecom, Airtel, Ericsson, Siemens, BSNL, Mentor Graphics, Power Grid, C&S Electric India Ltd., DMRC, Exicom, Minda, Reliance Jio, DLF and many more. Several students did project based training. For a group of 10 students, a faculty mentor was assigned for counselling and feedback.

Ministry of Human Resource Development (MHRD), GOI, launched 'Swachh Bharat Summer Internship – 100 Hours of Swachhata' under which college students were to perform at least 100 hours of 'Swachhta' related activities in rural areas from 1 May to 31 July 2018. 13 students from SOET successfully completed the internship in 19 selected villages. All participants received a ‘Swachh Bharat Internship Certificate’ along with two curriculum credits. 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, from 4 June to 13 July 2018. Students created solutions for the healthcare industry in Singapore using emerging technologies and thereby gained an industry relevant portfolio.

To ensure value addition and enhance employability of students, under the MoU with Maruti Centre for Excellence (MACE), the Dept of ME organised six weeks of summer internship in engineering analysis (using ANSYS Software), PLC programming, and CNC programming modules for 19 students of BTech from 4 June to 13 July 2018. The programme included four weeks of training at NCU and two weeks of training at the MACE centre. The IIIC Cell in the Dept of CSE&IT facilitated 17 internships in Ansyst Consulting, eSecForte, MMB, LendBox and other companies in Feb 2018 and facilitated 11 internships in March 2018. Vivek Thakur, Final-year, B Tech CEE, bagged a paid summer internship with Environment Design Solutions Pvt Ltd, New Delhi, through the efforts of the student and the Dept of CEE. He received a total stipend of Rs 22,000/- for his excellent performance. Laveena Garg, BSc Maths (H), 3Year, secured All India 20th Rank in IIT-JAM 2018 (Joint admission test for MSc at IIT’s, NIT’s, IISER) conducted by IIT Bombay and pursuing MSc from IIT Bombay.
Results

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>B Tech CSE</td>
<td>232</td>
<td>229</td>
<td>35</td>
<td>176</td>
<td>18</td>
</tr>
<tr>
<td>B Tech CV</td>
<td>58</td>
<td>51</td>
<td>7</td>
<td>41</td>
<td>3</td>
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<tr>
<td>B Tech ECE</td>
<td>112</td>
<td>108</td>
<td>12</td>
<td>88</td>
<td>8</td>
</tr>
<tr>
<td>B Tech EE</td>
<td>26</td>
<td>25</td>
<td>1</td>
<td>16</td>
<td>8</td>
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<tr>
<td>B Tech IT (2013 Batch)</td>
<td>2</td>
<td>2</td>
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<tr>
<td>B Tech 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>
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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>MTech</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>PhD</td>
<td>-</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTech</td>
<td>27</td>
<td>26</td>
<td>3</td>
<td>21</td>
<td>2</td>
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</table>

Medals Awarded

<table>
<thead>
<tr>
<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>BTech (All branches)</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>-</td>
<td>14</td>
</tr>
<tr>
<td>BSc(Maths)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>MSc (Maths)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>MTech (All branches)</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>6</td>
</tr>
</tbody>
</table>
Dean's List

Students with outstanding performance from across the University are included in the Dean's List every year. The Dean’s List of School of Engineering & Technology is as follows:

<table>
<thead>
<tr>
<th>Under Graduate</th>
<th>Post Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ananda Sreenidhi</td>
<td>1. Rahul Sharma</td>
</tr>
<tr>
<td>2. Aruna Dahiya</td>
<td>2. Vinit</td>
</tr>
<tr>
<td>3. Eshita Mann</td>
<td>3. Baljinder Singh</td>
</tr>
<tr>
<td>4. Mahima Munjal</td>
<td>38. Mayank Juneja</td>
</tr>
<tr>
<td>5. Sudhanshu Sharma</td>
<td>39. Nikhil Juneja</td>
</tr>
<tr>
<td>7. Abhishek Jain</td>
<td>41. Rishu</td>
</tr>
<tr>
<td>8. Akansha Mallick</td>
<td>42. Laveena Garg</td>
</tr>
<tr>
<td>9. Archita Raj</td>
<td>35. Dinky Khatri</td>
</tr>
<tr>
<td>10. Charisha Phirani</td>
<td>36. Pranav Garg</td>
</tr>
<tr>
<td>11. Geetika Singh</td>
<td>37. Piyush</td>
</tr>
<tr>
<td>12. Ishita Mehta</td>
<td>38. Akanksha</td>
</tr>
<tr>
<td>13. Piyush</td>
<td>39. Ishita Mehta</td>
</tr>
<tr>
<td>15. Shubham Garg</td>
<td>41. Ananda Sreenidhi</td>
</tr>
<tr>
<td>16. Aadhish Goel</td>
<td>42. Shubham Sehgal</td>
</tr>
<tr>
<td>17. Dinky Khatri</td>
<td>43. Madhur Bahl</td>
</tr>
<tr>
<td>18. Ruchi Arora</td>
<td>44. Ruchi Arora</td>
</tr>
<tr>
<td>19. Sakshi Garg</td>
<td>45. Ruchi Arora</td>
</tr>
<tr>
<td>20. Devansh Bhatia</td>
<td>46. Ruchi Arora</td>
</tr>
<tr>
<td>21. Lakshay Chaudhary</td>
<td>47. Ruchi Arora</td>
</tr>
<tr>
<td>22. Nandini Gupta</td>
<td>48. Ruchi Arora</td>
</tr>
<tr>
<td>23. Rohit Malhotra</td>
<td>49. Ruchi Arora</td>
</tr>
<tr>
<td>24. Shreya Chadha</td>
<td>50. Ruchi Arora</td>
</tr>
<tr>
<td>25. Sahil Sehrawat</td>
<td>51. Ruchi Arora</td>
</tr>
<tr>
<td>26. Aditya Varshney</td>
<td>52. Ruchi Arora</td>
</tr>
<tr>
<td>27. Sarthak Agarwal</td>
<td>53. Ruchi Arora</td>
</tr>
<tr>
<td>28. Pankaj Dagar</td>
<td>54. Ruchi Arora</td>
</tr>
<tr>
<td>29. Nishant Yadav</td>
<td>55. Ruchi Arora</td>
</tr>
<tr>
<td>30. Pankaj Janghu</td>
<td>56. Ruchi Arora</td>
</tr>
<tr>
<td>31. Sidharth Sharma</td>
<td>57. Ruchi Arora</td>
</tr>
<tr>
<td>32. Shubham Sehgal</td>
<td>58. Ruchi Arora</td>
</tr>
<tr>
<td>33. Radhika Agrawal</td>
<td>59. Ruchi Arora</td>
</tr>
</tbody>
</table>

Workshops & Conferences

- International Conference on Computational Intelligence and Data Science 2018 was jointly organized by The Northcap University and University of Dayton, Ohio USA on 7 April 2018. The conference programme included 28 sessions with two keynote lectures by Dr Nilufer Onder, Michigan Technological University, USA on ‘Data Science at the Hardware-Software Interface’ and Prof. Anjali Kaushik, Department of Information Management, MDI, Gurugram, on ‘Issues and Challenges related to Computation, Intelligence and Data Science’.

- Department of CSE & IT took 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 workshop was to equip student with the tools necessary to conceptualize the cyber issue, bolster formal cyber security education programme and conduct high end training on cyber security.

- The Dept of Mechanical Engineering organized the International Conference on Emerging Trends in Mechanical & Industrial Engineering - ICETMIE 2017 from 13-14 October 2017. The objective of the conference was to disseminate and share knowledge about advances in Mechanical and Industrial technology and to provide a platform for active interaction between researchers and academia-industry representatives in the form of technical sessions and discussions on many interesting topics like Design, Thermal, Manufacturing and Industrial Engineering. 56 selected papers were accepted for the conference proceedings, which were published in the form of a book with ISBN No. 978-81-9336-12-7. Selected papers were sent for publication to Scopus and Web of Science indexed international journals. 40 research papers were presented in the conference out of which 21% were from premier institutions such as IIT’s and NIT’s. 24 research papers were conceptual and 15 research papers were case studies.

- The Dept of EECE organized a workshop on ‘Internet of Things’ (IoT) in association with IIT Bhubaneswar and TechieNest (SPIE sponsored society) for BTech ECE and CSE students on topics such as Understanding of IoT Market Perspective, Future Aspects of IoT, Real World IoT Design Constraints, Industrial Automation and Commercial Building, Automation in IoT, Controlling Devices, Interfacings of Peripherals, Serial Communication etc. Along with gaining theoretical knowledge, students also had hands-on sessions on ‘arduino uno’ board in Oct 2017.
The Centre for Languages Learning (CLL) offers courses on Effective Communication as well as compulsory foreign languages viz., German, Spanish and French to students across all Schools of The NorthCap University. During the reporting year, CLL put in concerted efforts to achieve all round excellence in academics as well as extracurricular activities.

Centre for Languages Learning

The Centre conducted a meeting of Board of Studies for the approval of Pre-PhD courses offered by the Centre on 19 April 2018. CLL is offering the PhD programme in English since January 2017.

