NCU
THE NORTHCAP UNIVERSITY ™
NAAC ACCREDITED

ANNUAL REPORT
2017

ENGINEERING MANAGEMENT LAW

OUR WORLD
OF
EXCELLENCE

Where Education Bridges The Gap Between
The Classroom and The Real World

Contents

Our World of Excellence

The Chief Guest

Hon'ble Prof. Kaptan Singh Solanki
Governor of Haryana

हरियाणा, राजभवन,
चण्डीगढ़ ।

**HARYANA RAJ BHAVAN,
CHANDIGARH.**

Message

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

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

(Prof. Kaptan Singh Solanki)

Programmes

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

The following programmes were offered for the session 2016-17:

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)
- BA Eco (Hons)
- MBA

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

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

Quality Benchmarks

nirf	The University ranked in rank band 101 to 150 in the NIRF Ranking released on 3rd April 2017 by MHRD
	Established under Haryana Private University Act No. 25 of 2009 (Third Amendment)
	Recognised by the University Grants Commission, Govt. of India, under Section 2(f) of the UGC Act 1956, and empowered to grant degrees under Section 22 of the Act.
Bar Council of India	Recognised by the Bar Council of India, Govt. of India
	Recognised by the Bar Council of India, Govt. of India
T-4402 NABL Accredited Lab	The NorthCap University Testing Centre established as per ISO/IEC 17025-2015, is NABL Accredited for the Mechanical Testing of Building & Construction Materials
ASIC ACCREDITED 2012 - 2016	Accredited by Accreditation Services for International Colleges (ASIC), United Kingdom, in the category of 'Premier' Universities, 2016-2020
	Member of Association of Indian Universities
The Association of Commonwealth Universities	Member of the Association of Commonwealth Universities
UNIVERSITY OF THE YEAR - 2016	Recognized as the University of the Year 2016 for Value based Education by Higher Education Review-Dec 2016
ASQ AMERICAN SOCIETY FOR QUALITY	Institutional Member of American Society for Quality (India)
isep	Member of International Students Exchange Programme
IBM	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 & MBA programmes
iNURTURE Education Solutions	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
egovcampus	Recognised as the BEST egovcampus
GHRDC	School of Law, Ranked No. 5 amongst Top Law Schools of Eminence, All India and No.2 in North India by GHRDC Law Schools Survey 2016
MBA UNIVERSE	School of Management NCU Rank No. 61 amongst All India Top 100 in Business School Ranking for 2016-17 by MBA Universe

University at a Glance

Nature of University	:	Multidisciplinary, Co-educational University offering Under Graduate, Post Graduate and Doctoral Programmes in Engineering, Management, Law, Applied Sciences and Humanities
Established	:	1996
By	:	Educate India Society
Located	:	In the industrial heartland of Gurugram, Haryana (located 7km from Indira Gandhi International Airport, New Delhi)
Campus Address	:	Sector 23-A, Gurugram, Haryana, India, Tel.: +91-124-2365811-13 Email: ncu@ncuindia.edu
Chancellor	:	V Daulet Singh
Pro-Chancellor	:	Prof. Prem Vrat
Vice-Chancellor	:	Prof. HB Raghavendra
Registrar	:	Col. Bikram Mohanty (Retd.)
Student Population	:	Under Graduate: 2831, Post Graduate: 169 Doctorate 140
Gender Profile	:	Male - 70%, Female - 30%
Faculty	:	155
Scholarships	:	Merit cum means and Merit based Scholarships awarded
Admission Criteria	:	On Merit in the All India Common Entrance Exams:

BTech - 10+2 (English Medium) examination conducted by Central Board of Secondary Education or equivalent examination from a recognized board in Science stream with an overall aggregate of minimum 60% marks. Additionally, the applicant should have secured not less than 50% marks in each of the subjects given hereunder:
(1) Maths (2) Physics (3) English (4) Chemistry

BSc Maths (H) - Minimum 55% marks in best four subjects (with English and Mathematics as compulsory subjects) at the 10+2 level from any recognized Board with atleast 55% marks in Mathematics. Physical education will not be counted amongst best four subjects.

BSc Physics (H) - Minimum 55% marks in best four subjects (with Physics and Mathematics as compulsory subjects) at the 10+2 level from any recognized Board with atleast 55% marks in Physics. Physical education will not be counted amongst best four subjects.

MSc Maths - Minimum 55% marks (or equivalent CGPA) in the aggregate in BSc or equivalent degree (with compulsory 3 papers of Mathematics in annual system or atleast 4 papers of Mathematics in semester system).

BCom (H) - Minimum 55% in 10+2 best of four. Marks in English to be necessarily included in best of four subjects. Minimum 50% marks in Mathematics to be necessarily included in best of four subjects.

BA Eco (H) - Minimum 55% in 10+2 best of four. Marks in English to be necessarily included in best of four subjects. Minimum 50% marks in Mathematics to be necessarily included in best of four subjects.

BBA - Minimum 55% in 10+2 best of four subjects. Marks in English to be necessarily included in best of four. Marks of Physical Education NOT to be included in computing best of four subjects.

MTech- BE/BTech/MCA/MSc (Computer Science, IT, Electronics, Software Engineering, Mathematics, Statistics, Physics) with minimum 55% marks aggregate marks

MBA -1) Minimum 50% in Bachelors Degree
2) Minimum 50% ile score in CAT/GMAT/GRE/XAT/NMAT/SNAP/ CMAT/ ATMA/MAT (September 2015 – May 2017 only) OR
3) The NorthCap University Entrance Test (NMET)

BBA-LLB (H) - CLAT/LSAT/AILET / NCU-LET with 55% marks in 10+2 aggregate and 50% marks in English

LLM - LLB degree

PhD in Engineering, Management, Law, Sciences & English

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 al.*
3. *Passion for quality and excellence*
4. *Quest for innovation*
5. *Leadership and Team Spirit*
6. *Autonomy with Accountability*
7. *Perseverance*

The Chief Guest

Hon'ble Prof. Kaptan Singh Solanki
Governor of Haryana

Prof. Kaptan Singh Solanki is the Hon'ble Governor of Haryana, who is also a Visitor of The NorthCap University. Prof. Kaptan Singh Solanki was born in 1939 in Madhya Pradesh. He is also a great academician. He studied at Vikram University, Ujjain, P.G.B.T. College, Ujjain and Maharani Luxmibai College, Jiwaji University, Gwalior. He served as teacher at Banmor in Morena district from 1958-1965 and as Professor at P.G.V. College Gwalior from 1966-2000. He was elected to the Rajya Sabha in August 2009 and in the same year became a member of the Committee on Food, Consumer Affairs and Public Distribution. In July 2010, he also became an active member of the Consultative Committee for the Ministry of Youth affairs and Sports. In April 2012 he was re-elected to the Rajya Sabha and in the same year he also became a member of the Advisory Committee, Ministry of Power. He has been actively involved in encouraging and inspiring students at both school and college level. He is also involved in social work and has always strived for the upliftment of the society. He is a member of the India-Cuba Parliamentary Friendship Group and India-Bosnia and Herzegovina Parliamentary Friendship Group. Since 27 July 2014, he is the Governor of Haryana.

Prof. HB Raghavendra
Vice-Chancellor

Vice-Chancellor's Address

Hon'ble Chief Guest, Prof. Kaptan Singh Solanki, Governor of Haryana; Chancellor, Shri V Daulet Singh; Members of the Governing Body, Shri Avdhesh Mishra, Shri 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 afternoon to everybody, and thank you for being here with us.

To begin with, I wish to thank our Chief Guest, Hon'ble Prof. Kaptan Singh Solanki 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 Sir, to the Sixth Annual Convocation of the University.

The University has come a long way since its inception in 1996, continuously evolving and challenging conventions. In a span of a few years, we have grown to be one of the foremost educational institutions in North India. The NorthCap University has been 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 has reaccredited the University in the category of 'Premier' Universities with 'Commendable' Grades, for 2016-2020. NCU has been ranked among the top 150 universities under National Institutional Ranking Framework (NIRF) by the Ministry of HRD, Govt. of India in April 2017. 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 2017of 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 2017.

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. We are a young and forward looking multidisciplinary university and strongly believe that the leaders of tomorrow not only require a deep understanding of their chosen field but should have knowledge of other areas also. We have adopted global standards of learning and have a talented pool of highly qualified teachers, mentors and guides to ensure that our students learn with the best. We have developed a collaborative environment conducive to learning, exposure to the best international practices and promotion of innovation and creativity that has enabled the University to be recognized as a premier centre of higher learning. We support research that is driven by curiosity and which can have an immediate and measurable impact on industry and the society. A university can grow successfully only when research and teaching mesh together seamlessly - one without the other is incomplete.

We have a well-equipped Central Research Facility and all labs and workshops have been upgraded with the latest equipments. 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 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. Currently 138 doctoral students are registered with the University to carry out their doctoral dissertation research work and fifteen scholars are being awarded PhDs this year.

To modernize and internationalize the curricula, enrich learning outcomes and enhance employability, the University introduced new programmes and undertook a major exercise in Curriculum Development and Course Design. This major exercise is providing students the opportunity to develop a wider range of transversal skills, including critical thinking, analytical reasoning, problem-solving and collaborative working. Emphasis is on industry-integration and course-design in tune with industry needs. Leading industries such as Delta Power Solutions, IBM, Mitsubishi, and others provide cutting edge technology courses in the more promising areas of the future. We help our students understand how to put theory to practice and align them as per industry demands. Practical activities in laboratories and internship in industries offer opportunities to work in various settings that help develop work relationships plus practical experience in core subject areas before graduating.

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. We have been able to achieve an enviable placement record, both nationally and internationally of 92% of eligible students of Class of 2017 being placed. To enhance placements, during the reporting year the University has tied up with the Professional Assessment Agency 'Aon Co-cubes' for scientific third party assessment of the employment potential of our students.

The NorthCap University has expanded and further strengthened foreign partnership opportunities to prepare our students to be globally competitive. Under our student exchange programme students are studying at ITB, Dublin, Ireland. NCU has collaborated with the University of Regina, Canada for the student exchange programmes in MTech, for ECE and CSE students. The Agreement with the Michigan Technological University (MTU), USA for the 3+1+1 programme has been extended to all the Schools and Departments in the University. This year the University has collaborated with the University of Dayton, Ohio, USA to undertake joint collaborative research, as well as student and faculty exchange. The University has a Partnership Agreement with the American Society of Civil Engineers (ASCE), Reston, Virginia (US) for conducting ASCE's webinars and for holding conferences and educational activities at NCU.

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 among others. The University has established the Incubation Centre (MJCEI) with external support to advance research and 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 them to meet their entrepreneurial dreams.

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; vehicle pollution check centre etc. To increase its green foot print, a vibrant and green garden is maintained. For the16th 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 cofounded several successful companies.

We have strived to prepare you to deal with (and even get inspired by) pressing societal concerns and equipped you with crucial 21st century skills needed to innovate, lead and solve the grand challenges of today's complex and rapidly changing world but knowledge is not static - it is a dynamic concept. Therefore, it is imperative for all of us to continue the process of learning and skill upgradation. Please do not treat the degrees that are being conferred on you as the end of a journey. It is in fact a beginning on the path of seeking knowledge.

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 to current students.

We wish you every success in your chosen career and hope that you will keep in touch with us and support our development in the years to come. 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

Governing Body

Mr V Daulet Singh
Chancellor

Prof. HB Raghavendra
Vice-Chancellor

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

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Principal Secretary
Govt. of Haryana
Higher Education Dept.

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Mrs Kavita Mishra
Founder and Member
Governing Body

Mr Avdhesh Mishra
Founder and Member
Governing Body

Mr Rajesh Marwaha
Chartered Accountant
and Member
Governing Body

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Mohanty (Retd)**
Registrar,
Member Secretary

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Prof. HB Raghavendra
Vice-Chancellor

Mr Avdhesh Mishra
Founder and Member
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Mr Shiv Saran Mehra
Founder and Member
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Principal Secretary
Govt. of Haryana
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Founder and Member,
Governing Body

Mr Z Daulet Singh
Founder and Member
Governing Body,

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Director,
School of Engineering
and Technology

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Professor & Dean
School of Management

Prof. Swaran Ahuja
Dean (Academics)

Dr Phool Singh
Deputy Dean,
Academics,
Undergraduate
Studies

Dr Ambika Devi
HOD,
Department of
Applied Sciences

**Col. Bikram
Mohanty (Retd)**
Registrar,
Member Secretary

Academic Council

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Pro-Chancellor.
Professor of Eminence
& Chief Mentor

Prof. HB Raghavendra
Vice-Chancellor

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Director,
School of Engineering
and Technology

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Professor & Dean
School of Management

Prof. Swaran Ahuja
Dean (Academics)

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VC, Rajiv Gandhi National
University of Law, Punjab

Dr Payal Khurana
Officiating Head, Centre for
Languages Learning &

Dr Anil Kumar Mishra
Head,
Department of Civil &
Environmental
Engineering

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

Dr Anjali Garg
Dy Dean,
PhD Programme

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

Dr Ambika Devi
HOD,
Department of
Applied Sciences

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Scientist F, HOD,
& Chief Vigilance Officer,
DSIR, Ministry of Science
& Technology, New Delhi

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Professor,
MDI, Gurgaon

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

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Deputy Dean,
Academics,
Undergraduate
Studies

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Head, School of Law

Dr Bharti Arora
Dy Dean,
Research Development
and Industrial Liaison

Dr Sharda Vashisth
Head, Department of
Electrical, Electronics
and Communication
Engineering

**Col. Bikram
Mohanty (Retd)**
Registrar,
Member Secretary

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Chairman, Max New York
Life Insurance

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Former Vice-Chancellor,
Delhi Technological
University, New Delhi

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Former Chairman,
Shell Companies
in India

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Visnova Solutions, Noida
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IIT Kharagpur,
SS Bhatnagar Awardee

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New Delhi

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

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

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

Prof. MK Jain
Ex- Dy. Director
IIT Delhi & Professor of
Mathematics
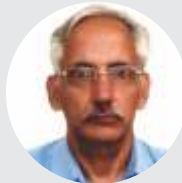
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Distinguished Research
Professor, NCU
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Fellow, IIT Delhi
SS Bhatnagar Awardee

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

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

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

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CEO & MD,
Nucleus Software
Exports Ltd, Noida

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Vice Chancellor
National Law University,
New Delhi
President, AIU

Dr PS Rana
Chairman & MD,
Pathera Developers &
Former Chairman & MD,
HUDCO

Dr Krishan Kumar
Executive Advisor,
Maruti Automotive
Centre for Excellence

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

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

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

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

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

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

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DMRC, New Delhi

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Professor
IIT, Delhi

Mr Satish Kaura
Padma Shri
Chairman
Samtel Color Ltd

Prof. PB Sharma
Vice-Chancellor
Amity University,
Gurgaon

Mr Bunty Peerbhoy
Director,
Maa Group Holdings

Faculty Mentors

Prof. Prem Vrat
BTech. (Hons.), MTech
IIT Kharagpur
PhD-IIT Delhi
Doctor of Engineering
(Honoris Causa)
FNAE, FNASc.,
FWAPS, FISTE, FIIIE
Chief Mentor

Dr PS Rana
Chairman & MD,
Pathera Developers &
Former Chairman & MD,
HUDCO

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

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

Professor Pushpesh Pant
PhD (JNU)
Dean & Professor,
School of Law
Padam Shri Awardee

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

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

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

Prof. B K Das
BTech (IIT Kharagpur),
MS (Illinois), PhD (Illinois)
FNASc, FMAS
Formerly Dean-RDIL,
The NorthCap University,
Gurgaon

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

Dr Rajesh Chadha
Honorary Distinguished
Research Professor,
Senior Fellow-National Council
of Applied Economic Research

Prof. Mohan Lal Kothari
BTech, MTech, PhD
Emeritus Fellow, Department of
Electrical Engineering, IIT Delhi

Mr Harbans Lal Bajaj
BSc, MSc FNAE, FIE, FIET,
FIEEE, FAIMA
Independent Director, PTC Ltd.
Formerly: Appellate Tribunal for
Electricity; Chairman,
Central Electricity Authority &
ex-officio Secretary Govt. of India

Dr Yogendra Pal Anand
PhD
FNAE, MSESI, FIPWE,
FIRT, FIIBE, FIEI

Prof. (Ms) Ajit Iqbal Singh
PhD, University of
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BA(H), MA (Maths),
University of Delhi
Honorary Scientist, Indian
National Science
Academy, Delhi

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.