A Faculty Development Programme on 'Emerging Trends in Teaching and Learning' was organised by the Centre from 1-7 June 2018. Eminent academicians delivered sessions, webinars on 'Critical Communication Skills' by College of Continuing Education, University of Minnesota and 'Interpersonal Skills and Interview Skills' and a movie titled 'The Marva Collins True Story-Great Teacher'. The aim of the FDP was to motivate and inspire faculty members and enrich the learning process.

The Centre runs various clubs like Samwad, Success Mantra, Lingua Franca, Mainstream and Abhivyakt that conducted several enriching activities and competitions. The Speech and Debating Club, Abhivyakt, organized 'Pot Debate' on 12 Feb 2018 on the topic 'Is Bollywood becoming a soft target for political games?' Abhivyakt organized 'Altercation: The Great Debate', an interdepartmental debating competition on 'Are traditions an obstacle to the progress of Indian Society' on 6 April 2018. Club Success Mantra organised an activity called 'Just Jumble' on 13 Feb 2018. Participants guessed jumbled words and sentences and were tested for their grammar skills. Club Samwad organized a 'Round Table Conference' on 15 Feb 2018 to provide students a competitive platform to showcase their auditory skills. Club Lingua Franca, organised an activity, 'Hypothesis Thinking' on 13 Feb 2018.

CLL organized a lecture on 'Gender Sensitivity' by Mr Tanay Yadav, Prabhaav Learning Pvt Ltd, for 4th Sem CEE students on 1 May 2018. Focus was on using more gender-neutral language and respecting each other for being a human, irrespective of the gender.

CLL in collaboration with the School of Professional Attachment (SPA) guided students for interviews, group discussions, writing CVs and résumés and developing their soft skills to enhance their placement prospects.

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.

Faculty members presented research papers in various international conferences and published their research papers in journals of repute. A talk on 'Basics of Communication' was delivered at Hitachi Chemical India Pvt Ltd to 25 Managers of this 100 year old Japanese company which was appreciated by the participants. Members of the faculty also judged debates and literary fests in various schools in Delhi-NCR.

National Science Day

To pay tribute to the Nobel Laureate Sir Chandrasekhar Venkata Raman for his invention of the Raman Effect through his experiments on the scattering of light and to spread the message of the importance of science and its application, 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. Some of the main projects on display were the IR Radar, Aquarex, metal detector, and water quality checker.

Technovation 2018

To give students a platform to showcase their innovative ideas in the form of projects, the School of Engineering and Technology organized Technovation – The Annual Project Day on 6 April 2018. During the event about 80 students of BTech Final-year, Depts of EECE, CSE&IT, ME and CEE showcased their innovation through 23 major projects from out of the many that were actually developed. Some popular projects were Elevate, Electrical Vehicle, Gesture Recognition, Personal Assistant Robot etc.

The Dept of CEE organized their Annual Society Technical Fest Space Day-17 on 14 Nov 2017. The fest was planned with a plethora of technical and non-technical events. Final year students of the Dept of CEE displayed their projects at NIT Hamirpur’s Tech Fest 'NIMBUS 2018' in April 2018. Teams from various colleges from across the country participated in the event and showcased their final year projects.
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School of Management

The vision of the School of Management (SOM) is to be a leading management school emphasizing on academic excellence, research, innovation, entrepreneurship and developing socially sensitive managers. The School of Management draws upon the faculty resource and knowledge base of School of Engineering and Technology and School of Law so that its students get holistic pedagogical support, which is vital for today's fast changing business world.

Collaboration/MoU

The NorthCap University signed an MoU with Child Rights and You (CRY) for student internships in May 2018.

Programmes & Admission Criteria

The School is successfully running the three-year UG programmes of BBA, BCom (H), two year full time MBA programme and PhD in Management. The admission criteria to the various programmes is as under:

BBA: Minimum 60% in Classes X & XII - best of four (Marks in English included, Physical Education not included)

BCom (H): Minimum 60% in Classes X & XII - best of four (Marks in English included, Physical Education not included; Minimum 50% marks in either Maths or Accountancy)

MBA: Minimum 60% in Classes X & XI; Minimum 50% in Bachelor's Degree & in any one of the National Tests viz., CAT/XAT/CMAT/ATMA/MAT/GMAT (Sept 2017-May 2018)

PhD: Post Graduate with 60% marks

Admission to MBA and other programmes were successfully conducted including the University's Management Entrance Test (NMET). The PhD (Management) programme is progressing well.

A meeting of Board of Studies comprising of renowned external experts such as Prof. Sunil Asra, Head, Economics, MDI, Gurugram and Prof. Anil Kumar, SRCC, DU, was held on 5 June 2018. 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.

Prof. AP Dash joined as Professor, Dy Dean-MDP & Officiating Dean, SOM on 3 May 2018. Dr Esha Jain (Finance), Dr Priyanka Banerjee (Economics), Ms Jahanvi Bansal (HR) and Ms Aditi Vallabh (Economics) joined as Assistant Professors in July 2018. Orientation Sessions for new and visiting members of the faculty were organized on 13 Jan 2018 and 4 Aug 2018. Members of the faculty were apprised about the different policies and practices of the University/School and were given initial training on LMS, OTMS, ERP etc. A Faculty Development Programme was organized on 'Capability Building Leading to Better Performance' from 1-6 June 2018. A faculty development workshop on 'Business Analytics Using R' was organized from 16-21 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. Members of the faculty have been mentored by eminent academicians and industry experts. A Parent Faculty Interaction Meet was organised in SOM on 3 Feb 2018. Parents came in large numbers and discussed the performance of their wards with faculty mentors.
Research Orientation

One member of the faculty is pursuing PhD and scholar Karishma Chaudhary completed PhD on the topic ‘Modeling and Analysis of Reverse Supply Chain of E-waste in India’ under the supervision of Prof. Prem Vrat. 13 scholars are currently pursuing PhD in the areas of Finance, Human Resource Management, Retail Marketing, Marketing, Entrepreneurship, Knowledge Management, Rural Marketing, Operations Management, Advertising and Entrepreneurship. Two Research Fellows are each receiving a contingency grant of Rs 25,000 per month, to facilitate their research.

Consultancy Projects

Following Consultancy projects were undertaken at the School of Management 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>Amount Received (Rs/)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Christ Institute of Management, Ghaziabad</td>
<td>Sessions on Industrial/Organizational Psychology</td>
<td>SOM (Dr Sushmita Biswal Waraich)</td>
<td>30,000</td>
</tr>
<tr>
<td>2.</td>
<td>DST - NIMAT (National Implementing and Monitoring Agency for Training)</td>
<td>Entrepreneurship Awareness Camp</td>
<td>SOM (Dr Jaya Ahuja &amp; Dr Saumya Dixit)</td>
<td>40,000</td>
</tr>
<tr>
<td>3.</td>
<td>Management Development Programme</td>
<td>Managerial Skills</td>
<td>SOM (Dr A.P. Dash)</td>
<td>60,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total (in Rs. Lakhs)</strong></td>
<td><strong>1,30,000</strong></td>
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</tr>
</tbody>
</table>
Internship/Higher Studies/ Placements

During the reporting year, students took keen interest in community service and voluntarily contributed towards the upliftment of marginalised sections of the society. A team of students interned from 28 Nov 2017 to 15 Jan 2018 at Agewell Foundation on a project under the banner ‘Spread the Warmth’. The project involved making people aware of the joy of giving, collecting usable clothes, and distributing to the underprivileged. It received positive media coverage in several national dailies and appreciated by Agewell Foundation. A team of five BBA students volunteered for summer internship at CRY and served the community from 25 June to 25 July 2018, at Gurugram. They taught children to read, write, hygiene, etiquette etc. and involved them in extracurricular activities.

An orientation session for summer internships was organized at the School on 21 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. The Diary and guidelines were shared with the students and their queries related to the forthcoming internships were addressed in the session. Thereafter, a total of 175 students underwent summer internship at companies like Hero Cycles, Maruti Suzuki, PolicyBazaar, HDFC Bank, UAS International, Lumax Industries, Pearl Global, Asahi, Lemon Tree, Hero Motor Corp., Axis Bank, Dedicated Freight Corridor Corp. of India etc. Each student did the summer internship training for 6-8 weeks.

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 rallied, organized movie screening, and through door to door visits and poster competitions created awareness about the importance of sanitation, hygiene and solid waste management.

Namit Rathee, BCom (H), Final-year student scored 91.78 percentile in CAT 2017. 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.

Results

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Dean's List

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<td>Shivam Chawla</td>
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</tr>
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<td>Shubhangi Bhardwaj</td>
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<td></td>
<td>Mitasha Sapra</td>
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Publications
Faculty members published six papers in national and four papers in international journals, made presentations in three conference proceedings and wrote articles in newspapers. They attended workshops, judged events etc. in other reputed universities (Details at the end of the Report).

Seminars, Conferences, Workshops
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’ from 8-9 March 2018. Coinciding with International Women’s Day, the Chief Guest for the inaugural session was Prof. Kavita Sharma, President, South Asian University, New Delhi, and keynote speaker was Dr. Bijaylakshmi Nanda, Vice-Principal, Miranda House, DU. 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’. Prof. Furqan Qamar, Secretary General, AIU, was the chief guest at the valedictory session. A Road Safety Awareness session in collaboration with the Road Safety Cell, Delhi Traffic Police was organized on 19 April 2018.
Mindkraft
SOM organized Management Fest ‘Mindkraft’ – a fusion of skill, will and thrill on 1 May 2018. It served as a potent platform for students to unleash their talent and display their skill and creativity. With an array of events, the fest honoured students’ interests, competencies and ingenuity. Students from various schools and colleges participated in the events with great enthusiasm.

Entrepreneurship Development Cell
Two Entrepreneurship Awareness Camps (EAC) sponsored by Entrepreneurship Development Institute of India (EDII), Ahmedabad, were organized to motivate students towards entrepreneurship. 105 students participated in the first EAC from 22-24 March 2018 and 87 students participated in the second EAC from 28-30 March 2018. The topics discussed were related to Rural Marketing, IPR, Business Continuity Planning, Creativity and Innovation.

The Entrepreneurship Development Cell organized a challenging event named ‘Mock Stock Scene’ during NCU’s cultural fest, ‘Momentum’ on 1 Nov 2017. Participants competed in a simulated stock market scenario and were free to invest/sell independently in given companies, based on news updates, over a couple of hours.

Alumni Meet
A session on ‘Campus to Corporate: Dialogue with Young Managers’ was organized on 11 Nov 2017. Alumni Ms Sumedha Bansal, (MBA, Class of 2015), E&Y; Mr Shobhit Bhatnagar (MBA, Class of 2014), PwC; Mr Dhruv Aneja, (BTech ECE, Class of 2016), Deloitte; Mr Puneet Khanduja, (MBA, Class of 2015), Mercer and Mr Trishala Bhan (MBA, Class of 2015), Protiviti, interacted with students. They shared their experiences and their misconceptions, expectations etc. as they transitioned from campus to the workplace, highlighted opportunities and challenges that lie in the market and how to prepare for the same.
School of Law

The vision of the School of Law is to be ranked amongst some of the best law schools in India and the most preferred private university destination for law aspirants. School of Law at The NorthCap University provides the highest quality professional law courses in Gurugram to equip the students for a transnational practice and to face the challenges posed by the internationalization of the legal profession.

Programmes & Admission Criteria

The School of Law offers three programmes viz., the five-year integrated BBA-LLB (Hons) at the undergraduate level, a one-year LLM with specialization in Human Rights and Corporate Law at the postgraduate level, and a full-time/partial time PhD programme at the doctoral level to pursue research in contemporary legal areas like Environmental Laws, IPR, Civil Laws, Criminal Laws, Corporate Laws, Labour Laws, Constitutional Laws etc. The admission criteria is as follows:

- **BBA-LLB (H)** - CLAT/LSAT/AILET/NCU-LET with 55% marks in 10+ aggregate and 50% marks in English
- **LLM** - LLB degree
- **PhD** - LLM degree

During the year faculty members were involved in outreach activities to deliver lectures, judge Moot Court competitions, and conduct workshops at reputed Law universities and upskilled and expanded their capabilities to remain contemporary and relevant. Dr Praveen Kumar Lohchab, Assistant Professor (Sel Grade), attended a week long Teacher Training Programme on Environmental Laws organized by the Centre for Environmental Law, Policy and Research, National Law University, Delhi, under the aegis of National Academy of Teachers from 9-15 July 2018.

Research Orientation

Six members of the faculty are pursuing research. Dr Subhradipta Sarkar, Assistant Professor, was awarded PhD Degree by the National Law School of India University, Bengaluru, on the topic ‘Centre-staging international Human Rights, humanitarian and environmental concerns in the natural disaster management legal regime: An evaluative study’. Dr Balwinder Singh, Assistant Professor, was awarded PhD Degree by the University of Jammu for his thesis entitled ‘Food Security and Effectiveness of Public Distribution System: A Socio-Legal Study with reference to the State of Jammu and Kashmir’. 11 research scholars are pursuing PhD in SOL in the field of Human Rights, Constitutional Law, Intellectual Property Rights, Civil laws, Foster law, Science and Technology Law, Environmental Law, Corporate Law, Administrative Law, Criminal Law, Business Law. Research Scholar Radha Krishanan K has submitted his synopsis after completing research work on Patent Laws in July 2018.

New faculty members Dr Shabana Shabnam, Ms Latika Choudhary, Ms Garima Lakhmani, Ms Unanza Gulzar and Ms Neha Kapur joined as Assistant Professors in the School of Law in July 2018.
CDEEP submitted a research proposal which has been accepted by NLSIU, Bengaluru 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:

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<td>2.</td>
<td>Two Day Advanced Regional Workshop</td>
<td>Feb to April 2019</td>
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Research proposal on 'Drafting Policy Guidelines for Shale Gas Fracking and Natural Resource Management' has been submitted to ONGC, the implementation authority for sanction, by the Director General, Hydrocarbons. Approval is awaited.

**Students' Achievements**

Students Tanish Khandelwal and Karan Kataria, 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 on 16 Aug 2018.

Mohit Vats, CDEEP student co-ordinator, has been appointed as Member, Editorial Board of Indian Constitutional Law Review (ISSN-2456-8325)

**Conferences, Seminars & Workshops**

The Centre for Post Graduate Legal Studies, School of Law (CPGLS), SOL, organized an International Conference on Right to Privacy on 14 Oct 2017. The Conference was inaugurated by Chief Guest, Mr Salman Khurshid, Senior Advocate, Supreme Court of India. A compilation of Abstracts of the conference in the form of a book with ISBN number 978-164136210-8 was released at the inaugural by Mr Khurshid. The conference witnessed an overwhelming response with papers received from leading law colleges in USA, UK, Nepal, Sri Lanka, Bangladesh and India with around 100 participants at the conference.

A workshop on the topic ‘Impact of technology on citizens at the heart of Smart Cities: Behavioural aspects of their engagement’ was conducted by Ms Mateja Geder, international education expert at Gravita Media, Republic of Slovenia on 10 Sept 2018. The workshop helped students understand the role that citizens play in a Smart City and the impact of technology on their behavioural aspects.

**National Client Consultation Competition**

The 4th National Client Consultation Competition was organized by SOL to promote greater knowledge and practical skills among student advocates in the preventive law and counselling functions of law practice on 1 Sept 2018. The competition simulated a consultation in a law office in which two law students, acting as lawyers (attorneys/solicitors/legal practitioners) were presented with a client matter and conducted an interview with a person playing the role of a client. Shri Surinder S Rathi, Director, NALSA was the Chief Guest at the occasion. 32 teams from across the country participated in the competition which was judged by eminent members of the judiciary. After a tough fight University Institute of Legal Studies, Panjab University came out as Winners while Symbiosis Law School, Pune, were the Runners-up.

The 3rd National Client Consultation Competition on ‘Access to Justice’ was organized on 9 Sept 2017 which was inaugurated by the living legend, Mr Ram Jethmalani, Senior Advocate of the Supreme Court of India, and Hon’ble Member of Parliament.
Moot Court

The 5th Edition of NCU National Moot Court Competition (NMCC) on Environmental Law was organized from 14-15 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'. The event was inaugurated by Hon’ble Mr Justice Rajesh Kumar Agarwal, Judge, Supreme Court of India, Dr SB Mitra, Executive Director (Law & HR), GAIL (India) Ltd, Padma Shri Prof. Pushpesh Pant, Professor Emeritus, NCU. Justice Agarwal praised the School of Law, for highlighting such a critical and important issue of present day relevance, namely the Shale Gas as an alternative source of energy. The Moot Court Competition witnessed participation from Central and State universities, National and private Law Schools from all over the country.

The Final Round of the Competition was chaired by a bench of dignitaries viz., Hon’ble Justice M Karpaga Vinayagam, Former Chief Justice, Jharkhand High Court, Prof. (Dr) Paramjit S Jaswal, Vice-Chancellor, Rajiv Gandhi National University of Law and Prof. Anatole Boute, Associate Professor, Chinese University of Hong Kong, specializing in energy, environment and investment law.

A team of eight NCU Law students participated in the 15th Annual Willem C Vis (East) International Commercial Arbitration Moot Competition held from 11-18 March 2018 in Hong Kong. 164 registered teams participated in this Moot Competition which was the 2nd largest commercial arbitration moot in the world. NCU team argued against teams from Vietnam, China, Indonesia and Berlin. Students gained exposure and experience in the field of international commercial arbitration, international sales and contract law and interacted with experts in the field and had the privilege of receiving personalized feedback from them.

A training programme on Drafting, Pleading and Formatting of Moot Memorials by Memo Pundits was organized on 10 Aug 2018. The aim of this training was to make law students privy to all the nuances of Moot Court Competitions and prepare them to succeed in domestic as well as international moot court competitions. More than 100 law students participated in the training.