Dr Surendra Pal
BSc– PCM, MSc - Physics,
MSc (Technology) –
Electronics; PhD President,
Institute of Electronics and
Telecommunication Engineers (IETE),
Sr Advisor, ICT Ahmedabad University,
Distinguished Visiting Professor
INAE India and IEEE USA

Prof. K M Mital
BSc, BE (Mech),
ME (Prod.), PhD in
Industrial Engineering
and Management

Prof. Satya Sheel
B Engg. (EE);, M Engg. (ECS);
PhD (Systems & Electrical Engineering)
SMIEEE, FIE, LMISTE
Former Professor, EEE &
Instrumentation Engg.,
MN National Institute of
Technology, Allahabad.

Prof. Manoj Kumar Sinha
PhD, JNU Delhi
LLM, University of Nottingham (UK)
Director of Indian Law Institute,
New Delhi

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

Prof. B Chandra
PhD, University of Delhi
Former Professor, Dept of Maths,
IIT Delhi

Chief Guests
at Convocations

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

"We should not give up and we should not allow the problem to defeat us."

Dr APJ Abdul Kalam

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

Our World
of Excellence

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

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

Prof. D P Agrawal, Chairman Union Public Service Commission, Govt. of India, Chief Guest, Convocation-Class of 2013

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

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 Karan Singh presented the awards and Certificates of Excellence to the students - Convocation, Class of 2014

Hon'ble Mr Justice AK Patnaik, Judge, Supreme Court of India, Chief Guest, Degree Distribution Ceremony-Class of 2012

Dr Bibek Debroy, Padma Shri Chairman, PM's Economic Advisory Council Chief Guest, Convocation-Class of 2016

Institutional Meetings

Members of the 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, further re-furbishing quality systems, processes and practices, to make them current and impactful, with an eye on long-term outcomes.

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 2017 was marked by some remarkable initiatives directed to the achievement of our designated mission. New programmes, online courses from universities across the world and MOOCs run by UGC and courses in promising areas of the future were introduced. A multidisciplinary Mechanics Lab was set up at the University by Beijing Wave Spectrum, China which has enhanced the research image of the University. Students completed the PGDM course

from the Centre for Leadership, established in 2016, and have been placed with leading multinationals. 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	Board of Management	Governing Body
28 April 2017	31 March 2017	26 May 2017
24 May 2017	19 July 2017	25 August 2017
23 September 2017	29 September 2017	30 November 2017

Academic Advisory Board

The Academic Advisory Board is the think tank and the appellate body comprising of eminent educationists and industry experts drawn from across the country. They come together each year for an interaction focused on development directions, exchange of relevant ideas, guidance, monitoring and to discus and advise on strategic options.

The Sixth Academic Advisory Board Meeting of the University was held on 18 February 2017 to review the progress made during the year and advise on future plans for the growth and development of the University. Hon'ble members exchanged views, presented new and refreshing ideas, and advised on actions to improve the academic life and other essential deliverables so that the University could achieve its ultimate aim of attaining a position of pre-eminence. They discussed key issues such as:

* The Strategic Plans for the Schools and Departments
* Road map for improvement of the curriculum
* Introduction of new programmes
* Annual Placements and Third Party Assessment Tests

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):

1. *Prof. Swaran Ahuja, Sr Professor and Dean Academics - The NorthCap University*
2. *Prof. Kehar Singh, Ex-Dean & Emeritus Fellow, Indian Institute of Technology, Delhi*
3. *Mr Amitabh Jhingan*
4. *Prof. Ravindra Ojha, Director, SOET - NCU*
5. *Prof. Amitava Sen Gupta, Honorary Distinguished Research Professor, NCU*
6. *Dr Girdhar J Gyani, Director General, Association of Healthcare Providers (India)*
7. *Prof. Pradeep Kumar, Professor, Indian Institute of Technology, Roorkee*
8. *Prof S K Joshi, Padma Shri, Former Director General - CSIR, New Delhi*
9. *Prof. Prem Vrat, Pro-Chancellor, Prof. of Eminence & Chief Mentor – NCU*
10. *Mr Shiv Saran Mehra, Founder & Member, Governing Body NCU*

11. *Mr Avdhesh Mishra, Founder & Member, Governing Body – NCU*
12. *Dr Krishan Lal, FNA, Former Director - NPL, New Delhi*
13. *Prof. (Dr) KL Chopra, Padma Shri, Former Director – Indian Institute of Technology, Kharagpur*
14. *Prof. Karmeshu, Professor & Dean, School of Computer & Systems Sciences - JNU, New Delhi*
15. *Prof. AS Brar, Vice Chancellor, Guru Nanak Dev University, Amritsar, Punjab*
16. *Dr Devi Singh, Vice-Chancellor, FLAME University, Pune*
17. *Prof. SK Kak, Founder Vice Chancellor, Mahamaya Technical University, Noida*
18. *Brig. SK Sharma (Retd), Pro Vice-Chancellor & Officiating Vice-Chancellor, NCU*
19. *Mr B K Gupta, Director, School of Professional Attachment – NCU*
20. *Col. Bikram Mohanty (Retd), Registrar – NCU*

Rankings

- The University ranked in rank band 101 to 150 in the NIRF Ranking released on 3rd April 2017 by MHRD.
- The NorthCap University was ranked No. 1 Engineering College in Haryana and No 6 in All India Top Engineering Colleges of Eminence in the rankings of CSR-GHRDC, July 2017.
- The University has been ranked No. 2 in Delhi/NCR and No. 58 All India in a survey of India's Top 100 Professional Colleges by Outlook in their June 2017 issue.
- The NorthCap University was ranked among the Top 100 Management Schools in India, including IIMs, by Outlook 'India's Best B-Schools Survey 2017' published in Outlook news magazine October 2017 issue.

- Recognized as the University of the Year-2016 for Value Based Education by Higher Education Review in their Dec 2016 issue.
- NCU's School of Law has been recognized as the Best Emerging Law School in India in the survey conducted by Careers 360 in January 2017.
- The School of Engineering and Technology of The NorthCap University was ranked in 'AAA' category in 'India's Best Engineering Colleges' survey conducted by Careers 360 published in April 2017.
- NCU's School of Law has been awarded '3rd Rank in the Northern Region' and '8th Rank amongst Top Law Schools of Eminence All India' in the National Law Schools Survey 2017 conducted by Global Human Resource Development Centre (GHRDC), New Delhi.

Recognitions and Awards

Prof. Prem Vrat, Pro-Chancellor, NCU was conferred the Lifetime Achievement Award by the Indian Institute of Industrial Engineering (IIIE), New Delhi at the inaugural award function of IIIE's 59th National Convention at Aurangabad on 14 September 2017.

A respected America based international magazine ORMS Today featured Prof. Prem Vrat, Pro-Chancellor, NCU receiving the coveted MC Puri Memorial Award 2016 which was conferred on him by the Operational Research Society of India (ORSI) at the 49th Annual Convention of the Operational Research Society of India, in their June 2017 issue.

Dr CR Prasad, distinguished Faculty Mentor at The NorthCap University was honoured with the Petrotech 2016 Lifetime Achievement Award (Category - Midstream) on 7 December 2016.

Prof. KL Chopra, Padma Shri, Member, Academic Advisory Board and Faculty Mentor, NCU was conferred the Honorary DSc by Jadavpur University, Kolkata, at its convocation held on 24 December 2016.

IIIE confers Lifetime Achievement Award on Prof. Prem Vrat

Dr Amit Srivastava, Associate Professor& Head, Department of CEE was conferred the title of Professional Engineer (PE) by the Engineering Council of India (ECI) in January 2017.

Dr Ashwini Sharma, Associate Professor, Dept of ME was selected as a Panel Member of the National Workshop on Design Clinic Scheme for MSMEs held on 28 and 29 December 2016. He has been nominated a member of the Editorial Board of the Imperial Journal of Eco Friendly Technologies.

Mr Praveen Singh, Assistant Professor, Dept of Mech Engg was awarded the 'Gold Medal' at the 11th Convocation of Malaviya National Institute of Technology, Jaipur for MTech in Metallurgical & Materials Engineering.

Dr Vijender Singh, Associate Professor, Dept of CSE&IT, chaired a session on 'Computational Intelligence in Data Science and Big Data 2017' at the IEEE 4th International Conference on Computing for Sustainable Global Development, New Delhi from 1-3 March 2017. He is appointed as Guest Editor, Intelligent Data Mining and Machine Learning, Journal of Organizational and End User Computing (JOEUC), IGI Global, USA.

Dr Vijendra Singh has been appointed member of the Advisory Committee, International Conference on Emerging Trends in Expert Applications and Security, to be held from 17-18 February 2018 at Jaipur.

Ms Jyotika Pruthi, Assistant Professor, Dept of CSE&IT has been included in the 2018 edition of

Marquis Who's Who in the World, the best-known and well-respected biographical resource featuring world's most accomplished individuals since 1899.

Ms Jyotika was felicitated with the 'Young Women's Achievers Award' on International Women's Day by Gurgaon First and Artemis Hospital, Gurugram for her contribution to literature. She was recently interviewed by an international Australian magazine 'Ramona Magazine for Girls' and shared her experiences as a professor at The NorthCap University.

Dr Hukum Singh, Associate Professor, Dept of APS was appointed as a Registered Reviewer of Advances in Science, Technology and Engineering Systems Journal (ASTES) on 21 May 2017. Dr Hukum Singh presented his research paper on the topic 'Asymmetric Optical Double Image Encryption using Vortex Phase Mask in the Gyrator Transform Domain' in the 24th Congress of the International Commission of Optics (ICO-24) held from 21-25 August 2017 in Tokyo, Japan.

Ms Jiveta Chaudhary, Assistant Professor, SOM received the Gold Medal and the 'Best Student of The Year – 2016' award for topping and securing First Rank in Diploma in Training & Development,

Jyotika Pruthi

Dr Hukum Singh

Indian Society for Training and Development (ISTD), New Delhi.

Dr Jagdeep Kaur, Assistant Professor, Dept of CSE&IT received a Certificate of Recognition for Outstanding Service in the Technical Programme Committee of Springer's International Conference on Information, Communication and Computing Technology (ICICCT-2017) held at JIMS New Delhi in July 2017.

Dr Jagdeep Kaur was a Technical Reviewer for International Conference on Information, Communication and Computing Technology (ICICCT-2017) in collaboration with Springer CCIS and Computer Society of India (CSI) organised by JIMS Delhi. Dr Jagdeep Kaur reviewed a research paper for an international journal 'Software: Practice and Experience' by Wiley publishers in Sept 2017.

Dr K Mathiyazhagan, Associate Professor, Dept of Mechanical Engineering, joint author of 'Barriers analysis for Green Supply Chain Management implementation in Indian industries using Analytic Hierarchy Process' has been recognized by the Emerald Group Publishing Ltd as one of the most highly cited and highly influential papers published in 2014.

Dr Sushmita Biswal Waraich, Associate Professor SOM has been continuously writing for the print media. Her two articles published are 'A Unique Start-up Culture in the Making' published by The Natioal daily 'The Pioneer' on 4 June 2017 and 'Deliberating on Internal Dimensions in Teaching' published in 'The Pioneer' on 3 Sept 2017.

Internal Audits

A robust internal audit system has been established at the University which comprises of Academic and Administrative audit of our processes as per laid down criteria. The Audit Team consists of senior academicians of NCU and eminent external experts. The Fifth Internal Audit of all three Schools of Engineering, Management and Law was conducted from 13 -16 January 2017. All departments under SOET performed quite well with the top honours being taken by the Dept of EECE with the Dept of CSE&IT coming a close second. The School of Law and School of Management also performed well in the Internal Audit.

Accreditations & Statutory Approvals

The North Cap 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 North Cap 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 2017-18, vide BCI Letter No. BCI:D:752/2017(LE/Afflin) dated: 21 June 2017.

- **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.

SCHOOLS

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.

OUR WORLD
OF
EXCELLENCE

School of Engineering and Technology

The NorthCap University's School of Engineering and Technology (SOET) with its five academic departments of Applied Sciences (APS), Civil & Environmental Engineering (CEE), Computer Science & Engineering (CSE), Electronics & Communication Engineering (ECE) and Mechanical Engineering (ME) forms the largest component of its academic arena. Every programme 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 wide ranging changes taking place in technology in industry and higher education, nationally and internationally.

The learning methodology integrates multidisciplinary and contemporary global pedagogy

A number of experts from academia and industry visited SOET to provide inputs for curriculum improvement and faculty and student development. In addition, our Mentors and Adjunct Professors visited the School during the year. Dr CR Prasad, Former Chairman & Managing Director of Gas Authority of India Ltd; Prof. R Singh, Ohio State University, USA; Mr Sudam Maitra, Dy MD IFB; Prof. Tiwari, Former Professor IITD; Dr K Kumar, Former Director, Maruti; Prof. LM Das, IIT Delhi; Mr Saurabh Jolly, VP Seafaradays Pvt Ltd; Dr KN Rai, Former CEO (CN&E) & Advisor DRDO and Mr Vinod Hans, MD Federal Mogul were some of the experts involved in adding value to the holistic development of the School.