Centres in School of Law

- The Centre of Intellectual Property Rights Advocacy, Research and Training (CIPRART)

CIPRART in collaboration with Trademarkclick.com and Latestlaws.com organized a workshop on the theme ‘Why Intellectual Property is must for all?’ on 13 Aug 2018. The workshop dealt with IPR laws, practical aspects of IPR, live practical examples of trademark and copyright infringement, how to sell, franchise or license a trademark and how to protect a brand name.
Centre for Development in Energy and Environment Law (CDEEP)

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 proposition of the Vth Edition of NCU National Moot Court Competition 2018 was based on exploration of energy resources for which CDEEP received a sponsorship amount of Rs 1 Lakh from GAIL (India) Ltd.

Student members of CDEEP, got an opportunity to rapporteur during the technical sessions of the World Environment Day celebrations organized by MoEFCC from 1-4 June 2018 at Vigyan Bhavan, New Delhi. They were also paid an incentive for the same, besides gaining knowledge about initiatives and targets undertaken by the Indian Government, in this regard.

Centre for Post-Graduate Legal Studies (CPGLS)

The Centre for Post Graduate Legal Studies (CPGLS) organized an International Conference on Right to Privacy – ICRP 2017 on 14 Oct 2017. (Details given elsewhere in the Report)

A six-day Faculty Development Programme was organized by the CPGLS from 1-7 June 2018. The overall goal of the FDP was to attain an in-depth understanding about pedagogy of research and teaching in the domain of Law vis-à-vis enhancing the research capabilities of faculty members. (Details given elsewhere in the Report)

Legal Aid Clinic

The 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 (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 Legal Aid Clinic, in association with DLSA organized a 'Legal Aid and Awareness Drive' at Village Choma and neighbouring areas of Distt Gurugram, for the under-privileged so as to make them aware about their rights, on 17 Nov 2017. 15 students helped in spreading legal literacy, provided effective solutions to problems of the public and created awareness about the services offered by DLSA. Guest lectures are also being organized at NCU by DLSA.

A Road Safety Awareness campaign was organized from 1-7 Aug 2018 under advice of DLSA, Gurugram. Banners were displayed in and around the University and activities such as lectures and quiz were conducted on campus. To sensitise the local community, a march and a short skit on road safety was organized in the neighbourhood.

Internship/Higher Education/Placements

Students went for summer/winter internship on completion of semester to institutions such as NGOs, Distt Courts, High Courts, Supreme Court of India, Office of Public Prosecutor, Tier-I, II, III Law firms, Patent Office, Cyber Cell etc. Despite stiff competition in the market, with the efforts of SPA and SOL’s Recruitment Coordination Committee the graduating batch of Law students were placed at reputed organizations such as Karanjawala & Co, Juris Corp, Chadha & Co, Chadha & Chadha Associates, Mind Merchants, Glehman, Legal League Consulting, etc.

It is indeed a matter of pride to announce that one of our BBA-LLB (H), Class of 2018, student got admission to the PGT Law Programme at the prestigious Centre for Commercial Law Studies, School of Law, Queen Mary University of London (QMUL). The School of Law, QMUL, is named among the top 50 Law Schools worldwide by the Times Higher Education 2018. Another BBA-LLB (H), Class of 2017, student is pursuing LLM at the University of London.
Results

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<th>Discipline</th>
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Publications

Faculty members published book chapters and papers in national and international journals and made presentations in conferences.

Research Papers in UGC approved journals : 16
Book Chapters : 02
Research Paper presentation by faculty : 10

(Details at the end of the Report)

Educational Visits

SOL organized visits to the Supreme Court of India, New Delhi, on 17 and 25 April 2018 with an aim to connect law students with legal luminaries of the Supreme Court of India. They attended parallel sessions in eleven different court rooms presided by Hon’ble Chief Justice Mr Dipak Misra and other Hon’ble judges.

A visit to the Prayas Observation Home for Boys as well as the Juvenile Justice Board II in Delhi, was organized for Law students to provide first-hand opportunity for understanding the juvenile justice system and rehabilitation at juvenile homes on 23 April 2018. The visit was under the MoU with the Department of Women & Child Development, New Delhi.

Induction Programme

A two week Induction Programme was organized for 1st Year students from 23 July to 3 Aug 2018 in which various events were organized for the freshers at SOL such as visit to the Thought Lab and Tinkering Lab, guest lectures and lectures on research writing, interaction with Alumni, Moot and Legal Aid sessions, Clubs and Societies Fest, yoga and sports, cultural activities and recreational activities such as Treasure Hunt, Talent Hunt, documentary screening, industrial visit, Mentoring sessions, Basic English, Basic Computers, lecture on General Proficiency, etc.
School of Professional Attachment (SPA)

The School of Professional Attachment (SPA) ensures regular interface and dialogue with the industry for professional enrichment and better job opportunities of students. SPA is engaged in building and enriching the potential of each student and helps them plan their careers ahead. SPA nurtures students from induction to placement and acts as a bridge between a student and his/her first job. SPA strives for the holistic development of students making them industry ready for a smooth transition from campus-to-corporate.

SPA enhances the employability of students through improved industry internship attachment often culminating in placements, increased students’ ownership, career counselling and gap analysis, obtaining higher and better job placements with a wider industry reach and obtaining industry feedback for improving the curriculum. SPA equips students with the right kind of skills and attitude so that they can become more effective, efficient and productive in their employer’s organization.

NCU has taken a new initiative to facilitate evaluation of students’ employment readiness and gap analysis by outsourcing it to the company ‘Aon CoCubes’ who 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, it also helps to generate employment leads for the students with its empanelled companies. Youth4Work, an assessment and skill profiling portal in India, is providing assessment of students starting from 1st Year till the Final-year and thereby enhancing their communication skills, aptitude as well as domain knowledge.
Job placements at the University are arranged by inviting companies for an on-campus selection process as well as nominating students to prospective employers for their in-house selection process. Focus is on widening industry reach and getting better salary packages for students. Efforts are made to reach out to a large number of companies across all verticals and inviting them to the campus for carrying out their placement process. Currently there are 162 companies recruiting from the University.

Relentless efforts of SPA have resulted in over 90% placements of eligible students from all the three Schools – School of Engineering & Technology, School of Management and School of Law, Class of 2018. Placements were achieved in premier companies like Yatra.com, Deloitte Consulting, United Health Group-Optum, Ernst & Young, British Telecom, Fidelity, Libsys Corp., Newgen, Lutron, Protiviti, Nagarro, Adobe, Horiba, IndiGo, Denso, HSBC, Mando, InfoEdge, Zomato Ameriprise Financials etc. A positive feedback of the previously employed students from the employer organizations resulted in these companies continuing to return for campus placements with more inclusions each year.

As regards internships, Arushi Dutta, Madhur Bahl and Milind Wadhwa (Class of 2018) were selected as interns at United Health Group-OPTUM and later all three received Pre-Placement Offers with a salary package of Rs 6.5 LPA.

Besides placements, a number of our students have gone 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.
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<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>159</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STRENGTH**

1. Number of Students Placed: 157
2. % Placements: 99%
3. Not Eligible: 14
4. Not Applying Due to Family/Business/Higher Studies/Not Interested: 49
5. Eligible & Interested for Placement: 159

Some Leading Recruiters
### Student Strength and Intake 2018

<table>
<thead>
<tr>
<th>S No</th>
<th>School</th>
<th>Admitted in 2018</th>
<th>Students strength other than fresh intakes</th>
<th>Total Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>School of Engineering &amp; Technology</td>
<td>339</td>
<td>1365</td>
<td>1704</td>
</tr>
<tr>
<td>2</td>
<td>School of Management</td>
<td>193</td>
<td>321</td>
<td>514</td>
</tr>
<tr>
<td>3</td>
<td>School of Law</td>
<td>90</td>
<td>330</td>
<td>420</td>
</tr>
<tr>
<td>4</td>
<td>PhD</td>
<td>15</td>
<td>112</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>637</strong></td>
<td><strong>2128</strong></td>
<td><strong>2765</strong></td>
</tr>
</tbody>
</table>

### BTech Admission Profile

Top marks in JEE Main & 10+2 establish continued high merit levels at the intake stage for BTech.