Faculty

The School offers an enabling work environment and support infrastructure for its faculty to innovate, carry out research besides learning technology to facilitate continuous improvement of the learning systems in the departments.

The School is proud of having a team of highly educated, experienced and dedicated faculty who are approachable by students at all times. Some of the most renowned academicians / researchers / industrialists in the country are associated with SOET as Mentors for academic grooming of our budding faculty.

Dr K Mathiyazhagan worked on a joint research project at the Center for Engineering Operations Management, Department of Technology and Innovation, University of Southern Denmark, Odense Denmark under Prof. Kannan Govindan (Head and Professor) from 15 December 2016 to 13 January 2017. The research focused on 'Development of sustainable indicators for Indian industries'.

Academic life is full of opportunities that offer horizontal and vertical mobility

During the reporting year two faculty development programmes, a large number of workshops, seminars, in-house conferences, guest lectures, trainings and industry engagement were organized to increase competencies.

Faculty development has been provided high focus this year. A six day Faculty Development Programme (FDP) was organized in December 2016. The FDP had knowledge oriented synergistic impact on the team that encouraged all to work with enhanced efficiency. A second six-day FDP was organized by all the departments in June 2017 to provide awareness of new technological developments and to strengthen learning processes. This has been a year when every faculty member visited and interacted with industry experts during the students' summer internships. Many had project oriented engagements with varied industries.

Currently 90% of our faculty is either PhD or pursuing PhD. During the reporting period eleven research scholars of SOET were awarded PhD degrees out of which seven PhD awardees are NCU faculty members viz., Prof. (Dr) Ravindra Ojha, Dr Vaishali Sahu, Dr Shaveta Arora, Dr Sheila Mahapatra, Dr Rita Rana, Dr Vandana Khanna and Dr Jyotsna Singh. A patent has been filed by Ms Charu Rana on 'Compact CMOS resistor' in 2017. A new initiative of sending faculty members for Externships to reputed companies was made during the current year. The objective of the Externship

Students win 2nd prize in Delta Cup 2017 held in China

One of the major outcomes from the Partnership Agreement signed with Delta has been the exposure of students to the Delta Cup compe-tition. An interdisciplinary team of students won the second prize in the Delta Cup 2017 held at Wujiang, Suzhou City, China from 23-26 July 2017. Their project was 'Self-Check-out system in Retail'. The event witnessed participation by 72 teams from all across South Asian countries.

Workshops

A large number of productive workshops were conducted by all the departments during the year listed at the end of the Report. A few are mentioned below:-

• ProLan - the Professional Lantern, on 15 February 2017 organized by the Association for Computing Machinery (ACM) Student Chapter. Through ProLan, the aim was to encourage our peers towards making better choices academically and professionally for technological advancement and excellence.

• The Student Chapter of the Computer Society of India (CSI) conducted a workshop on 3D Game development from 17-25 May 2017 for 1st Year BTech students.

• Three CodeSprints were organized to raise awareness about Competitive Programming and Online Learning Resources like HackerRank viz., NCU CodeSprint-1 held on 25 March 2017, NCU CodeSprint 2 held on 16 April 2017 and NCU Codesprint 3 held on 15 August 2017. All the three contests used HackerRank as the platform.

• The Dept of Civil & Environmental Engineering organized four useful workshops on AutoCADD, STAAD PRO, Revit and Primavera P6 software for the students.

• Society of Automotive Engineers, NCU Chapter conducted a practical oriented workshop for the students from 12 December 2016 to 12 January 2017. The workshop included inputs regarding design, manufacturing, 3D printing and robotics.

• NCU team ALACRITY of SAE Society secured 1st Position in the Pre Virtual Round of 'ISIE-Indian Karting 2017' held at NCU on 18 and 19 March 2017 in which 35 teams across India participated.

• The SUPRA Vehicle of NCU was showcased by the Imperial Society of Innovative Engineers for display from 22-24 August 2017 at the International Expo 'Sports India 2017-The 5th Indian International Sporting Goods Show' at Pragati Maidan, New Delhi.

NCU encourages education that is distinctively interdisciplinary and international

" Yatha Drishti, Thatha Srishti **As the Vision, so the World "**

• The University bagged three prizes in the 3rd National Student Project Exhibition SPEED-2017 on Engineering Design among 36 colleges and more than 150 projects organized in Gurugram on 17 February 2017. The project 'SUPRA Vehicle' won the best project in Mechanical and Civil Engineering. 'Coconut Opener, won the Best Project in Open Category (Tech for Fun).

Industry-Academia Engagement

American Society for Quality (ASQ)

The ASQ-NCU Student Chapter continues to play a big role in student industry leadership development. The Quality Conclave held in November 2016 paved the way for a large number of guided internships with defined problems. Many of these internships have resulted in major live projects for the Final year students. This has raised the quality of internships and provided a powerful window to students, for industry engagement.

Optical Society of America (OSA)

The Optical Society of America (OSA) Student Chapter continues to be an active professional society contributing to the education of aspiring engineers. On 20 January 2017 the society organized an impact making educational visit to the 'Nehru Memorial Museum and Planetarium'.

Visit to Nehru Memorial Museum and Planetarium

Encactus NCU

Enactus has made a significant impact in socially relevant areas during the reporting year. The recently concluded event 'INAAYAT' was greatly acknowledged by 'Enactus India'. Some of the other significant contributions by Enactus have been – Awareness campaign on Waste Management and launching of the Handbook on Waste Management 2017-18. Enactus NCU organised the 'Coca Cola Event' on 8 September 2017. The chief guest at the occasion was Mr Pablo Largacha, Global Public Affairs and Communication Head of Coca Cola Asia-Pacific. Coca Cola is one of the big sponsors of Enactus. Teams from 24 colleges participated in this event and made their presentations based on waste management, water and paper recycling.

Research Orientation

BTech Projects

Project Management plays a key role in enhancing leadership, structured problem solving and innovative skills of students. SOET has laid a lot of emphasis on it through the popular course on Project Management and through Practical Projects. Technovation 2017, the annual project day was organized by SOET on 21 April 2017. During the event 26 projects were showcased which were adjudged by external

industry/academia experts. Four of these projects went for the final evaluation based on innovation, authenticity, quality and standards to the Evaluation Committee for the Best BTech Project Award on 29 May 2017:

- 'Wi-Fi powered Indoor Navigation System' (CSE) developed by Harshit Juneja and Kriti Aggarwal, mentored by Dr Shilpa Mahajan.
- 'Home automation using IoT' (CSE) prepared by Karan Chauhan and Neha Wali, guided by Dr Prachi Ahlawat.
- 'Design and fabrication of a hybrid rocket engine' (ME) made by Suyash Abhay Ghirnikar and Tanmay Dhanote mentored by Dr Feras Al-Hakkak and Mr Anuj Jain.
- 'Design and fabrication of a Bamboo Cycle' (ME) developed by Siddharth Jain and Mudit Gupta guided by Dr Feras Al-Hakkak and Mr Anuj Jain.

Bamboo Cycle during Technovation

Total Merit is an integral part of this learning environment; from selection of faculty and staff, to admission, and evaluation of students.

Sponsored Projects/Consultancy

During the reporting year, nine research projects for a total amount of Rs 2.20 crore have been sanctioned by funding agencies and Rs 1.3 crore have been received till date. One DRDO (CARS) project for Rs 10 lakhs has been completed in 2017. In addition to these, 14 research projects (from December 2016 to 1 November 2017) have been submitted to various funding agencies.

VC Innovation Fund

The University continued encouraging innovative ideas of students.

- During the year three projects worth approximately Rs 4 lakhs were provided VC Innovation Fund on 24 January 2017. The details of the projects and award amounts are as follows:

S.No.	Students Names	Faculty Mentor	Title	Award
1	Harshit Juneja & Kriti Aggarwal	Dr Shilpa Mahajan (CSE &IT)	Wifi powered indoor navigation system with multilingual support (Nav Me Bot)	Rs. 43,000
2	Tushar Chadha & Ketan Singhal	Dr Anjali Garg (EECE) Dr Feras Al-Hakkak (ME)	Power generation through moving vehicles on road	Rs. 60,000
3	Suyash Abhay Ghirnikar & Tanmay Dhanote	Dr Feras Al-Hakkak, Mr Anuj K Jain (ME)	Design and fabrication of a hybrid rocket engine	Rs. 75,000
			Total	**Rs. 1,78,000**

- On 12 September 2017 the following new proposals submitted for VC Innovation funding received approval:

S.No.	Faculty/ PhD scholars	Title	Award
1	Dr Rohit Singh Lather, Dr Pramod Bhatia (ME)	Efficiency and Performance Improvement of the LPG Cooking Stove	Rs 1,75,000
2	Mr Sandeep Singh, Dr Yogita Gigras, and Mr Deepak Satyarthi (CSE & IT)	Remote monitoring & protection of UPS locations across The NorthCap University campus	Rs 50,000 (First Phase)
3	Ms Amanpreet Kaur, Mr Pankaj Rakheja, Ms Rupal Kapoor, and Mr Shailesh Kumar (EECE)	Design and Development of low power WSN Mote	Rs. 3,00,000
		Total	Rs. 5,25,000

Currently 108 PhD scholars are pursuing research at SOET and seven scholars are receiving University Fellowships of Rs 25000/- per month viz., Rishika, Ankita Gupta, Poonam Yadav (Dept of CSE&IT), Deepika, Pragya Guru, Aakriti Khanna (Dept of EECE) and Nidhi Verma (Dept of APS).

CRDI Research Engine facility

The University has set up a 'Single Cylinder CRDI (Common Rail Direct Injection) Diesel Research Engine Test Rig' facility to boost research infrastructure. It has been installed in the IC Engines Lab, Dept of ME in collaboration with Medhaavi Centre for Automotive Research, Hoshiarpur and NIRA Automotive Controls AB, Sweden at an approximate cost of Rs 16 lakhs on 4 September 2017.

Industry oriented curriculum

The curriculum was revisited to provide more emphasis to industry oriented courses and in new emerging areas. The new scheme designed for course curriculum includes subjects from new technology areas like Internet of Things (IoT), 5th Generation of Mobile Communication, Cloud Computing, Machine Learning, 3D Printing and Digital Marketing, etc. In order to improve the quality of major projects, it is planned to shift from 7th and 8th to 6th and 7th semesters thereby giving students more productive time.

There have been a number of other initiatives taken by the School for improving the curriculum:-
- **QEEE programme of IIT Madras**: NCU bagged the highest status i.e. 'QEEE Partner Status' with IIT Madras during the reporting year.

- **Spoken Tutorials IIT Bombay**: New courses were introduced and students are getting blended learning experience through online courses as well.

- **Virtual Labs IIT Delhi**: NCU is a designated Nodal Centre for Virtual labs by IIT Delhi.

- **New IoT Lab has been set up and Digital System Design Laboratory upgraded**: The Dept of EECE has upgraded its Digital System Design Laboratory with Xilinx Vivado EDA Tool Suit and ZedBoard on 24 April 2017. The new Vivado editions supply design teams with the tools and methodology needed to leverage C-based design and optimized reuse, IP sub-system reuse, integration automation and accelerated design closure at a high level of abstraction with design reuse feature.

- **Mechatronics Lab**: A new equipment 'QUBE SERVO (USB)' has been integrated with the Mechatronics Lab, Dept of ME. It has features such as interfacing with MATLAB, measurement & controlling of DC Motor and Pendulum Module, and MATLAB programming & interfacing with Hardware. Seven new experiments have been designed and mapped with two courses. It has a wide scope for research in advanced areas like MATLAB programming using ANN/FUZZY/GA, Control, and controller design.

- **Workshop on Wireless Sensor Networks** by Advanced Technologies, Chandigarh. The workshop included hands-on session on wireless sensor nodes and their communication using Zig-Bee.

NCU Testing Centre (NCUTC)

The NorthCap University Testing Centre (NCUTC) has been established by the Dept of Civil & Environmental Engineering to conduct mechanical testing of building and construction materials. NCUTC provides professional services to customers, both private and government organizations who are involved in real estate business and construction industries. Recently NCUTC obtained NABL accreditation (TC-5209) for aggregate, cement and harden concrete testing facilities. NCUTC has generated a total income of over Rs. 1.3 lakhs till 1 November 2017.

Student Employability Enhancement

To facilitate evaluation of graduating students' employability readiness and gap analysis the University outsourced it to M/s Aon CoCubes in December 2016 who do third party assessments for BTech graduating students, on behalf of hiring companies. Aon CoCubes is engaged with 400 + companies and 300 + universities. It is expected that SOET students would do well in the assessment test and be employed in leading industries at enhanced salary packages.

The University adheres to Zero Tolerance in fulfilling Academic & Administrative responsibilities

School of Management

The vision of the School of Management (SOM) at the NorthCap University is to be a leading management school with emphasis 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.

Programmes

The School is successfully running the three-year UG programmes of BBA, BCom (H), BA Eco (H) and two year full time MBA programme. Admissions to MBA and other programmes were conducted including the University's Management Entrance Test (NMET). The PhD (Management) programme is progressing well. On 25 March 2017 renowned experts, Mr Achalesh Sharma, HR Professional, Formerly VP, HR, Snapdeal and Mr Sandip Khetan, Partner & Head, Accounting Advisory Services, SR Batliboi and Associates (EY India member firm) participated in the Board of Studies, for Curriculum Review of Undergraduate Programmes at SOM.

Ranking

The NorthCap University secured 61st position overall in B School Ranking survey of MBA Universe 2017-18. The NorthCap University was ranked among the Top 100 Management Schools in India, including IIMs, by Outlook 'India's Best B-Schools Survey 2017' published in Outlook, October 2017 issue.

Faculty

During the reporting year Dr R Narasimhan joined as Professor and Dean, School of Management. Dr Preeti Chawla, Dr Deergha Sharma, Dr Shelly Singhal and Dr Sonali Yadav joined the School as Assistant Professors in July 2017. Eminent professionals of international repute joined the School of Management as Honorary Adjunct Faculty viz., Mr Kuber Sharma and Mr Ankur Kulshrestha.

Ms Jiveta Chaudhary was awarded a Gold Medal and won the 'Best Student of The Year – 2016' award for topping and securing First Rank (All India) in the Diploma in Training & Development, Indian Society for Training and Development (ISTD), New Delhi at the convocation on 18 June 2017.

SOM organized an orientation session for its visiting faculty members at the beginning of the semesters in January and July 2017 to familiarize members with the processes and policies of the Department/University. There were discussions on ERP, examination & results and day-to-day related activities. Mr Deepak Satyarthi briefed members about LMS and OTMS and Ms Chetna Taluja on ERP.