<table>
<thead>
<tr>
<th>SL. NO.</th>
<th>BRANCH</th>
<th>JEE MAIN (Out of total 360)</th>
<th>10+2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CSE</td>
<td>95</td>
<td>93.80%</td>
</tr>
<tr>
<td>2</td>
<td>MECH</td>
<td>85</td>
<td>86.00%</td>
</tr>
<tr>
<td>3</td>
<td>ECE</td>
<td>44</td>
<td>84.60%</td>
</tr>
<tr>
<td>4</td>
<td>CV</td>
<td>37</td>
<td>90.6%</td>
</tr>
</tbody>
</table>
### Conferences, Workshops and Training Programmes

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Department</th>
<th>Conference</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>CSE &amp; IT</td>
<td>Resilient Analytics, an emerging branch of Data science</td>
<td>4 Oct 2017</td>
</tr>
<tr>
<td>2.</td>
<td>SOL</td>
<td>Workshop on Cyber Security and Law</td>
<td>4-5 Oct 2017</td>
</tr>
<tr>
<td>3.</td>
<td>NCU</td>
<td>Yellow-belt Six-sigma Certification Programme</td>
<td>5-6 Oct 2017</td>
</tr>
<tr>
<td>4.</td>
<td>CSE&amp;IT</td>
<td>IDP Education Ltd</td>
<td>6 Oct 2017</td>
</tr>
<tr>
<td>5.</td>
<td>EECE</td>
<td>Robotics and Projects</td>
<td>11 Oct 2017</td>
</tr>
<tr>
<td>6.</td>
<td>ME</td>
<td>International Conference on Emerging Trends in Mechanical &amp; Industrial Engineering (ICETMIE) 2017</td>
<td>13-14 October 2017</td>
</tr>
<tr>
<td>7.</td>
<td>CPGLS, SOL</td>
<td>an International Conference on Right to Privacy</td>
<td>14 Oct 2017</td>
</tr>
<tr>
<td>8.</td>
<td>NCU</td>
<td>TEDx</td>
<td>22 Oct 2017</td>
</tr>
<tr>
<td>9.</td>
<td>EECE</td>
<td>Internet of Things</td>
<td>25 Oct 2017</td>
</tr>
<tr>
<td>10.</td>
<td>SOM</td>
<td>Sustainability Education: Sensitizing Students Towards Societal Needs</td>
<td>27 Oct 2017</td>
</tr>
<tr>
<td>11.</td>
<td>CEE</td>
<td>Workshop on Primavera P6 software</td>
<td>19 Jan 2018</td>
</tr>
<tr>
<td>12.</td>
<td>EECE</td>
<td>Workshop on NavIC</td>
<td>5 Feb 2018</td>
</tr>
<tr>
<td>13.</td>
<td>ME</td>
<td>Seminar on Renewable Skill Development</td>
<td>13 Feb 2018</td>
</tr>
<tr>
<td>14.</td>
<td>CLL</td>
<td>Round Table Conference</td>
<td>15 Feb 2018</td>
</tr>
<tr>
<td>15.</td>
<td>EECE</td>
<td>Workshop on Deep Learning with MATLAB</td>
<td>22 Feb 2018</td>
</tr>
<tr>
<td>16.</td>
<td>IRSC-NCU Student Chapter</td>
<td>Certified Training Workshop</td>
<td>23 Feb 2018</td>
</tr>
<tr>
<td>17.</td>
<td>EECE</td>
<td>Workshop on Artificial Intelligence</td>
<td>6 Mar 2018</td>
</tr>
<tr>
<td>18.</td>
<td>EECE</td>
<td>Workshop on MATLAB</td>
<td>20 Mar 2018</td>
</tr>
<tr>
<td>19.</td>
<td>CEE</td>
<td>Workshop on MX Road Software</td>
<td>22 Mar 2018</td>
</tr>
<tr>
<td>20.</td>
<td>SPA</td>
<td>Career Counselling Workshop</td>
<td>23 Mar 2018</td>
</tr>
<tr>
<td>21.</td>
<td>SOL</td>
<td>Westlaw Training</td>
<td>26 Mar 2018</td>
</tr>
<tr>
<td>22.</td>
<td>ACM Student Chapter &amp; Google</td>
<td>Workshop on Machine Learning and Artificial Intelligence</td>
<td>2 April 2018</td>
</tr>
<tr>
<td>23.</td>
<td>CSE&amp;IT</td>
<td>International Conference on Computational Intelligence and Data Science</td>
<td>7-8 April 2018</td>
</tr>
<tr>
<td>24.</td>
<td>CSE&amp;IT</td>
<td>Workshop on Big Data and Deep Learning</td>
<td>7-8 April 2018</td>
</tr>
<tr>
<td>25.</td>
<td>IEEE Society &amp; Advanced Technologies, Chandigarh</td>
<td>Workshop on Wireless Sensor Networks</td>
<td>16-17 April 2018</td>
</tr>
<tr>
<td>26.</td>
<td>SOM</td>
<td>Workshop on Business Analytics Using R</td>
<td>16-21 July 2018</td>
</tr>
<tr>
<td>27.</td>
<td>Library</td>
<td>Training on Manupatra</td>
<td>25 July 2018</td>
</tr>
<tr>
<td>28.</td>
<td>SOL</td>
<td>Drafting, Pleading and Formatting of Moot Memorials</td>
<td>10 Aug 2018</td>
</tr>
<tr>
<td>29.</td>
<td>CIPRART, SOL</td>
<td>Workshop on Why Intellectual Property is must for all?</td>
<td>13 Aug 2018</td>
</tr>
<tr>
<td>30.</td>
<td>CEE &amp; EXPONIQ Engineering Services Pvt Ltd</td>
<td>Workshop on ETABS Software</td>
<td>13 Aug 2018</td>
</tr>
<tr>
<td>31.</td>
<td>Library</td>
<td>EbSCO Business Source Elite Database</td>
<td>17 Aug 2018</td>
</tr>
<tr>
<td>32.</td>
<td>SOM</td>
<td>Team building …</td>
<td>18 Aug 2018</td>
</tr>
<tr>
<td>33.</td>
<td>Library</td>
<td>Training on How to access McGraw Hill E-Books</td>
<td>24 Aug 2018</td>
</tr>
<tr>
<td>34.</td>
<td>CSE&amp;T</td>
<td>Workshop on IoT</td>
<td>4 Sept 2018</td>
</tr>
<tr>
<td>35.</td>
<td>EECE &amp; TrueChip</td>
<td>Workshop on VLSI Design</td>
<td>6 Sept 2018</td>
</tr>
<tr>
<td>36.</td>
<td>CSE&amp;T</td>
<td>Workshop on Machine Learning</td>
<td>6 Sept 2018</td>
</tr>
<tr>
<td>37.</td>
<td>CEE</td>
<td>Workshop on Role of Mathematics and Science in Civil Engineering</td>
<td>7 Sept 2018</td>
</tr>
<tr>
<td>38.</td>
<td>SOL</td>
<td>Workshop on Impact of technology on citizens at the heart of Smart Cities…</td>
<td>10 Sept 2018</td>
</tr>
<tr>
<td>39.</td>
<td>Library</td>
<td>Training on Manupatra</td>
<td>11 Sep 2018</td>
</tr>
<tr>
<td>40.</td>
<td>ME</td>
<td>Workshop on Solar PV training</td>
<td>13 Sept 2018</td>
</tr>
<tr>
<td>41.</td>
<td>EECE &amp; Coding Ninjas, ND</td>
<td>Workshop on Fundamentals and Data Structures in Java</td>
<td>14 Sept 2018</td>
</tr>
<tr>
<td>42.</td>
<td>NITTTR, Chandigarh</td>
<td>Training programme on 4G and 5G through ICT</td>
<td>17-21 Sept 2018</td>
</tr>
<tr>
<td>43.</td>
<td>EECE</td>
<td>Workshop on Group Discussions</td>
<td>27 Sept 2018</td>
</tr>
<tr>
<td>44.</td>
<td>EECE</td>
<td>Workshop on Arduino Projects</td>
<td>24 Sept 2018</td>
</tr>
<tr>
<td>S. No.</td>
<td>Faculty</td>
<td>Dept</td>
<td>Conference/Workshop/Seminar</td>
</tr>
<tr>
<td>-------</td>
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<td>--------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1.</td>
<td>Dr Anjali Garg &amp; Dr Sharda Vashist</td>
<td>EECE</td>
<td>International Conference on Computing and Communication Technologies for Smart Nation</td>
</tr>
<tr>
<td>2.</td>
<td>Dr Anjali Garg &amp; Dr A K Misra</td>
<td>EECE</td>
<td>International Conference on Recent Developments in Science, Engineering and Technology</td>
</tr>
<tr>
<td>3.</td>
<td>Dr Sunita Sharma</td>
<td>APS</td>
<td>Workshop on Patent Drafting</td>
</tr>
<tr>
<td>4.</td>
<td>Dr Aditya Sharma Ghrera</td>
<td>APS</td>
<td>International Conference on Nanobiotechnology</td>
</tr>
<tr>
<td>5.</td>
<td>Dr Balwinder Singh Slathia</td>
<td>SOL</td>
<td>National Conference on Climate Change and Sustainable Development</td>
</tr>
<tr>
<td>7.</td>
<td>Dr Aditya Sharma Ghrera</td>
<td>APS</td>
<td>International Conference on Advances in Polymer Science &amp; Technology</td>
</tr>
<tr>
<td>8.</td>
<td>Prof. Prem Vrat</td>
<td>Pro-Chancellor</td>
<td>ASQ’s South Asia International Conference</td>
</tr>
<tr>
<td>9.</td>
<td>Dr Sonali Yadav</td>
<td>SOM</td>
<td>Case Method Workshop</td>
</tr>
<tr>
<td>10.</td>
<td>Prof. Prem Vrat</td>
<td>Pro-Chancellor</td>
<td>North Zone Vice Chancellor’s Conference of AIU</td>
</tr>
<tr>
<td>11.</td>
<td>Dr Hukum Singh &amp; Dr Aryajyoti Goswami</td>
<td>APS, ME</td>
<td>International Conference on Nanotechnology: Ideas, Innovations and Initiatives,</td>
</tr>
<tr>
<td>12.</td>
<td>Dr Sonali Yadav</td>
<td>SOM</td>
<td>5th PAN-IIM, World Management Conference</td>
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<tr>
<td>13.</td>
<td>Ms Pallavi Bajpai</td>
<td>SOL</td>
<td>International Seminar on Women and Law</td>
</tr>
<tr>
<td>14.</td>
<td>Mr Anmol Bhatia</td>
<td>ME</td>
<td>Workshop on MIG/MAG and its Variants</td>
</tr>
<tr>
<td>15.</td>
<td>Mr Jag Parvesh Dahiya</td>
<td>ME</td>
<td>Workshop on Fundamentals of Duct Design</td>
</tr>
<tr>
<td>17.</td>
<td>Prof. Prem Vrat</td>
<td>Pro-Chancellor</td>
<td>Workshop on Deemed to be University</td>
</tr>
<tr>
<td>18.</td>
<td>Dr Hukum Singh &amp; Ms Poonam Yadav</td>
<td>APS</td>
<td>International Conference on New Horizons in Science, Engineering, Management and Humanities</td>
</tr>
<tr>
<td>19.</td>
<td>Dr Hukum Singh</td>
<td>APS</td>
<td>International Conference on New Horizons in Science, Engineering, Management and Humanities</td>
</tr>
<tr>
<td>20.</td>
<td>Dr Vijendra Singh</td>
<td>CSE</td>
<td>International Conference on Wireless, Intelligent, and Distributed Environment for Communication</td>
</tr>
<tr>
<td>21.</td>
<td>Dr Bharati Arora</td>
<td>APS</td>
<td>AISCCON National Women Conference</td>
</tr>
<tr>
<td>No.</td>
<td>Faculty Name</td>
<td>Department</td>
<td>Conference/Workshop/Seminar Details</td>
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<tr>
<td>22.</td>
<td>Dr Aditya Sharma Ghara</td>
<td>APS</td>
<td>International Conference on Recent Trends in Science &amp; Technology</td>
</tr>
<tr>
<td>23.</td>
<td>Dr Rekha Vig</td>
<td>EECE</td>
<td>IEEE conference IndiaCom-2018</td>
</tr>
<tr>
<td>24.</td>
<td>Prof. Pramila Goyal</td>
<td>CEE</td>
<td>Pollution Control &amp; Emissions Monitoring World Conference 2018</td>
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<tr>
<td>25.</td>
<td>Dr Vikas Sharma</td>
<td>ME</td>
<td>CMST-2018</td>
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<tr>
<td>26.</td>
<td>Prof HB Raghavendra</td>
<td>VC</td>
<td>2nd International Conference on Internationalization at Home …</td>
</tr>
<tr>
<td>27.</td>
<td>Prof HB Raghavendra</td>
<td>VC</td>
<td>Conference of Haryana State Education Council &amp; Haryana Vishwakarma Skill University</td>
</tr>
<tr>
<td>28.</td>
<td>Prof HB Raghavendra</td>
<td>VC</td>
<td>Conference on Developing World Class Universities in India …</td>
</tr>
<tr>
<td>29.</td>
<td>Dr Sunita Sharma</td>
<td>APS</td>
<td>Workshop on Smart Use of Technology</td>
</tr>
<tr>
<td>30.</td>
<td>Dr Bharati Arora</td>
<td>APS</td>
<td>University &amp; College Educators Conference …</td>
</tr>
<tr>
<td>31.</td>
<td>Prof. Prem Vrat</td>
<td>Pro-VC</td>
<td>Higher Education Technology Conference 2018</td>
</tr>
<tr>
<td>32.</td>
<td>Mr Abhishek Pratap Singh</td>
<td>ME</td>
<td>Externship</td>
</tr>
<tr>
<td>33.</td>
<td>Dr Anjali Garg</td>
<td>EECE</td>
<td>Workshop on FA products …</td>
</tr>
<tr>
<td>34.</td>
<td>Prof HB Raghavendra</td>
<td>VC</td>
<td>National Conference of Vice-Chancellors &amp; Directors of universities</td>
</tr>
<tr>
<td>35.</td>
<td>Prof. Prem Vrat</td>
<td>Pro-VC</td>
<td>National Seminar and Workshop on Operations Research and Mechanical Engineering</td>
</tr>
<tr>
<td>36.</td>
<td>Dr Shaveta Arora</td>
<td>EECE</td>
<td>Training programme on Simulink for System and Algorithm Modelling</td>
</tr>
<tr>
<td>37.</td>
<td>Dr Amit Arora, Mr Jagparvesh Dahiya and Mr Lalit Kumar</td>
<td>ME</td>
<td>Train the Trainer programme</td>
</tr>
<tr>
<td>38.</td>
<td>Ms Megha Kalra</td>
<td>CEE</td>
<td>Conference on Concrete Engineering and Technology 2018</td>
</tr>
<tr>
<td>39.</td>
<td>Prof. Swaran Ahuja, Dr Manoj Gopaliya, Dr Rekha Vij, Dr Rita Chhikara, Dr Jyoti Sahani, Ms Prerna Singhal and Ms Kanika Gupta</td>
<td>SOET</td>
<td>Workshop on Upcoming technologies in the domain of Computer Science and Engineering</td>
</tr>
</tbody>
</table>
Guest Lectures