A Faculty Development Programme (FDP) was held on 'Research Methodology using SPSS and AMOS' from 13-15 December 2016 to facilitate scholars, academicians, and practitioners in research. The FDP aimed at providing research stimulus to keen learners. SOM conducted another FDP from 5-10 June 2017. Extensive training on usage of LaTeX was provided to faculty and successful approaches for research, scientific ways of writing a case study and techniques for motivating students were discussed.

Entrepreneurship Development Cell
The Entrepreneurship Cell invited Mr Zorawer Singh of 'Jugnoo', App based auto rickshaw provider, to share his insights with students on the 'Journey of Jugnoo' on 28 February 2017. He shared the business model of 'Jugnoo' and discussed various steps a person should follow when setting up a business. Subsequently a mentoring session followed for potential NCUpreneurs.

The E-Cell of the University organised 'EntreThrust' on 31 March 2017 in which the objective of the PowerPoint Impact competition was to allow students to expand their imagination.

The NorthCap University was ranked among the Top 100 Management Schools in India, including IIMs, by Outlook 'India's Best B-Schools Survey 2017'

Student Development
Mr Peter de Jager, a world renowned speaker, orator and management consultant from Ontario, Canada conducted an interesting session for student development on the topic 'Problem Solving' on 25 July 2017.

Arthashastra 2017
'Arthashastra', the Annual Management fest was organized by SOM on 11 January 2017. 'Arthashastra' not only provided the participants a platform to display their core skills but also a cultural rejuvenation and joyous experience.

Abhaar Mela
NCU in association with NGO, Goonj, organized 'Abhaar Mela' on 21 March 2017. It comprised of a book fair of used books and the sale of Green Goonj Products, a brand built around reusing and upcycling even the last shreds of materials. It was heartening to see students coming out in large numbers to buy the books and green products. Under the campaign 'Rahat-Floods' SOM in collaboration with the NGO 'Goonj' initiated a collection drive in Gurugram on 10 September 2017 and raised funds, clothes, dry rations, blankets etc. which were donated to people in the flood affected areas in various parts of India.

Internship & Placements

An orientation programme for all undergraduate BBA and BCom (H) students was organized to brief students about summer training and report preparation on 16 May 2017. With the objective of helping students understand how to put theory to practice and align them as per the requirements of the industry, the School facilitated summer internships for all its students. As a result, students had the privilege of interning with companies like HDFC, IDBI, India Bulls, Maruti Suzuki, Bajaj Motors, Videocon, Jio, Bharti Airtel, Fortis, PowerGrid, Zomato, etc. Along with opportunities to work in various settings, develop work relationships and gain practical experience, several students bagged handsome stipends during their internship.

Despite stiff competition in the market, with the efforts of SPA the MBA students were placed at reputed organizations such as EY Global Delivery Network India, Just Dial, Airtel, DLF Golf Resorts, Laurent & Benon and others. The PGDM students were placed with good salary packages of over Rs 10 LPA.

Industry Collaborations

A soft skills and technical skills Bootcamp was organized for MBA Final year students from 12–17 December 2016. A Seminar on 'Rethinking and Redefining Human Capital in Today's Fast Changing Business Horizon: Dialogues & Perspectives' was organised on 25 February 2017. The speakers were industry stalwarts i.e. Mr Jagjit Singh, Chief People Officer, PwC and Mr P Dwarkanath, Head, Group Human Capital, Max India. The speakers shared their experiences related to challenges faced by employees in today's competitive environment and the changing nature of jobs/employment. Factors like agility, adaptability and adding value to business were highlighted. Students from SOM and SOET attended the seminar. An industry guest session was conducted by Mr Achalesh Sharma, Founder & CEO, Prime Consulting on 19 January 2017. The interactive session focused on how to approach interviews, the emerging sectors, skills required and how to start a corporate journey. An industrial visit to the Mother Dairy Plant, Delhi was organised on 22 March 2017 for the students of BBA-III, BCom (H)-III and MBA-I. The presentation and the plant visit made the students aware of the entire production process i.e. starting from collection of milk from farmers, clarification, homogenization, pasteurization, fortification till dispatch. An industrial visit to Carrier Aircon, Gurugram was organized for the students of the course CILE. A guest lecture on 'Employee Performance in the Era of Competition: Industry Perspective' was delivered by Mr Rajesh Tara, VP-HR, Usha International Ltd, to students of BBA, B Com and MBA on 25 April 2017.

Alumni Meets

Alumni interactions and Pre Placement Interviews were organized for MBA students with Pushap Karan, Class of 2014 (Macquarie, Investment Bank), Rishika Singhal, Class of 2014 (Moody's Analytics-Investment Banking Division), Noopur Gupta, Class of 2014, (quotemykaam.com - Home Services Provider), Trisahla Bhan and Abhinav Malik, Class of 2015 (Protiviti) and Puneet Khanduja, Class of 2015 (Mercer Consulting) on 22 April 2017. They shared their learning experiences at NCU and their implementation in the corporate world.

Research

During the reporting year four research scholars completed their PhD:

Name of Research Scholars	Research Title
Dr Ravindra Ojha	Modelling and analysis for manufacturing growth in the Indian economy
Dr Archana Mehra	Impact of Microfinance and women self-help groups in the development process of Mewat in Haryana
Dr Irameet Kaur	A paradigm shift in education management-application of emotional intelligence and social media based human resource practices
Dr Sunaina Sangwan	Modelling and analysis of employability of management graduates

Currently 14 research scholars are pursuing research at the School of Management and one research scholar, Niharika Garg is receiving University Fellowship of Rs 25,000/- per month.

School of Law

The vision of the School of Law (SOL) is to be ranked amongst some of the best law schools in India and the preferred destination for law aspirants. SOL strives to provide the highest quality professional legal education to equip students for transnational practice and to face challenges posed by internationalization of the legal profession. 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 PhD programme at the doctoral level.

In the National Law Schools Survey 2017 SOL was awarded 3rd Rank in the Northern Region and 8th Rank in the category of 'Eminence' by Global Human Resource Development Centre (GHRDC), New Delhi. It has been a delightful yet a rigorous joint effort on the part of the students and faculty who have relentlessly worked for the success of SOL. NCU's School of Law has been recognized as the Best Emerging Law School in India in the survey conducted by Careers 360 in January 2017.

Besides academics, students participated in various co-curricular and extra-curricular activities organized across the country and SOL pro-actively organized various national and international-level programmes on the campus. Students of 2012 – 17 batch received lucrative job offers at reputed law firms, corporate offices and LPOs.

Faculty
During the year faculty members were involved in outreach activities to deliver lectures, judge Moot Court competitions and conduct workshops at reputed Law universities. Mr Subhradipta Sarkar and Ms Archana Sarma, Assistant Professors conducted a Workshop on Legal Research Methodology from 31 August to 2 September 2017 at Symbiosis Law School, Hyderabad. New faculty member Ms Deborisha Dutta joined as Assistant Professor in the School of Law in July 2017.

Faculty members published book chapters and papers in national and international journals. Five faculty members are pursuing PhD and Dr Shabana Shabnam, Assistant Professor completed her PhD on the topic 'Democratic Decentralization and Good Governance: A Socio-Legal Study of Panchayati Raj Institutions of Jammu Division'. Currently 16 research scholars are pursuing PhD at SOL.

Conferences, Seminars & Workshops
During the reporting year seminars and conferences organized by SOL brought together legal stalwarts from various areas of law to enhance the understanding of law in the emerging and complex legal arena. Students and faculty of SOL were invited to the felicitation programme organized by the Bar Council of India on the elevation of Justice J S Khehar as the Chief Justice of India on 20 January 2017. Students got an opportunity to interact with the legal fraternity.

SOL was a part of the Organizing Committee of the World Conference on Environment - 2017 organized by the National Green Tribunal in New Delhi from 25-26 March 2017. 30 students got an opportunity to work with members of the NGT and also a chance to interact with eminent speakers from the Ministry, judicial authorities, Chief Justices of various nations and other international delegates.

SOL in collaboration with the Indian National Bar Association organized a 'National Conference on Criminal Justice Administration in India: Contemporary Issues & Challenges' on 8 April 2017 at the University. Dignitaries from the legal fraternity such as Justice Vidya Bhushan Gupta, Former Judge, Delhi High Court; Prof. (Dr) GS Bajpai, Registrar, National Law University Delhi, and Shri KTS Tulsi, Senior Advocate, the Supreme Court of India were present. About one hundred students and professionals from different institutions presented their research papers and three research papers were awarded prizes in the conference.

Moot Court
The 4th Edition of NCU School of Law National Moot Court Competition (NMCC) on Environment Law was organized on 22 and 23 April 2017 to increase awareness about Environment Laws among students. The event was held on the occasion of Earth Day. It was inaugurated by the Hon'ble Justice Swatanter Kumar, Chairperson, National Green Tribunal, the highest environmental Adjudicatory body who graciously announced internships for NCU law students with NGT. The Moot Court Competition witnessed participation from National and Private Law Schools all over the country including UPES Dehradun; Symbiosis Law School, Pune; National Law School, Assam; National Law University Ranchi; Tamil Nadu National Law University etc.

Guest Lectures
A Special Lecture on 'Challenges in Criminal Investigation: The Role of Law Enforcement Agencies in India' was delivered by Mr Ramesh Chander, Former ACP, Delhi Police on 27 February 2017.

On 24 March 2017 a special lecture was delivered by Mr Ranjeev C Dubey, Managing Partner of the law firm, N South Advocates. Being impressed by the skills and knowledge of the students at NCU, he offered placement opportunities to the students of Final year.

Dr Micheal Hantke Domas, Chief Justice, Third Environment Court, Valdivia, Chile accompanied by Professor Stephen Stec, Professor, Central European University delivered a lecture on practical issues about the relationship of justice delivery and economics on 28 March 2017.

Centre for Intellectual Property Rights Advocacy, Research and Training (CIPRART)
A workshop on 'Patent filing in India and abroad' was organized at the University on 24 January 2017. Adv. RK Nair, IP Attorney discussed the criteria for patentability, why India is lagging behind in filing the number of patents every year and the process through which an international patent may be filed. A Workshop on Enforcement of Intellectual Property Rights was organized by the Ministry of Commerce and Industry from 22-24 August 2017 at Hotel Ashok, New Delhi in which our students participated.
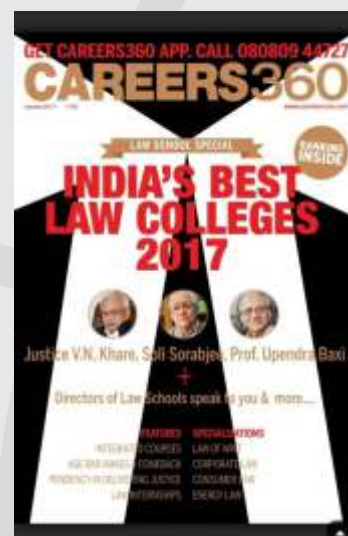
Collaboration

SOL Collaborated with Navjyoti India Foundation (NIF) for the 6-P Project proposed by Dr Kiran Bedi, Founder of Navjyoti India Foundation on 31 January 2017. The 6-P Project focuses on crime prevention to ensure safety of women and prevention of crime against women and children.

As part of this Agreement, a visit to the Prayas Observation Home for boys as well as the Juvenile Justice Board II, Delhi was organized along with the Department of Women & Child Development, New Delhi. One of the primary objectives of the visit was to conduct an empirical study on various rehabilitation measures adopted by the Home for delinquent juveniles.

Rotaract Club of NCU

NCU's Rotaract Club 'Genesis' was formally inaugurated on 3 June 2017 under the aegis of the Rotary Club, Gurugram, the youth wing of Rotary International. It provides opportunity to the young generation to develop their professional and

leadership skills and address the needs and concerns of society through continuous engagement as well as specific programmes.

Centre for Post-Graduate Legal Studies

To provide in depth understanding about pedagogy of research and teaching in the domain of Law, the Centre for Post-Graduate Legal Studies (CPGLS) at SOL organized an FDP on 'Legal Research and Teaching Methodologies in Contemporary Era' from 5-10 June 2017. The aim of the FDP was to provide better understanding about various methods of research and to create awareness about the role of legal research in the development of law.

British Law Mission at SOL

Delegates of Law Mission, organized by British Council, visited the University on 14 February 2017. A group of eminent professors from Southampton Solent University, Robert Gordon University and London South Bank University delivered academic lectures and shared knowledge with the students in their areas of expertise. Students got an opportunity to interact with them and gain from the insights of international professors in the emerging areas of IPR, Extradition and Human Rights.

Internship/Placement/Higher Studies

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.

BBA-LLB(H) students put up an admirable performance in LLM, CLAT 2017 conducted for admission to the National Law Universities across the country. They achieved All India Ranks and are now pursuing higher studies at reputed institutions such as NUJS, Kolkata; NLSIU, Bangalore; NALSAR, Hyderabad etc.

It is indeed a matter of pride to announce that two of our students got admission to LLM in prestigious foreign universities i.e. Advanced Studies Programme in Public International Law at the University of Leiden, The Netherlands; University of California at Berkeley (UCB) Bolt Hall.

Legal Aid Clinic

The School has a well-established Legal Aid Clinic and it continued to impart training in Advocacy Skills. SOL in association with Full Gospel Trust of India conducted a legal aid camp at New Delhi on 28 January 2017. Adv. Sulacha and Adv. Babita (Advocates, High Court of Delhi), chaired the legal aid clinics. Student volunteers from SOL's Legal Aid Cell participated in the event and assisted the advocates in the legal aid clinics. Students also visited the Bhondsi Jail spreading awareness amongst the inmates regarding their right to free legal aid and also highlighting the process of reformation being used as a tool to sensitize offenders implemented through various corrective measures by the prison authorities. To inculcate court procedures in jury trials, a Mock Trial was conducted for students with basic 5 on 5 trial with roles of barristers, lawyers and witnesses on 10 February 2017.

*NCU
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3rd
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Northern
Region*

The 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, helps them plan their careers better and nurtures students from induction to placement, acting 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 by equipping them with the right kind of skills and attitude so that they can become more effective, efficient and productive in their employer's organization. Soft skills are imparted to students through a series of initiatives like lectures, seminars and workshop by industry stalwarts etc.

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 with its empanelled companies.

Job placements are arranged by inviting companies for on-campus selection 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 our 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 resulted in 92% placement of eligible students of Class of 2017 from all the three Schools – School of Engineering & Technology, School of Management and School of Law. Placements were achieved in premier companies like Deloitte Consulting, Ernst & Young, Mckinsey & Co, British Telecom, Ericsson, Fidelity, Libsys Corp., Newgen, Lutron, Protiviti, CB&I, Samsung Engineering, Orange, Reliance Communication, Everest Industries, Sapient, Gartner, Vegazva Group, DLF, Mentor Graphics etc. A positive feedback of the previously employed students from the employer organisations resulted in these companies continuing to return for campus placements with more inclusions each year.