- A lecture on 'Importance of Design Thinking in Automation' by Mr Sanjeev Rana, Senior System Analyst, VISA Worldwide Inc, Singapore, was organized by the Dept of CSE&IT on 3 Oct 2017.
- SOM organized a guest lecture by Prof J N D Gupta, College of Business, on 'Using Business Analytics to Enhance Operations and Supply Chain Performance' on 4 Oct 2017.
- A guest lecture was delivered by eminent industrialist Mr Sudam Maitra, Dy MD, IFB Automotive on 'Electro Discharge Machining (EDM) Process' on 4 Oct 2017 organized by the Dept of ME.
- SOL organized a special lecture on 'Framing of Charges in Criminal Trial' by Mr Paul Haridoss, Civil Judge, City Civil Court, Chennai on 6 Oct 2017.
- A lecture on 'Injection Moulding' was delivered by Mr Gajender Soni, AGM (Plant Head), M/s Poly Plastic Industries Pvt Ltd, Bawal, Haryana, organized by Dept of ME on 11 Oct 2017.
- The Dept of APS organized a lecture on 'Mathematics for Engineers' by Prof. RK Sharma, IIT Delhi on 11 Oct 2017.
- Dr Yoginder Talwar, Scientist E, National Informatics Centre, Ministry of Communications & IT, delivered a lecture on 'Public Key Infrastructure' on 12 Oct 2017 organized by the Dept of CSE&IT.
- Dr Sanjay Sen Gupta, Editor, Journal of Scientific & Industrial Research (JSIR) delivered a lecture on 'Research methodology and how to streamline the process for better research output,' organized by the Dept of ME, on 13 Oct 2017.
- Prof. Kannan Govindan, Professor and Head, Center for Engineering Operations Management; University of Southern Denmark delivered a talk on 'Achieving sustainability through circular economy in a supply chain perspective' on 13 Oct 2017 organized by the Dept of ME.
- Prof P C Jain, Advisor at SRCC, DU, delivered a lecture on career guidance 'Aspiration or Perspiration' on 16 Oct 2017 organized by SOM.
- Mr Vipul Bajaj, Assistant Director, MES, Chandigarh Zone, was invited by the Dept of CEE to deliver a talk on 'Core Civil Examination, Indian Engineering Services' on 23 Oct 2017.
- Dept of CSE&IT organized a lecture on 'Applications of Discrete Structures in Computer Science' which was delivered by Prof. BS Panda, Dept of Mathematics, IIT Delhi, on 24 Oct 2017.
- Prof. Karmeshu, Professor, School of Computer and Systems Sciences, JNU, ND, delivered a lecture on 'Uncertainty Modelling' organized by the Dept of CSE&IT on 25 Oct 2017.
- An expert lecture on 'Hydro-meteorological Extremes and Climate Adaptation in the Ganges Basin' was delivered by Dr Ramesh Anand Vaidya organized by the Dept of CEE on 26 Oct 2017.
- Dept of ME organized a guest lecture on 'Mechatronics and Robotics for Industrial Processes' Mr B K Bhayana, DGM Marketing, Delta Electronics India Pvt Ltd on 30 Oct 2017.
- SOM organized a guest lecture by Prof. Debi Saini, Emeritus Professor, IIM Ranchi, on 'Employee Engagement for Building a High Performing Organisation' was delivered on 6 Nov 2017.
- Mr Kuldeep Singh, Project Manager, Customers Project Execution, Nokia Networks, Noida delivered a lecture on 'Machine Learning' on 8 Nov 2017 organized by Dept of EECE.
- The Dept of CEE organized an expert lecture by Mr Nitin Goyal, DGM, Tendering Bidding and Arbitration, M/s Punj Lloyd India Ltd on 15 Nov 2017.
- A talk on ‘Unlocking Value through Creativity, Innovation and Entrepreneurship’ by Mr Vijay Rai, Managing Director (Asia Pacific and EMEA Markets), Saviour US Inc. was organized by SOM on 15 Nov 2017.
- A lecture on 'Heat Load Calculation for Air Conditioners' was delivered by Mr Sanjay Kumar Hans, Manager, Project Design Services & Technical Training, Emerson Cold Chain Centre, Gurugram on 16 Nov 2017 organized by the Dept of ME.
- SOL organized a lecture by Mr Danish Hasnain, Consultant (Legal) to NITI Aayog, on 'Career Orientation in Judiciary' on 21 Nov 2017.
- Dept of CSE&IT organized a guest lecture on 'DST at a Glance' by Dr HB Singh, Senior Scientist, Department of Science and Technology on 12 Dec 2017.
- SOL organized a guest lecture on 'Self-Performance Assessment Analysis' by Prof. (Dr) Kakoli Sen on 15 Jan 2018.
- A guest lecture on the topic 'My Aim to be a Judicial Officer' by Mr Alok Kumar Ranjan, Director Ambition Law Institute, ND was organized by SOL on 2 Feb 2018.
- Dept of CEE organized a guest lecture by Mr...
Thainswemong Choudhury, Structural Engineer & Doctoral Fellow (Erasmus Mundus Heritage) jointly at Politecnico Di Milano, Italy and IIT Guwahati on 'Structural Numerical Modelling' on 9 Feb 2018.