As regards internships, Shikha Sharma and Himanshu Sharma, MTech VLSI (Class of 2017) were selected as interns at Synopsys and later they were placed at Synopsys with a salary package of

Rs 12 LPA. Himanshu Gautam (Class of 2016) MTech VLSI was placed at Cadence at a salary package of Rs 14 LPA.

Besides placements, a number of our students have gone in for higher studies in India, including IITs, and abroad to University of Reading, UK; University of Limerick, Ireland; University of Florida, New York University, University of California, Arizona State University (USA); University of Windsor, Canada; University of Melbourne, Australia amongst others. Relentless efforts of SPA resulted in 92% placements of eligible students of class of 2017 from all the three Schools – School of Engineering & Technology, School of Management and School of Law. Placements were achieved in premier companies like Deloitte Consulting, Ernst & Young, Mckinsey & Co, British Telecom, Ericsson, Fidelity, Libsys Corp., Newgen, Lutron, Protiviti, CB&I, Samsung Engineering, Orange, Reliance Communication, Everest Industries, Sapient, Gartner, Vegazva Group, DLF, Mentor Graphics etc. A positive feedback of the previously employed students from the employer organisations resulted in these companies continuing to return for campus placements with more inclusions each year.

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92% eligible students from the Class of 2017 were placed with India's leading companies

S.No.		BTECH							MTECH	MBA	LAW
		CS	EEE	ECE	ME	IT	CV	TOTAL			
1	Actual Strength	133	48	132	106	48	50	**517**	50	37	74
2	**Eligible & Interested for Placement**	96	27	89	41	36	16	**305**	10	16	34
3	Number of Placements	88	22	88	33	33	14	**278**	5	13	22
4	Percentage Placements	92	82	99	81	92	88	**92**	50	82	65

Some Leading Recruiters

Centre for Languages Learning

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. The Centre for Languages Learning reviewed the curriculum for the language courses which was overseen by Prof. Harish Narang, External Expert and approved by the Academic Council in April 2017.

Two consultancy projects on Communication Skills at Lirik Technologies, Gurugram and on Business Communication at Dura Heatex Pvt Ltd, Gurugram were conducted during the year. The participants were helped to develop a more confident and persuasive vocal style and to use body language effectively to build rapport. They learnt how to enhance their writing skills so that the key message is clearly understood.

The Centre conducted a Faculty Development Programme (FDP) on Communication Skills for the faculty of NCU's three Schools. The objective was to enhance communication skills of faculty members. Spoken English skills were improved by using standard pronunciation and giving adequate importance to pauses while speaking for better assimilation by listeners. The sessions introduced the critical aspects of correct grammatical structures for good speech with practice sessions for participants. A Faculty Development Programme on 'Emerging Trends and Challenges in Teaching' was organized by CLL from 5-10 June 2017. Eminent academicians delivered expert lectures. The aim of the FDP was to motivate and inspire faculty members and enrich the learning processes.

The Centre runs various clubs like Samwad, Success Mantra, Lingua Franca, Mainstream and Abhivyakt that conducted several enriching activities and competitions. Mainstream Club organised an event called 'Dynamic Minds - Let's Get It' on 9 February 2017 to test awareness and general knowledge of the students. The event 'Analytical Thinking' under Club Success Mantra was held on 6 February 2017. Club 'Lingua Franca' organised an event 'Aircrash' on 9 February 2017 to test the thinking and writing skills of students. The Debating Club 'Abhivyakt' organized 'Altercation: The Great Debate', an interdepartmental debating competition on 'This house believes that the practice of the identity politics promotes equality and unity instead of disintegration' on 24 April 2017. The debate witnessed exuberant participation from all the departments and Schools of NCU. YUMS (Yes, U May Speak), an extempore competition was organised by Club Abhivyakt on 9 February 2017 to test the creativity and humour potential of the speakers.

The University's BTech 2nd and 3rd Year students attended the Education Fair held at the Embassy of France, New Delhi and met a delegation from Network 'n+i' with whom the University collaborated on 7 February 2017. The students had a one-on-one interaction with the delegates. The University organized Network 'n+i' Engineering Education Seminar on 6 September 2017 wherein study options in French Engineering Institutes, how to get a scholarship etc. were discussed. The seminar was attended by 3rd and 4th Year Engineering students of the University.

CLL organised a special lecture on 'Self-Empowerment for success in life' by Dr Mohit D Gupta, Associate Professor, Cardiology, GB Pant Hospital, New Delhi on 24 January 2017 for 2nd Year students. This lecture was a part of the series under the course 'Human Values and Professional Ethics' where experts deliver special lectures.

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 Language Lab offers students an alternative way of learning and promotes the practice of skills learnt 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.

BTech Admission Profile

Ratio of applicant to intake seats indicates a healthy demand trend at THE NORTHCAP UNIVERSITY
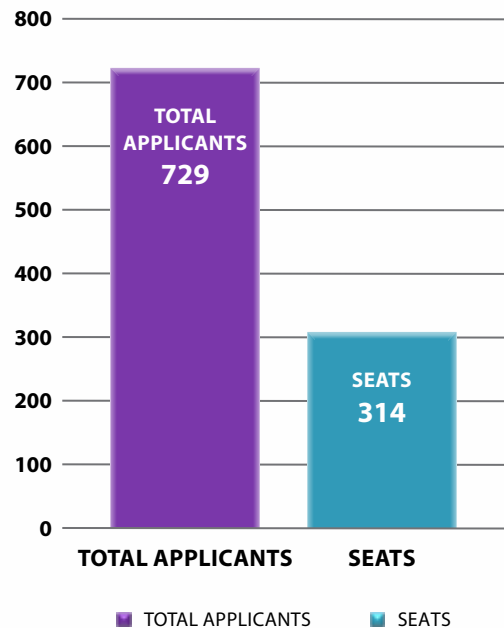
Student Strength and Intake 2017

S. No.	School	Admitted in 2016	Students strength other than fresh intakes	Total Strength
1	School of Engineering & Technology	314	1697	2328
2	School of Management	200	378	578
3	School of Law	111	341	452
4	PhD	25	113	138
	Total	**667**	**2471**	**3138**

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

S. No.	Branch	Top Marks	
		JEE MAIN (Out of total 360)	10+2
1	CSE	103	**95.60%**
2	MECH	115	**92.20%**
3	ECE	72	**94.20%**
4	CV	60	**83.6%**

Area-wise profile of admitted students
Total Students of B-Tech Area Wise (2017-2021)
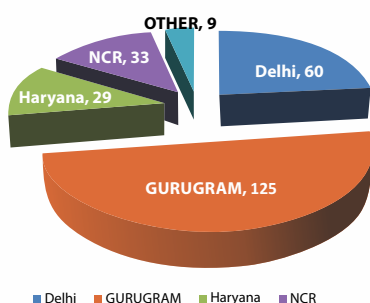
Branch choice trends
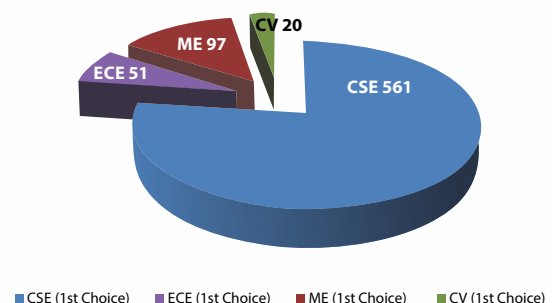
Academic Results

The University results for Academic year ending June 2017 have been satisfactory. 853 students were awarded degrees in their respective disciplines, including 508 from BTech, 60 from MTech, 19 from BSc Maths (H), 13 from MSc Maths, 58 from BBA, 30 from BCom (H), 20 from BSc (Eco), 32 from MBA, 77 from BBA-LLB (H), 18 from LLM and 15 awarded PhD. 5 students were awarded PG Diploma in Management & Leadership. The detailed results are shown below:

UG Courses

Discipline	Total Strength	Total Passed	1st Class with Distinction	First Class	Second Class
Btech Computer Sc & Engineering	141	135	19	103	13
Btech Civil Engineering	52	49	6	34	9
Btech Electronics & Communication Engineering	135	129	21	91	17
Btech Electrical & Electronics Engineering	50	47	7	34	6
Btech Information & Technology	52	50	7	37	6
Btech Mechanical Engineering	109	98	11	73	14
Bsc Maths (Hons)	24	19	5	10	4
BBA	84	58	11	41	6
Bcom (Hons)	40	30	3	24	3
Bsc Eco	24	20	3	15	2
BBA LLB(Hons)	79	77	6	53	18
Pass Percentage (90%)	**790**	**712**	**99**	**515**	**98**

PG Courses

Discipline	Total Strength	Total Passed	1st Class with Distinction	First Class	Second Class
MTech	63	60	7	49	4
MSc Maths	14	13	2	10	1
MBA	37	32	4	25	3
LLM	18	18	1	15	2
Pass Percentage (93%)	132	123	14	99	10
PhD	-	15			
PGDM & Leadership	5	5			

Medals Awarded – Convocation 2016

School	Programmes	Gold Medal	Silver Medal	Bronze Medal	Certificate of Merit	Total
SOET	BTech (All branches)	6	6	6	-	**18**
SOET	BSc (Maths)	1	-	-	-	**1**
SOET	M Sc (Maths)	1	-	-	-	**1**
SOET	M Tech	4	-	-	4	**8**
SOL	BBA- LLB(H)	1	1	1	-	**3**
SOL	LLM (1Yr)	1	-	-	-	**1**
SOM	BCom (H)	1	1	-	1	**3**
SOM	BBA	1	1	1	-	**3**
SOM	BSc (Eco)	1	-	-	-	**1**
SOM	MBA	1	-	-	-	**1**
Total		**18**	**9**	**8**	**5**	**40**

Academic Initiatives

In its quest for excellence, the University continuously strives to improve its academic standards by aligning and upgrading academic plans as per changing technologies and current trends. 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 by upgrading research facilities and the learning processes to enhance student employability with a strong adherence to corporate ethics and overall student experience.

Strategic Plans for Schools & Departments

Understanding the importance of Strategic Plans, The NorthCap University through a series of interactions finalized the Strategic Plans for the three Schools, which have since begun and are monitored at periodic intervals. The areas focused are:

- Innovative learning processes such as experiential learning through interactive lessons by industry experts, meaningful internships in industries, reduction of contact hours and teaching load, IT enabled learning etc.
- Market driven curriculum and benchmarking it with reputed national and international universities with inputs from the industries. Enhanced practical content of curriculum by adding mini projects and case studies.
- Building and enhancing research activities by recruiting PhD faculties, motivating scholars to pursue research. I am happy to report that there has been a significant increase in the number of scholars pursuing PhD in the last one year. Research labs have been upgraded with the latest equipment and research on multidisciplinary socially relevant topics has been taken up. Continuous liaison has been maintained with funding agencies to identify areas of research important to them.
- Enhance quality of placements, early profiling of students to highlight their strength/weak areas. Outcome based alumni engagements and students exposed to more external events.
- Enhanced student intake, quality and quantity, through increased visibility of the University on social media, radio, TV etc.

Curriculum Review

A comprehensive exercise was taken up across all Schools/Departments to review the curriculum so as to align it with the emerging industry requirements with greater emphasis and time for overall development of students. Experts were invited from reputed industries and academic institutions like IITs, IIITs, NLU, including some foreign universities like University of Texas, Microsoft, Ericsson, Nokia, Siemens, Maruti Suzuki and others for detailed discussions. Open house and

OUR WORLD OF EXCELLENCE

group discussions were held with extensive deliberations on understanding the current needs of the industry and prevalent practices in leading academic institutions.

Salient features of the revision are:

The credits in all programmes have been rationalized and brought in line with some of the best institutions in the country. New courses have been added including Internet of Things, Cyber Security, Data Analytics, 5G telecom systems, building leadership etc. The University in conformity with the Credit Framework for Online Learning courses through SWAYAM has introduced some MOOC courses for Elective programmes to widen the access to higher education and bring down cost by using technological advances. Soft skill courses have also been upgraded to make them more practice and industry oriented. Compulsory foreign language courses such as German, Spanish and French help students widen their horizons. General Proficiency work has been introduced to provide opportunity for all round development of students with additional project work for increased practical exposure. Case study based learning has been introduced in many subjects particularly in the Schools of Management and Law. 90 minute classes have been introduced in many subjects and with student contact hours limited to 25-26 hours per week, sufficient time is now available to students for self-study, extracurricular activities and sports. Lab-work has also been upgraded with new relevant experiments to enrich the learning experience.

New Labs Set up

A new lab on Internet of Things has been set up for EECE and CSE students. The lab has several platforms like Arduino, Raspberry Pi, wi-fi modules and many interfaces and necessary software / tools and sensors to design and implement various applications. A new Mathematics Lab has been set up as a unique concept for 1st and 2nd Year students. The lab helps visualize mathematical concepts for better appreciation and understanding and enriches students' learning of the fundamentals of Mathematics so critical in Engineering.

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 requirement of the revised curriculum. New equipment like spectrum analyzers, automatic antenna testers, wireless sensor networking systems, IoT subsystems etc have been installed in the labs of the Department of EECE. Upgraded software tools such as Cadence tools for VLSI Design, Xilinx tools for Embedded Systems have also been added. The Department of CSE&IT has upgraded its labs with many open source tools. In the Department of Mechanical Engg, a new equipment 'QUBE SERVO' has been installed in the PG and Mechatronics Lab and a 3D printing lab with CAD has also been set up in the Department of ME. Physics and Chemistry labs have also been upgraded with new equipment.

Incubation Centre

The Master Jagannath Centre of Excellence and Incubation (MJCEI) 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. The Centre has commenced its operations recently and has invited proposals from the students.

Partnership Agreement with the industry and academic institutions

NCU has collaborations with reputed industries and renowned international universities. Some of these include Mitsubishi Electric India Pvt Ltd which has provided equipment for carrying out advanced PLC experiments; Delta Power Solutions India Pvt Ltd which is training students to develop projects and providing opportunities to participate in international project contests. Three students from

Compulsory foreign language courses such as German, Spanish and French help students widen their horizons

the Department of ME recently won the 2nd prize in a contest held in China. Beijing Wavespectrum Science and Technology Co, China has set up an interdisciplinary Mechanics Lab at NCU that is boosting BTech, MTech and PhD programmes. Students interned in China and were finally placed with the company in China. The Department of Civil and Environmental Engineering collaborated with CADD Centre Dwarka as their software training partner to train students in various softwares like Staad Pro, Nevis Works, etabs and Revit, etc.; IIT Delhi for Indian Road Safety Campaign, a voluntary organization running under the umbrella of Transport Research and Injury Prevention Program; M/s. G-Eng Advisory Services Pvt Ltd, to facilitate industry engagement for internships, placements, and live projects and with Seafaradays India Pvt Ltd, an Offshore Renewable Energy space, for faculty externship programmes, student internships, placements and live projects.