• The Dept of CSE&IT organized a guest lecture on ‘Cyber Security’ by Prof. Michael Hegarty, ITB Ireland, regarding studying in Ireland on 23 Feb 2018.

• A lecture on the topic Future Mobility-Electrical Vehicles was delivered by Dr Prabhjot Kaur, Director, Centre of Battery Engineering and EVs & Dy Director Reliance IITM Telecom Centre of Excellence, organized by the Dept of EECE on 7 March 2018.

• A lecture on ‘Requirement and Applications of Cryptography in Real World’ by Mr Tarun Yadav, Scientist C, DRDO, Scientific Analysis Group (SAG), Delhi was organized by the Dept of CSE&IT on 21 March 2018.

• SOL organized a lecture on ‘Expanding Horizons of Legal Profession’ by Mr Subhas Bhat and Ms Indra Bhat, Senior Advocates, Supreme Court of India, on 22 March 2018.

• Alumna Ms Pooja Mohnani (Class of 2001), Consultant, NextExitFuture GmbH, Heidelberg, Germany, delivered a lecture on ‘Human Imagination leading to technological innovation (5G)’ organized by the IEEE Society and Dept of EECE on 27 March 2018.

• Dept of APS organized a special talk on ‘Sustainable Energy – Opportunities through R&D’ by Prof. T Harinarayana, Advisor, GTU, Ahmedabad, on 29 March 2018.


• Dept of CSE&IT organized talks by Dr Niliufer Onder, Associate Professor, Michighan Technological University (MTU), USA, on Machine Learning on 3 April 2018 and ‘Musical Robotic Dance Freeze for Children’ on 6 April 2018.

• An expert talk was organized by the Dept of CSE&IT on Machine Learning and NLP for Recommendation Systems was delivered by Mr Nitendra, Senior Vice President, InfoEdge Pvt. Ltd on 8 April 2018.

• The Dept of EECE organised a guest lecture on ‘Technology and Entrepreneurship’ by Mr Sandeep Sharma, General Manager, Ericsson India Ltd on 10 April 2018.

• Alumnus Mr. Himanshu Mann, ECE (Class of 2011), Consultant, PwC, Australia, delivered a lecture on ‘Digital marketing and Data Analytics’ organized by the IEEE Society and Dept of EECE on 10 April 2018.

• SOL invited Prof. Anatole Boute, a Belgian national, Chinese University of Hong Kong, to deliver a talk on the topic ‘Clean Energy Law and the International Economic Regime’ on 10 April 2018.

• A lecture by Ms Rupali Gupta, Project Coordinator, Ecosystem Resource Management Pvt. Ltd., ND was organized by the Dept of CEE on 12 April 2018.

• A guest lecture on ‘From Corporate Social Responsibility to Corporate Sustainability’ by Mr Pravin Mallick, Environment Director for South Asia Markets, Tetra Pak India Pvt Ltd was organized by SOM on 17 April 2018.

• The Dept of CEE organized a lecture on ‘4G and movement to 5G’ by Mr Rajeev Saluja, Vice- President, Technology, Ericsson India Pvt Ltd on 20 April 2018.

• A guest lecture on ‘Computer Architecture with Internet of Things’ by Mr Devender Khari, DKOP Labs Pvt Ltd was organized by the Dept of CSE&IT on 20 April 2018.

• An expert lecture was organized by the Dept of EECE on ‘Soft Computing Techniques’ by Dr Saroj Kaushik, Professor, Dept of CSE, IIT Delhi on 25 April 2018.

• A lecture on ‘Cloud Computing Career Opportunities’ was delivered by Mr Ankur Gulla, GM Customer Experience Management Portfolio, Oracle Corporation, Gurugram on 26 April 2018 organized by Dept of CSE&IT.

• SOM organized a lecture on ‘Effective Leadership Styles’ by Mr Chander Prakash Arora, AED, Dalmia Bharat Ltd on 26 April 2018.

• Dept of CSE&IT organized an introductory talk on ‘Emerging Technologies – Virtual Reality(VR), Augmented Reality(AR) and Mixed Reality (MR) by MAGES Institute of Excellence, Singapore, on 27 April 2018.

• A special lecture was organized by Dept of CSE&IT on ‘Agile Software Development’ was delivered by Mr Varun Rao, Walker Digital Table Systems, Gurugram on 27 April 2018.

• Dr Pushpalatha Murthy, Associate Provost and Dean of the Graduate School, Michigan Technological University, USA delivered a talk on ‘Trends in Graduate Education in the US and World-Wide’ on 21 May 2018 organized by Dept of CSE & IT.

• Dept of CEE organized an expert lecture by Mr Hemant Kumar Rai, CEO and Director, SeaFaradays Defence Solutions Pvt Ltd on ‘Project Management its importance and application’ on 27 April 2018.

• CLL organized a lecture on ‘Gender Sensitivity’ by Mr Tanay Yadav, Prabhaav Learning Pvt Ltd on 1 May 2018.

• Mr Rajeev Bansal, Sr Consultant, TCS, delivered a lecture on ‘Importance of Financial Literacy in day to day life’ in FDP on 1 June 2018.

• Scientist Mr Sumeet Saurav, CEERI, Pilani, delivered a lecture on ‘Resource Constrained Machine Learning’ on 1 June 2018 organized by Dept of EECE.

• Ms Bhavna Bhira, Art of Living delivered a lecture on ‘Health and Happiness Program’ 5 June 2018 in FDP.
- Dr Rekha delivered a lecture on 'Science of Yogyopathy' on 3 Aug 2018 in FDP.
- Scientist Dr Sailesh Narayan Sharma, NPL, Delhi, delivered a lecture on 'Nanomaterials for Photovoltaic Applications' on 3 Aug 2018 organized by Dept of APS.
- Prof. Amitava Sen Gupta, Honorary Distinguished Professor & Mentor, RDIL, gave a presentation on 'Navigation using Indian Constellation NavIC' in FDP on 7 June 2018.
- Dr Diwakar Sukul, Chartered Psychologist, Founder and Director, KAMKUS Clinic, London delivered a lecture on 'Mind-Body Harmonics' to faculty and staff of the University on 7 July 2018.
- Hon'ble Mr Justice M Karpaga Vinayagam, former Chief Justice of the Jharkhand High Court, delivered a lecture on 'Constitution of India and Criminal Law' on 3 Aug 2018 organized by SOL.
- Dr Dhananjoy, DRDO, on Cyber Security, on 28 Aug 2018.
- Dept of CSE&IT organized a special lecture by Dr Kapil Chand Singhal, BR Refcool Gurugram, delivered a lecture on 'Science of Refrigerants' organized by ISHRAE Society on 24 Sept 2018.
- SOL in collaboration with DLSA, Gurugram, organised a lecture on 'Acid Attack' by Advocate Munmun, a practising advocate in the Supreme Court, High Court, Delhi, and District Court, Gurugram on 27 Aug 2018.
- Dept of CSE&IT organized a special lecture by Dr Sangeeta, Pre-Marriage Counsellor, on 'Pre-Marriage Counselling' on 27 Aug 2018.
- SOL organized a lecture by Dr Sangeeta, Pre-Marriage Counsellor, on 'Pre-Marriage Counselling' on 27 Aug 2018.
- Mr Kapil Chand Singhal, BR Refcool Gurugram, delivered a talk on past, present and future refrigerants organized by ISHRAE Society on 24 Sept 2018.