These partnership agreements have provided exposure to students to varied types of industrial environment through industry visits, live projects, guest lectures, internships and placements.

NCU has collaborations with some leading international universities viz., the existing partnership agreement with ITB, Dublin, Ireland for CSE&IT students has been extended to the Depts of EECE and ME. Collaboration with the University of Dayton, Ohio, USA is providing opportunities for joint

collaborative research, students and faculty exchange. Partnership with the Michigan Technological University, Michigan, USA which was currently active with the Dept of CSE&IT has been extended to other departments of the University as well. These collaborations offer opportunities to our students for global exposure through credit transfer arrangements and to our faculty under faculty exchange programmes.

Collaboration with IITs

NCU has entered into association with IITs for providing supplementary learning opportunities to students in various subjects viz., IIT Madras for their QEEE (Quality Enhancement in Engineering Education) programme which started with the Dept of EECE and has expanded to all the engineering departments during the year. NCU was placed in 'Partner' category by IIT Madras, which is the highest and indicates a high level of commitment to this programme. Similarly, the Spoken Tutorial Programme with IIT Bombay that provides training in various programming languages has also been expanded. Under the Virtual Labs programme with IIT Delhi many new experiments in Electronics, Computer Science and Mechanical Engg have been added. Virtual Labs are providing remote access to our students to some of the facilities at IIT Delhi.

Third party assessment of students for enhancing employability

Aptitude tests are becoming a standard practice for shortlisting of students for placement in most of the leading companies. NCU has tied up with Co Cubes, an agency specializing in these tests, to provide testing facilities to our students right from the 1st Year. These tests check the proficiency of students in analytical, quantitative, logical reasoning, spoken and written English etc. In-house practice and training sessions are being provided to students to develop these skills that are required by the industry. This is expected to enhance the employment opportunities for our students both in numbers and quality.

New Programmes

The Department of Applied Sciences (APS) has launched a new programme in BSc Physics (H) [2017-18] and I am happy to report that it has made a good start. The Department of APS also offers BSc (H) Maths and MSc Mathematics programmes , which are doing well. In addition, NCU has also received approval from the Govt of Haryana for starting a new four year Bachelor of Fine Arts in Animation & Visual Effects programme which is expected to be launched from next year.

Introduction of new IBM Courses

To keep pace with rapid technological advancement the University has tied up with IBM Career Education Programme and is running courses in Emerging Technologies. Faculty Development Programmes on Business Analytics, Big Data Analytics and Internet of Things (IoT) were conducted by IBM. During the reporting year similar IBM courses were also conducted for students of 5th, 6th and 7th Semesters of the Departments of EECE, CSE and for MBA students of 2nd and 3rd Semesters. These IBM programmes are training students in the most promising areas of the future through hands-on experience.

Faculty Development

To keep pace with the subjects in the emerging technologies that are being introduced in the curriculum, faculty knowledge base is continuously being upgraded for which the following initiatives were taken during the year:

- **Faculty Developments Programmes**

  All Schools/Departments organized six day Faculty Development Programmes (FDP) at the end of each semester in December 2016 and June 2017 besides the University level FDP. The objective of these Departmental FDPs was to introduce and discuss with the faculty the

futuristic/emerging technologies introduced in the curriculum. Eminent experts from the academia and the industry conducted these FDP sessions. Special emphasis was placed on 'hands on' experience during these programmes.

- **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 during the year. In each semester faculty members spent 3-5 days in a selected industry. This not only provided the required industry exposure to the faculty members but also offered opportunities for enhancing student internships, joint project work and good quality placements. The experiment was initially tried in the Dept of EECE with good results and has now being extended to other Schools/Departments also.

Faculty

Senior Appointments

- **Dr R Narasimhan** joined as Professor and Dean, School of Management on 1 May 2017.
- **Dr Kavita Khanna**, Associate Professor, appointed as Head, Dept of CSE&IT on 21 July 2017.
- **Dr Anil Misra**, Associate Professor, appointed as Head, Dept of CEE on 4 August 2017.
- **Dr Sharda Vashisth**, Associate Professor, appointed as Head, Dept of EECE on 25 Sept 2017.
- **Dr Payal Khurana**, Assistant Professor, appointed as Officiating Head, Centre for Languages Learning on 4 January 2017.

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 provided to faculty members for attending national and international conferences/seminars/symposia etc.

Seminar on "National Convention on Digital Initiatives"

Pro Vice-Chancellor attended the two days National Convention on Digital Initiatives on Higher Education from 09-10 July 2017. Three major initiatives in digitally delivered education i.e. SWAYAM, SWAYAM PRABHA and National Academic Depository (NAD) were launched. Pro Vice-Chancellor delivered a presentation on NCU's Digital initiatives to the Vice Chancellors of Private Universities in the presence of the Hon'ble Minister HRD, Chairman UGC, and Secretary by MHRD.

Teacher's Day Celebrations

The University celebrated Teacher's Day on 5 September 2017 to honour the teachers for their praiseworthy contribution to the University. Dr Ambika Devi and Dr Phool Singh, Dept of APS; Dr Latika Singh, Dept of CSE & IT and Dr Sharda Vashisth, Dept of EECE received the Best Teacher Award for having displayed outstanding performance through inspirational and innovative teaching, effective communication, class participation, passion and commitment with strong focus on both teaching and research. Each awardee received Lifestyle gift vouchers for Rs 20,000/-.

Dr Ambika Devi
Applied Sciences

Dr Phool Singh
Applied Sciences

Dr Latika Singh
CSE&IT

Dr Sharda Vashisth
EECE

Women's Cell Events

To celebrate the spirit of women empowerment on International Women's Day, the University organized a panel discussion on 'Gender Equality and Women Empowerment' in collaboration with Brahma Kumaris and Gurugram Police on 11 Mar 2017 at the NCU campus. The event was organized in continuation with the joint campaign titled 'Sashakt Neev' on gender equality, women respect and empowerment led by Brahma Kumaris and Gurugram Police. The aim of the panel discussion was to bring social awareness about issues such as gender equality, women empowerment, prevailing laws, role of media, breaking stereotypes etc. and to give a push to people for changing their mindsets. The change needs to happen right from childhood in our educational institutions so as to form the right attitude in the mindset of the youth. Therefore, the faculty and staff should have right understanding of such issues so that they can impart the same to their students. Mr Sumit Kumar, DCP West Gurugram, Gurugram Police; Dr Suresh K Verma, Professor, Mass Communications, Jamia Millia Islamia University; Dr Sujatha Sharma, Clinical Psychologist and Sister Urmil, Director, Rajyoga Center- Brahma Kumaris formed the panel.

The University has tied up with IBM Career Education Programme and is running courses in Emerging Technologies

Medical

The Medical Insurance cover continued as in earlier years with medical cover up to Rs Five Lakhs for faculty and staff as cashless medical treatment on hospitalization for self and dependent family.

• A Preventive Health Check Camp, Nivaran-III was held at the University on 18 January 2017 in the format of a diagnostic campaign to make students and staff aware about their role in the prevention of diseases and for maintaining a healthy lifestyle. The screening/diagnostic campaign was conducted in association with Mantracare, a major Diagnostic Centre.

• Nivaran – IV Spirometry Test Camp was organized on 30 August 2017 at the University campus. The camp was conducted with the objective of creating awareness about tests for the diagnosis of asthma, chronic obstructive pulmonary disease (COPD) and other conditions that affect breathing. The screening/diagnostic campaign was conducted in association with CIPLA.

• In line with NCU 's commitment towards 'Disease free Fraternity' a free of cost Diagnostic Camp was organised in a tie up with Vijaya Diagnostic Centre on 5 February 2017. The camp was undertaken in the format of a diagnostic campaign for lipid and diabetes management and to make people aware about their role in prevention of several diseases by maintaining a healthy lifestyle. Another free of cost Diagnostic Camp was organised in the format of a diagnostic campaign for Blood Sugar and Haemoglobin in a tie up with Vijaya Diagnostic Centre on 22 September 2017.

- As a part of NCU's community outreach programme to make women above the age of 40 years aware about their role in the prevention of terminal diseases that are rampantly on the rise, a Mammography Diagnostic Camp was conducted on 26 April 2017. The screening/diagnostics were conducted in partnership with Rotary Club, bringing specialized investigations free of cost, right at the doorstep of the University for female faculty and staff of the University. Also, as a part of spreading awareness about female health hazards, highly informative talks on Breast Cancer and Cervical Cancer were delivered by Rotarians Dr Pushpa Sethi and Dr Indu Aggarwal from Cloud 9, Gurugram and Rajiv Gandhi Cancer Institute & Research Centre respectively to students and staff of NCU.

Blood Donation Day

To celebrate Blood Donation Day on 14 June 2017 the University and Columbia Asia Hospital, Gurugram jointly promoted blood donation to make Old Gurugram free from blood procurement/provisioning challenges during medical exigencies. The event was marked by motivational talks to donate blood followed by a blood donation camp.

Psychological cum Counsellor Services

An increasing number of college/university students are under mental stress which could be academic or non-academic. Students generally face problems adjusting with family and friends as well as having issues relating to their career goals. At this stage of life they are unable to regulate their emotions and often find it difficult to emotionally unburden themselves. They are anxious, avoid everyday social activities which in turn interferes with their academic, social and family life. NCU's Psychological cum Counsellor services help students and faculty cope with stress as well as emotional and relational issues.

- **Workshop on relationships**

A workshop on 'Thinking beyond yourself with empathy and compassion' was conducted by Ms Sonia Puar on 25 February 2017 for faculty, admin and technical staff of the University. The objective of the workshop was to focus on 'apathy' a disturbing pattern in society. The workshop intended to re-sensitize us and reflected on how we are impacting others and how we can find a way to create warmth and respect in our interactions with others.

- **Talk on Depression**

A talk on 'depression' by Dr Shweta Sharma, Psychologist, Columbia Asia Hospital was delivered on 7 April 2017 on the occasion of World Health Day. Dr Sharma explained about depression and spoke about risk factors, treatment options, self-help, coping skills and how to help someone with depression.

- **Talk on 'Work-Life Balance'**

The NorthCap University in collaboration with Brahma Kumaris, Gurugram and RITES organized a talk on 'Work-Life Balance' by Sister Shivani on 29 April 2017. Speaking to a packed audience she said that in order to lead a peaceful life one should control their mind and thoughts. Once you accept yourself, you open the door to change. The event was attended by a number of families of NCU, RITES and Brahma Kumaris.

NCU's Psychological cum Counsellor services help students and faculty cope with stress as well as emotional and relational issues

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
- Teacher's day awards
- Mentor-Mentee Scheme for faculty
- Special Casual Leave, Sabbatical Leave, Vacation Leave
- Faculty encouraged to pursue PhD (34 % faculty are pursuing PhD & 57 % faculty are PhDs)
- Equal opportunity employer; current female ratio is 63%
- Ethics & Anti Plagiarism Policy in place
- Day Care crèche for children
- A structured induction programme for faculty
- Medical Care & Counselling Centre

Faculty Development Programmes

The ongoing personal and professional growth of the faculty is a matter of priority for the University. Towards this end, the FDC of the University regularly conducts Faculty Development Programmes (FDP) to help the faculty develop as scholars, publish, share insights within the faculty community and at professional conferences and enrich the learning processes at the University.

A University level six day Faculty Development Programme was conducted on wide ranging topics from 8 -14 December 2016. Faculty from all the Schools and Departments participated in the FDP and gained from the insights of senior academicians and industry experts. Week long Faculty Development Programmes on different topics were organized by all the departments of the University in December 2016 after the University level FDP. The aim of these FDPs was to motivate and inspire the faculty members to pursue best academic practices in their fields. Interaction with speakers was enlightening for the attendees.

A six day FDP from 5-10 June 2017 was organized by each Department/School at NCU:

The Dept of EECE organized the FDP on 'New technology areas introduced in course curriculum' to make faculty aware of the new scheme designed for course curriculum including subjects from new technology areas like IoT, 5th Generation of Mobile Communication, Machine Learning, 3D Printing and Digital Marketing etc. for better learning processes at the Department.

The Dept of CSE&IT had an FDP on 'Internet of Things' conducted by one of the leading training institutes in India for IoT i.e. 'Collabera TACT' Vadodara. Advanced concepts and design methodologies in designing IoT Systems were explained.

The Dept of CEE had the six day FDP on skill enhancement. It was a mixed bag of events like special lectures by industry experts, software trainings, industry visits, discussions on the strategic plan and department tracker, meditation sessions, sessions by eminent speakers from the Government sector, recreational activities etc.

The Dept of ME organized the FDP to bridge the gap between the industry and academia and to enhance the learning processes at the Department. Besides lectures and discussions, industrial visits were also conducted. Prof. R Singh, Academy Professor, Dept of Mechanical & Aero Engineering, The Ohio State University, Columbus, USA and Honorary Faculty Emeritus, NCU conducted a session on research, funding and publications. Prof. R Singh also conducted a session on the topic 'Effective teaching learning process and faculty mentoring and research' on 9 May 2017.

The FDP at the Dept of APS focused on the state-of-the-art tools for learning processes and research. The overall goal of the FDP was the enrichment of the faculty and to learn SCILAB for the lab component of Mathematics-I introduced in the curriculum of BTech. Sessions on latest tools for research such as Mendeley and Science Direct were conducted by experts from eminent institutes.

FDP on 'Emerging Trends and Challenges in Teaching' was organised by the Centre for Languages Learning (CLL). Eminent academicians delivered expert lectures such as Prof Harish Narang on 'Language, Culture and Society', Ms Kritika Gupta and Ms Vinita Upreti on 'YOGA and effective teaching'.

The School of Management's FDP consisted of sessions on 'LaTeX', expert counselling psychologist, Mr Satish Kaushik talked about profiling of students by teachers as a preliminary step towards effective learning by students. Problems faced by PhD researchers, coping strategies to enhance performance, scientific ways of writing a case study etc. were also discussed.

The Centre for Post-Graduate Legal Studies at the School of Law organized an FDP on 'Legal Research and Teaching Methodologies in Contemporary Era'. The aim of the FDP was to provide better understanding about various methods of research and to create awareness about the role of legal research in the development of law.

Orientation FDP for new faculty members

The University organized a Faculty Orientation Programme to interact with all new joinees on one common platform on 9 August 2017. The programme acquainted the new faculty members with the key aspects of processes and their functioning in various domains at the University.

Orientation Programme for Administrative & Security Staff

An Orientation Programme for Administrative and Security Staff was conducted in three batches on the topic 'Achieving Service Excellence' from 23-24 Sept; 7-8 Oct and 14-15 Oct 2017.