## Industrial Visits

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Department</th>
<th>Industry</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CSE</td>
<td>MACE, Manesar, Gurugram</td>
<td>14 - Oct - 17</td>
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<tr>
<td>2</td>
<td>ME</td>
<td>Emerson Cold Chain Centre, Gurugram</td>
<td>16 - Oct - 17</td>
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<tr>
<td>3</td>
<td>SOM</td>
<td>Yakult Danone India Pvt Ltd, Sonepat</td>
<td>11 - Oct - 17</td>
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<tr>
<td>4</td>
<td>ME</td>
<td>Indian Meteorological Department, New Delhi</td>
<td>10 - Dec - 17</td>
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<td>5</td>
<td>ME</td>
<td>Werardt Systems Pvt Ltd, Gurugram</td>
<td>26 - Dec - 17</td>
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<tr>
<td>6</td>
<td>ME</td>
<td>M/s Asahi India Glass Ltd (AIS), Bawal on 27Dec 2017</td>
<td>27 - Dec - 17</td>
</tr>
<tr>
<td>7</td>
<td>EECE</td>
<td>National Institute of Solar Energy</td>
<td>15 - Jan - 18</td>
</tr>
<tr>
<td>8</td>
<td>ME</td>
<td>Goenka Electric Motor (GEM) Vehicles Pvt Ltd, Sonipat</td>
<td>01 - Feb - 18</td>
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<td>9</td>
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<td>Goenka Electric Motor (GEM) Vehicles Pvt Ltd, Sonipat</td>
<td>01 - Feb - 18</td>
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<tr>
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<td>ME</td>
<td>M/s Asahi India Glass Ltd, Bawal</td>
<td>06 - Feb - 18</td>
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<td>AutoExpo 2018</td>
<td>14 - Feb - 18</td>
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<td>12</td>
<td>EECE</td>
<td>Enkay Solar Power Plant, GD, Noida</td>
<td>20 - Feb - 18</td>
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## Industrial Visits

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<thead>
<tr>
<th>S.No.</th>
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<tr>
<td>13</td>
<td>EECE</td>
<td>Maruti Suzuki, Gurugram</td>
<td>26 - Feb - 18</td>
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<td>14</td>
<td>SPIE Society &amp; EECE</td>
<td>Napino Automobiles and Electronics Ltd, IMT, Manesar</td>
<td>26 - Feb - 18</td>
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<tr>
<td>15</td>
<td>CSE&amp;IT</td>
<td>Kellton Pvt Ltd, Gurugram</td>
<td>05 - Mar - 18</td>
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<td>16</td>
<td>EECE</td>
<td>Centre for Applied Research in Electronics (CARE) at IIT Delhi</td>
<td>08 - Mar - 18</td>
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<tr>
<td>17</td>
<td>EECE</td>
<td>66 KV Grid Substation at Sector 23 A, Gurugram</td>
<td>10 - Mar - 18</td>
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<tr>
<td>18</td>
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<td>National Technical Research Organization</td>
<td>16 - Mar - 18</td>
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<td>66 MGD Water Treatment Plant (WTP), Chandu Budhera, Gurugram</td>
<td>28 - Mar - 18</td>
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<td>21</td>
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<td>Central Electronics Ltd (CEL), Sahibabad</td>
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<td>04 - Apr - 18</td>
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<td>Yakult Danone (I) Pvt Ltd</td>
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<td>25</td>
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<td>Hitachi Chemical India Pvt Ltd</td>
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<td>12 - Jun - 18</td>
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<td>Bharat Sanchar Nigam Limited (BSNL), Gurugram</td>
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<td>Reliance Jio, Gurugram</td>
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<td>Mitsubishi Electric India (MEI) Pvt Ltd</td>
<td>9 - 13 July 2018</td>
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<td>Fidelity International Gurugram</td>
<td>10 - Jul - 18</td>
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<td>Exicom Power Solutions, Gurugram</td>
<td>13 - Jul - 18</td>
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<td>Sparta Telecom, ND</td>
<td>13 - Jul - 18</td>
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<td>Steelbird Tech Info, ND</td>
<td>13 - Jul - 18</td>
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<td>35</td>
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<td>Nextech Solutions India Pvt Ltd, ND</td>
<td>13 - Jul - 18</td>
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<td>36</td>
<td>CSE&amp;IT</td>
<td>Data Packet, ND</td>
<td>31-Jul-18</td>
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</table>
## Industrial Visits

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<tr>
<td>37</td>
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<td>DRDO, MetCalfe House, Delhi</td>
<td>17 - Jul - 18</td>
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<td>43</td>
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<td>ALP Nishikawa Pvt Ltd</td>
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<td>Groz Engineering Tools (P) Ltd., Gurugram</td>
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<td>20 - Jul - 18</td>
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<td>54</td>
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<td>Algofocus Technologies OPC Pvt Ltd, Gurugram</td>
<td>20 - Jul - 18</td>
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<tr>
<td>55</td>
<td>CSE&amp;IT</td>
<td>Operation Control Center (Signalling and Telecom Dept)</td>
<td>20 - Jul - 18</td>
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<td>56</td>
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<td>20 - Jul - 18</td>
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<td>CSE&amp;IT</td>
<td>Maruti Suzuki India Ltd, Gurugram</td>
<td>20 - Jul - 18</td>
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<td>59</td>
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<td>20 - Jul - 18</td>
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<td>Optum, UnitedHealth Group Information Services Pvt Ltd</td>
<td>21 - Jul - 18</td>
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<td>61</td>
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<td>62</td>
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<td>26-Jul-18</td>
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<td>66 KV Grid Substation, Sector 23 A, Gurugram</td>
<td>31-Jul-18</td>
</tr>
</tbody>
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Research Publications

November 2017 – October 2018

NOV 2017

**Journals - International**


**Conference Presentations - National**

- Praveen Kumar (2017) ‘Victims of Global Climate Change with Reference to Recent Natural Disaster’, National Conference on Climate Change and Sustainable Development: Perspectives and Transformational Challenges, Department of Law, University of Jammu and National Law School of India University, Bengaluru, SOL2017C004.

**DEC 2017**

**Journals International**


**National**


**Book Chapters International**


**Conference Proceeding - International**


**Conference Presentations - International**

Advances in Polymer Science and Technology, Indian Institute of Technology Delhi, APS2017C016.


JAN 2018

Books - International


Book Chapters - International


Journals

International


National


Conference Proceedings - International


Conference Presentations - International

- Deepika* and Hukum Singh (2018) 'Study Of Optical Properties Of Se80-xTe20Bix (x = 0, 3, 9) Thin Films'; ICSEM 2018, Material Research Laboratory, School of Basic Sciences & Research, Sharda University, Greater Noida, India, APS2018C001.

- Manju Dabass, Sharda Vashisth* and Rekha Vig (2017) 'Effectiveness of region growing based segmentation techniques for various medical images-A study'; REDSET 2017, GD Goenka University, Gurugram, ECE2017C002.


- Balwinder Singh (2017) 'Efficacy of International Refugee Law in Dealing with Displaced Populations: A Study in Indian Perspective', 18th APG Meet & International Conference on “Re-envisioning Globalization,Development and New World Order: Perspectives from Developing Countries”, School of Arts and Language, Lovely Professional University, SOL2017C008.

FEBRUARY 2018

Journals

International

- Vaibhav Mishra and Tejpal Singh Chundawat* (2018) 'Pd Catalyzed N1/N4 Arylation of Piperazine for Synthesis of Drugs.'


Conference Proceedings - International


Conference Presentations - International

- Amarpreet Singh, Sunita Sharma, Divyansh Mahajan, and Deepika Gaur (2018) ‘Zinc Oxide Nanoparticles As Nanophosphors For Bioimaging Applications’, Poster Presentation, Material Research Laboratory, School of Basic Sciences and Research, Sharda University, Greater Noida, India, APS2018C003.

MARCH 2018

Book Chapters - International


Journals

International

National

Conference Proceedings
International

Conference Presentations
International

National

Journals
International

Book Chapters- International
Transitions on Telecommunications, ECE2018J003.


National


Conference Proceedings

International


Conference Presentations

International


National


MAY 2018

Book - International


Book Chapters - International


Journals

International


National


Conference Proceedings - International

- Deepika* and Hukum Singh (2018) 'Study of temperature dependent electrical properties of Se80-xTe20Bix (x = 0, 3, 6) glasses', AIP Conference Proceedings, pp. 090005-1-090005-5, APS2018P009.


Conference Presentations - International


National


JUNE 2018

Book Chapters - International


Journals

International


National


Conference Proceedings - International


• Jyoti Dabas, Rekha Vig* and Shaveta Arora (2018) 'Comparative Analysis of Noise Filtering Techniques for Medical Images in
Fuzzy Domain', 5th International Conference on 'Computing for Sustainable Global Development', IndiaCom 2018, pp. 4668-4673, ECE2018BP06.


National


Conference Presentations - International


- Rekha Vig and Sachin Singh Chauhan (2018) 'Speech Compression using Multi-Resolution Hybrid Wavelet using DCT and Walsh Transforms', International Conference on Computational Intelligence and Data Science ICCIDS-18, ECE2018C005.


**Conference Proceedings**

**International**


• Arpita Nagpal* and Vijendra Singh (2018) 'A Feature Selection Algorithm Based on Qualitative Mutual Information for Cancer Microarray Data', Procedia Computer Science (ICCCDS 2018), pp. 244-252, CSE2018P004.


**AUGUST 2018 Journals**

**International**


Conference Proceedings - International


Conference Presentations

International


National


SEPTEMBER 2018 Journals

International


National


Conference Presentation

National


OCTOBER 2018

Book Chapter - International


Journals

International


Conference Presentation - International