The ongoing professional growth of the faculty is a matter of priority for the University

FunCU Masti at the University

To bring all faculty, technical and admin staff together for informal get-togethers FunCU Masti screened the movie 'The Conjuring 2' on 28 Jan 2017. Due to the cold weather this was an indoor event which was enjoyed by the faculty and staff of the University. On 25 Feb 2017 Team FunCU organized another indoor event in the University cafeteria for the faculty and staff of the University. The programme 'Today is Saturday a fun filled day' comprised of fun activities like candle lighting, blowing balloons and musical chairs. The participants enjoyed the events in a musical ambience and had fun participating in activities and cheering up the participants.

International Faculty Academic Visits

*   **Prof. Bruce Seely**, Dean, Michigan Technological University, USA visited the University on 28 September 2017 and had detailed discussions on student and faculty exchange programme. The collaboration which is currently with the Dept of CSE&IT has been extended to other Schools and Department as well. Prof. Seely had an interactive session with engineering students.

*   **Prof. R Singh**, Academy Professor, Dept of Mechanical & Aero Engineering, The Ohio State University, Columbus, USA and Honorary Faculty Emeritus, NCU conducted an FDP at the Dept of ME on 9 May and 5 June 2017.

*   **Dr Paul H Benson**, Provost, Dayton University, Ohio, USA visited the University and a Partnership Agreement was signed between The NorthCap University and the University of Dayton, Ohio, on 15 May 2017 to undertake joint collaborative research and for students and faculty exchange.

*   **Prof. Andrew Sturdy**, Head, Dept of Management, University of Bristol, UK, delivered a lecture on 'Management Ideas: To attain a competitive edge' on 3 May 2017.

The University continues to host International Faculty Academic visits through the year

*   **Dr Michael Hantke**, Chief Justice, Third Environment Court, Valdivia, Chile accompanied by Professor Stephen Stec, Professor, Central European University, Budapest, Hungary addressed the students on practical issues about the relationship of justice delivery and economics on 28 March 2017.

*   **Prof. Vijayan K Asari**, Department of Electrical and Computer Engineering, University of Dayton, Ohio, USA, delivered a lecture entitled 'Machine Learning and its Real Time Applications' on 1 March 2017.

*   **Dr Glenwood Irons**, Vice President-International, Global Tutoring Hub, a Barbados based corporation focused on worldwide delivery of education visited the University on 17 February 2017.

*   **Dr Tom Nolan**, International Academic Network Manager, Institute of Technology Blanchardstown (ITB), Dublin, Ireland visited the University on 24 February 2017 to review the ongoing collaboration between the two institutions and to discuss the roadmap for expansion in the collaboration domain.

- Delegates of UK Law Mission viz., **Prof. Mark Wing**, Southampton Solent University; **Prof. Paul Arnell**, Robert Gordon University and **Prof. Andy Unger**, London South Bank University visited the University on 14 February 2017 and delivered lectures on the emerging areas of IPR, Extradition and Human Rights.

- **Dr Pankaj Attri**, Research Professor, Plasma Bioscience Research Center and Assistant Professor, Dept of Electrical and Biological Physics, Kwangwoon University, Seoul (South Korea) delivered a guest lecture on 'Plasma Technology : A Greener Remediation for Environmental and Health Problems' on 25 Jan 2017.

- **Ms Stephanie Thompson**, Vice- Chair Students, Quality Management Division, ASQ was at The NorthCap University on 22 December 2016 and had an interactive session with our ASQ-NCU Student Chapter.

Research and Development

Central Research Facility

Research activities at the Central Research Facility (CRF) have gained momentum and depth during the reporting year. CRF was equipped with three state-of-the-art equipments viz., Scanning Electron Microscope (SEM), Holography Set Up and Solar Simulator in 2017. The Tungsten Filament based SEM is of immense importance to experimentalists working in the area of Materials Science and Thin Films to estimate the shape, size of particles and surface morphology of films. Alfatech Services gave hands on training on SEM to research scholars and faculty team, Dept of APS on 4 May 2017. Several faculty members are utilizing this Facility to pursue their research work. Eight PhD scholars, five PG and five UG students are currently pursuing research at CRF on topics such as solar energy, thin films and polymer nanocomposites. A training programme was organized for faculty and research scholars in the use of various advanced and analytical instruments for research at CRF on 5 August 2017.
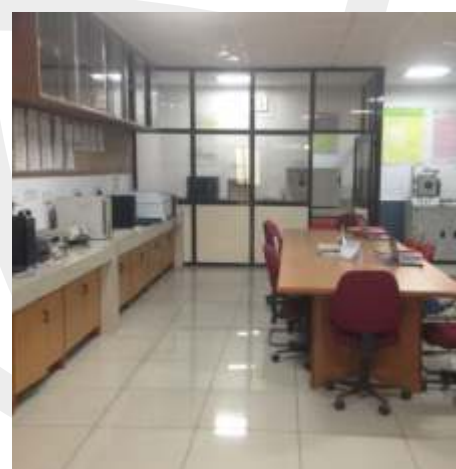
Completed Sponsored Research Projects

S.No	PI & Department	Project Title	Scheme	Duration (yrs)	Date of Sanction	Date on which Funds Received	Total Funds Received (Rs. Lakhs)
1	Dr Dipti Vaya, Co-PI: Dr Tejpal Singh Chundawat (APS)	Development of Polyurethane coating for blast mitigation.	DRDO (CARS)	1.5	13.11.14	21.04.15	9.99

Ongoing Sponsored Research Projects

S.No	PI & Department	Project Title	Scheme	Duration (yrs)	Date of Sanction	Total Funds Received (Rs. Lakhs)
1	Dr Deepika Chaudhary (APS)	Study of optical and electrical properties of nanostructured glasses for application in optical recording media	DST (WOSA)	3	13.05.15	30.03
2	Dr Phool Singh (APS) & Co-PI: Ms Jyotsna Singh (CSE)	A computational model for STN (sub thalamic nucleus) in Parkinson Disease to investigate the discharge patterns	DST (CSRI)	3	09.07.15	19.31
3	Ms Rita Chhikara (CSE)	Neural network based steganalysis	DST (WOSA)	3	26.06.15	20.51
4	Ms Vaishali Sahu (CE)	Experimental and Numerical Study of Single Pile Capacity Adjacent to Existing Buried Pile System	DST (WOSA)	3	16.11.15	25.41
5	Dr Akansha Singh (PI), Co-PI: Dr Latika Singh, Ms Sumanlata Gautam (CSE)	Emotion recognition system for autistic children	DST (CSRI)	3	11.05.16	18.27
6	Ms Chetna Tyagi (APS)	Study of Polymer nanocomposites for solar cell applications	DST (WOSA)	3	31.05.16	24.30
7	Dr Aditya Sharma (APS)	Lateral Flow Assay Strip Sensor Development for Non-Invasive Point of Care Diagnosis of Urinary Tract Infection	DST (SERB) Young Scientist	3	29.06.16	42.02
8	Ms Geetika (CSE)	Phylogenetic Model for cancer classification	DST (WOSA)	3	16.08.16	18.90
9	Ms Pooja Sabharwal (ECE)	Delineation of QRS complex for feature extraction of Myocardial Infarction in single lead ECG signal	DST (WOSA)	3	12.05.16	18.15
		Total				**2.16 Crore**

- During the reporting year, nine research projects for a total amount of Rs 2.16 crore have been sanctioned by funding agencies and Rs 1.28 crore has been received till date. One DRDO (CARS) project of 9.99 Lakhs has been completed in 2017. In addition to these, 14 research projects (from December 2016 to 1 November 2017) have been submitted to various funding agencies.

- Our faculty members have been actively participating in national and international conferences and seminars in India and abroad during the year. As a result, 188 journal papers have been published in refereed journals (from December 2016 to 1 November 2017). Year 2017 has been a productive year for books/book chapters and journal publications by the faculty, the details of which are placed at the end of the Report for reference.

- A contingency grant of Rs 25,000 each to full-time Doctoral research students is being funded to facilitate research carried out by scholars.
- 140 doctoral students are currently registered with the University to carry out their doctoral dissertation research work: SOET-110, SOL-16, SOM-14. Seven students have submitted PhD theses and four have submitted PhD synopsis, during the year.
- NCU continues use of proprietary software, Turnitin, to vet all theses, publications and documents to guard against plagiarism. Guidelines for checking plagiarism were reissued during the reporting year and meticulously followed, with no case of plagiarism.
- NCU has strengthened academic and industrial collaboration with various universities/institutes/ industry. 22 Partnership Agreements are currently active.
- Sabbatical leave continues to motivate research for all regular faculty members who have completed ten years of continuous service. It can be availed for a period of six months or one year, once in seven years. A high quality research publication, after availing the sabbatical leave, is an expected outcome of such a programme.

S.No	Name of Faculty	Title of Consultancy	Name of Organization/Company	Fund Sanctioned (In. Rs.)	Fund Received (In. Rs.)
			Consultancy Details (Dec 2016-1 Nov 2017)		
1	Ms Prerna Chauhan (CLL)	Communication Skills Programme	LIRIK Infotech Pvt Ltd., Gurugram	43,200.00	43,200.00
2	Dr Divyabha Dr Payal Khurana (CLL)	Business Communication	Dura Heatex India Pvt. Ltd., Gurugram	8,000.00	8,000.00
3	Dr Jaya Ahuja and Dr Saumya Dixit (SOM)	Entrepreneurship Awareness Camp (EAC)	DST-NIMAT Project	60,000.00	30,000.00
Total				**1,11,200.00**	**81,200.00**

No of Students	Department	Broad Area
		PhD Scholars and Broad Area of Research 2017
48	**Computer Sciences & Engineering and Information Technology**	Data Mining, Speech Processing, Computational Neurosciences, Wireless Sensor Networks, Soft Computing, Data clustering, Software Engineering, Signal Processing, Computer Networks, Data Analytics, Mobile Ad Hoc Networks and Computer Network, Big Data Analytics, Cyber Security, Big Data and Machine Learning
19	**Applied Sciences**	Data Analytics, Nano Sciences, Fluid Mechanics, Green Chemistry, Material Science, Mathematics, Nanomaterials and solar cells, Micro-algae studies, Micro-Biology, Polymer Nano Composite, Optimization Technique & Applications, Nano Materials and Solar Cells
29	**Electrical, Electronics & Communication Engineering**	Control Systems, Photovoltaics, Wireless Communication, Electronic Devices, VLSI, Signal Processing, Power control System, Electronic Devices and Image Processing, Power Distribution System, Optical Wireless communication, Signal ,Speech and Image Processing, Face Recognition, Mobile Biometrics, Synthesis and Characterization, Power Generation, Load Frequency Control, Memristors
9	**Mechanical Engineering**	Fluid Mechanics, Industrial Engineering, Mechatronics, Thermo Fluid Engineering, Stock Development consumption & waste Mgt., Supply Chain Management
7	**Civil Engineering**	Environmental Engineering, Concrete Technology, Geotechnical Engineering, Hydrology and remote Sensing,
14	**Management**	Finance, Human Resource Management, Retail Marketing, Marketing, Entrepreneurship, Knowledge Management, Rural Marketing, Operations Management
16	**Law**	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
1	**Centre for Languages Learning**	Finance, Human Resource Management, Retail Marketing, Marketing, Entrepreneurship, Knowledge Management, Rural Marketing, Operations Management

UG Labs	PG Labs	Research Labs	Total
	Number of Laboratories on campus		
48	12	8	68

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.

itb Institute of Technology Blanchardstown	**ITB Ireland:** The University has an effective MoU in place with ITB Ireland and is collaborating significantly in the mobility of students and faculty. The first students exchange started in September 2011 for a semester abroad programme. Various collaborative schemes for UG and PG students continue to be rolled out.
University of Chester	**University of Chester:** An MoU with the University of Chester, UK, was signed in 2012. The Chester Business School has over 1500 students with campuses at Chester and Warrington, and has a good reputation at undergraduate and postgraduate-level courses.
University of Regina	NCU students of MTech ECE and CSE are eligible to apply for a Master of Engineering degree in Electronics Systems Engineering and in Software Systems Engineering, respectively. Selected students proceed to University of Regina, Canada after 2 semesters and get a Canadian degree in Master of Engineering.
Michigan Technological University logo	**Michigan Technological University:** An MoU with the University of Michigan Technological University Houghton, Michigan, USA was signed in March 2016, to implement the 3+1+1 programme in Computer Science & Engineering.
IBM®	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.
पावरग्रिड	**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 CIArb	**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.
The Association of Commonwealth Universities	**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.

Collaborations

	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 stutus 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.
	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.

IT, Physical Infrastructure & Library

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.*

*To identify
a long term,
sustainable and
accessible
solution that
addresses increasing
demands for
storage and
the integration and
interoperability
of our ICT systems*

Resource	Available
Computers	959
System & Application Software	55
Printers	112
Lan & Internet	Available on systems
Mail Server & Client	Using Google Apps from Google
Internet Bandwidth	60 MBPS

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 60 MBPS dedicated leased line, digital and multimedia library, networked computer labs and Wi-Fi hostels. NCU has received approval for National Knowledge Network (NKN) 1GBPS internet connectivity which will be commissioned by the end of the year.

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. 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:

- Online Admission Portal
- Complete Student Record
- Student Fee Portal
- Registration of Semester Courses by Students
- Generation of Time Table
- Management of Attendance by Faculty
- Integration of Attendance through Bio-metric Attendance System
- Attendance Reports including Mid-Term and Final Reports (less than 70%).
- Generation of Admit Cards for Examination
- Student-Faculty Feedback Form
- Declaration of Results
- Generation of Detailed Grade Sheets
- Placement Portal
- HRMS Portal

In a fully wi-fi enabled campus, NCU has upgraded to the 'dynamic host configuration protocol'

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, 68 labs, 25 workshops, faculty cabins, seminar hall, conference rooms, media room, a 450 seat state-of-the- art auditorium and a double basement parking. Departments, faculties, laboratories and facilities have been further strengthened during the reporting year.

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

The University is only a 20 minutes drive from the international airport and 10 minutes away from the nearest metro station

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.
- **Sewage management:** Garbage handed over to MCG for proper disposal. No hazardous waste produced on campus. 100 KLD sewage treatment plant to ensure zero discharge to municipal sewer line with plans to use treated water for horticulture.
- **Efforts for Carbon neutrality:** Green foot print through 6 acres of green area out of 10 acre campus area.
- **Plantations:** Lush green gardens all around the campus. 16th consecutive year NCU a winner of HUDA garden competition in Gurgaon.
- **Odd-even scheme for vehicles:** Ongoing scheme for reducing emissions thereby reducing air pollution.
- **Pollution Checking Centre:** Set up on the campus to check emission levels of vehicles parked at the University.
- **E-waste management:** E-waste is segregated and reused where relevant or handed over responsibly to external vendors.

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 management. It has a rich collection of books, journals and online resources. Currently, the LIRC has a collection of over 100,000 volumes (including Book Bank) in all areas of Engineering, Law, Sciences and Management. LIRC subscribes to over 170 print journals from reputed publishers, institutions, societies like Indian Academy of Science journals, IIMB Management Review, Decision, Vision, Harvard Business Review, BCI Journal, etc. LIRC has fully computerized its services with the Libsys 4 Software. The circulation of books is done with the bar-coded system placed on each book and an RFID system is planned in the future. The salient progress during the year has been as follows:

- Extending support to the Government's campaign of 'Digital India' LIRC launched the first University Library Android mobile app which is available free of cost for download at Google Play Store so that users can access library resources 24x7 through their mobiles.

- LIRC joined INFLIBNET Shodganga theses repository (an initiative of UGC). It provides full text access to the theses published in Indian universities, including those recently completed at NCU. During the reporting year 10 theses have been uploaded on Shodganga.

- To augment its resources, LIRC took membership 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.

- LIRC has increased the reading room timings up to 10.00 pm. The library timings now are from 8.00 am to 10.00 pm on all teaching days.

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

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

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

The LIRC has a collection of over 100,000 volumes in all areas of Engineering, Law, Sciences and Management

Discipline	No. of Books	No. of Journals		
		National	International	International Online
Engineering & Sciences	53484	65	34	IEEE: 800+, ASME: 27, ASCE : 36
Management	5018	32	12	ABI/INFORM: 6045 SAGE: 19
Law	4220	26	05	LEXIS NEXIS: 500+ MANUPATRA: 07

The details of facilities provided by the LIRC are as under:

- **Online Renewal of Books:** LIRC provides facility for 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 www.library.ncuindia.edu.

- **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 Encyclopedia of Science and Technology' and many other important reference books for users.

- **DELNET (Developing Libraries Network):** In this information age, no library is self-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.

- **Knimbus Federated Search Engine:** The LIRC has also subscribed to an aggregated search engine KNIMBUS for single window access to all e- resources.

- **E-brary (E-books Database):** LIRC subscribes to the E-brary e-books database which has a collection of 1,34,000 e-books in full text. These books are related to the areas of engineering, law, management, applied sciences and general collection books. This database has many advanced features like download of books, creating bookshelves within the database etc.

- **Book Bank:** A book bank facility is available for students of the School of Engineering and Technology and School of Management. Students can join the book bank membership by paying a nominal amount, and can take five books in each semester for permanent retention.

- **LIRC Web Page:** Informs students about the resources subscribed to by LIRC and information on print books available in the library.

- **Online Resources:** LIRC subscribes to online electronic resources e.g. The IEEE Explore, American Society of Civil Engineers (ASCE), American Society of Mechanical Engineers (ASME), SAGE Journals,   Proquest ABI/INFORM, Lexis Nexis, MANUPATRA etc.

- **Remote Access Facility:** Remote access facility to access all online resources is also provided. With the help of a VPN user ID and password, users can access all subscribed resources from anywhere, 24X7.

NCU LIRC is a member of DELNET - a national network of libraries that promotes a culture of resource sharing

Beyond the Classroom

- **NCU students win in an international event in China**
- NCU's Team 'TVN' comprising of Tanyam Popli, Vibhor Mittal and Shivam Nautiyal (ME) competed in a global environment and won the 2nd Prize, the 'Excellence Award' in the Delta Cup 2017 for their project titled 'Self-Check-out System in Retail' based on Smart Machines, Smart Robots and Smart Manufacturing using Delta Electronics components held in China from 23-26 July 2017. The expert panel highly appreciated the efforts of Team TVN for their concept, design and technical knowledge about the system. Team TVN received a trophy and won a cash prize worth 2000 RMB, apart from 300 RMB for securing a place in the Top 10 in online voting. More than 75 Asian teams from China, Taiwan, India and Thailand competed and this was the first time when India participated in the 'Delta Cup'.

NCU students win in an international event in China

- **NCU student wins 3rd Prize in the Indian International Science Festival**

  Shrey Malhotra, BTech (ECE), bagged the 3rd Prize and a cash award of Rs 52,000 in the 3rd Indian International Science Festival (IISF) held at Chennai from 13-16 October 2017. The event was supported by a number of Ministries of the Govt of India and AICTE.

- **Google Summer of Code (GSoC) 2017**

  Akarshan Gandotra and **Harsh Lathwal**, BTech (CSE-Class of 2018) successfully completed Google Summer of Code (GSoC) 2017, an international annual programme organized by Google to bring more students to open source development. Over 20,651 students from 144 countries registered for the GSoC 2017 programme out of which only 1,318 students were accepted from 575 universities all over the world. NCU students were able to make a mark in this programme in their maiden attempt and both the students received $2400 as stipend for their projects, a referral for a job or internship at Google and an opportunity for a meet-up with the Google team at San Francisco Bay Area.

- **NCU student represents India at Ultrahack in Helsinki, Finland**
  Pranav Jain, CSE, (Class of 2017) was invited as a mentor to Helsinki, Finland to represent India at Ultrahack 2016, a global three day hackathon that aims at bringing together developers, startups and corporations to solve world-class challenges with the latest technologies. Pranav was a participant at the Ultrahack last year also. He was also invited to the Slush conference, one of the largest technological event in Europe. Pranav was selected to the Jagriti Yatra 2016 as well for which he received a 50% scholarship from them.

  Pranav participated in the 5GFWD Hackathon in Oulu, Finland and also spoke at the EuCNC Conference, Finland and shared his ideas with teams from countries of Asia, Europe, USA and even as far as Brazil, held from 9-11 June 2017. Pranav won the first prize of Euros 10000 in both the competitions, 5G Hackathon 2017 and OYS Challenge 2017. Only a selected few students from across the globe get the opportunity to participate in these competitions.

- **NCU students attend FOSSASIA 2017**

  Urvika Gola and **Pranav Jain** (CSE) delivered sessions at FOSSASIA 2017 conference at Singapore from 17-19 March 2017. Speakers at FOSSASIA summit are usually industry leaders from Google, UNESCO, IBM etc.

  Urvika Gola and Pranav Jain attended the Debian's Annual Conference at Montreal, Canada from 6-12 August 2017 and spoke about their open source contributions and their work as an Outreachy and GSoC Intern.

- **ASQ-NCU Chapter Chair participates in ASQ Symposium 2017**

  Shringa Vatas, Chapter Chair, ASQ-NCU Chapter 2017 was recently appointed as the Student Deputy, NextGen, Quality Management Division, ASQ Global. This position aims at connecting students with quality leaders of today to get quality leaders of tomorrow. Under this position Shringa and Ms Stephanie Thompson, Chair, NextGen were invited by ASQ, Ahmedabad to attend a series of events at Vadodara, Gandhinagar and Rajkot from 17-20 August 2017. Shringa shared her ideas and viewpoints in the ASQ Symposium 2017 and shall be representing the ASQ-NCU Chapter in the International Conference at Ahmedabad in November 2017.

Pranav Jain

- **NCU-OSA Student Chapter represented at Washington, DC**

  Nishant Sachdeva, BTech (CSE) 2nd Sem, represented NCU's OSA Student Chapter at the 2017 Frontiers in Optics + Laser Science (FiO + LS) Conference in Washington, DC, USA from 17-21 September 2017 which featured the latest in optics and photonics research and technology. It provided Nishant an opportunity to network, present, learn, and connect with scientists from around the world.

  OSA Student Chapter in its initiative to reach out to various educational institutions conducted an outreach programme at DPSG School Gurugram on 7 Sept 2017 to provide information about OSA, its programmes and introduce magazines on optics and photonics, provided by OSA.

  The OSA Student Chapter of NCU successfully conducted its first ever photography competition 'FLASH IT' on the themes 'Physics in our daily life' and 'Summers Begin' on 18 April 2017. Winners were Raghav Khanna (CSE), Harsh Sharma (ME) and Runners-up were Bhaviya Batra and Ayush Mehta (CSE).

Urvika Gola

- **Fresher's Party**

  The University organized a welcome party for the new batch of students on 15 September 2017. Freshers of all the three Schools participated in an ambience of fun, frolic, dance and laughter. The fresh batch put up an attractive and stimulating fashion show on the theme 'Superheroes with Wizardly Touch'.

- **Enactus NCU win KPMG Business Ethics Grant**

  Enactus NCU won the KPMG Business Ethics Grant 2016 of Rs 50,000/- for its new project 'Inaayat', a project of making pencils from newspapers so as to reduce the number of trees which are cut down for the purpose, reduce carbon footprint and to generate new employment opportunities for the differently abled people. For the same project Enactus NCU received the Walmart Women Economic Award 2016-17 of Rs 20,000/- in November 2016. 'Inayat' was also awarded the 'Spirit of Enactus Award 2017' and it continues to make a significant impact on the lives it aims to touch and gives them a whole new incentive to strive for.

  Enactus NCU launched a book entitled 'Gurugram Handbook on Waste Management 2017-18' in collaboration with the NGO 'Gurgaon First' on 17 March 2017. An Orientation Programme for new joinees of Enactus NCU was organized on 4 August 2017 to motivate them to work for the betterment of the society and strive to spread happiness in every part of the world.

- **Computer Society of India (CSI) Student Chapter**

  CSI Student Chapter organized workshops on Game Development and Internet of Things (IoT) for students of BTech (CSE) from 12-17 December 2016. The students developed interesting games and also built security systems using IoT. CSI Student Chapter organized a gaming event on 9 February 2017, during the Club Week. The objective of the event was to motivate students to learn and apply current trends in games which were developed by CSE 1st Year students. CSI Student Chapter organized an awareness session for 1st and 2nd Year CSE students on 7 Feb 2017 to make students aware of competitions and opportunities for which they should gear themselves up. CSI Student Chapter conducted an interactive session on Google Summer of Code (GSoC) programme on 7 September 2017.

  Abhay Abraham and **Urvika Gola** (CSE) had an interactive session with CSI 1st and 2nd Year students. Abhay gave a live-demo on how to get started with competitive programming by enrolling on platforms like 'HackerRank' and introduced LISP programming language. Urvika talked about her experiences being an Open Source Developer at Outreachy as an intern. She explained 'How to get started with Open Source' and briefed about the selection procedure and her work using Android Development and Java.

  CSI Student Chapter organized a gaming session and drawing competition at NCU for the children of Shakuntalam Shiksha Kendra (school for underprivileged kids), Gurugram, on 23 March 2017. The objective of the event was to sensitize NCU students towards their social responsibilities and make them aware of the needs of the society.

  To enhance programming skills and to boost the confidence of the students in coding, CSI Student Chapter conducted a Coding Competition on 22 March 2017. The winners of the event were: 1st Aadish Goel, 2nd Ayush Singh Rathore, 3rd Rohit. A team comprising of Aaditya Verma, Abhishek Jain and Ravi Rathee (CSE) participated in an Inter-College Technical Fest at Manav Rachna International University on 28 February 2017. The team secured First position in the 'Technical Quiz' and Aaditya Verma bagged the Second prize in 'Programming Logic'.

Enactus NCU won the KPMG Business Ethics Grant 2016 for a project to make pencils from newspapers instead of felling more trees for the same purpose

- **Mathemactive Society**

  NCU's Mathemactive Society organized a multi round aptitude as well as mathematics quiz competition named 'Exponent' for BTech, BSc Maths (H), MSc Maths, BBA 1st Year students on 11 September 2017. The event was a multilevel quiz game based on maths and mental ability. The participants were judged on the basis of their skill and ability to cope up on time. The 1st Prize was won by Ananda (BTech, CSE), 2nd Prize by Kushagr (BTech, CSE) and 3rd Prize by Mahesh Yadav (MSc, Maths).

- **Synergy Club**

  Synergy Club, SOM organized 'A Case Study Analysis Competition' on 13 September 2017 for students of BBA, BCom, MBA and BSc Eco (H). The objective of the competition was to introduce the practical applications of core management principles studied in the classroom and encourage students to provide practical suggestions on how to improve corporate management functions.

- **NCU celebrates Road Safety Week-2017**

  To create awareness about road safety measures, the University, organized a 'Road Safety Week' from 11-17 January 2017 as part of the National Road Safety Week. The event was organized in association with the Secretary, Regional Transport Authority (RTA), Gurugram.

  In response to the serious need and concern to make the youth understand about the importance of road safety the Indian Road Safety Campaign (IRSC) Students Chapter, Dept of CEE, NCU conducted a series of events in SBY Govt Sr Sec School, Gurugram on 13 Sept 2017.

- **NCU's first student magazine 'Hashtag'** Students of NCU launched their first student magazine titled 'Hashtag' with Mandeep Lakra (CSE) as its President, on 24 January 2017. Hashtag gives the students a platform to exchange ideas and information on various socio-economic issues and scientific developments at the national and international level.

- **Club Fiesta 2K17 – Make it Spark**

  The University celebrated 'Club Fiesta 2k17 - Make it Spark' on 10 February 2017. It saw a culmination to the week-long activities organized by various student clubs of the University. During the Club Week, conducted from 6-10 February 2017, all the student clubs of the University organized extracurricular activities and competitions which were technical and non-technical.

- **Edu-Recreation Club**

  NCU's Edu-Recreation Club organized a trip to Goa for all the pre final and final year students of the University. 87 students joined this trip from 13 - 19 December 2016. A trip to Manali was organized from 22-27 March 2017 in which 22 students from across the different Schools joined the excursion along with faculty and staff coordinators. 'Trekkers of NCU' organized a trekking expedition at 7700 feet (2300 Metres) inside the magical valley of Barot, on the outskirts of Nargu Wildlife Sanctuary, Mandi, Himachal Pradesh from 25-28 May 2017. A breathtaking trekking expedition to the magical valley of Thachi, Mandi, Himachal Pradesh at a height of 3000 mtr was organized for the 'Trekkers of NCU' comprising of enthusiastic students, faculty and alumni from 28 Sept to 2 Oct 2017.

- **National Science Day Celebrations**

  To spread the message about the importance of science and its applications among people, the Dept of Applied Sciences in collaboration with the Metrology Society of India (MSI) organized the National Science Day on 28 February 2017. On this occasion UG, PG and PhD students of the University and about 160 students of 9 to 12 classes from various schools in Gurugram demonstrated their innovative ideas in the form of science projects, models and posters. The event aimed at motivating school children to take up science in their higher studies and thereby contribute to the National Mission on Science.

- **NCU Projects win National Student Project Exhibition on Engineering Design (SPEED)**

  NCU team bagged three prizes in the 3rd National Student Project Exhibition on Engineering Design (SPEED) among 36 colleges and more than 150 projects on display at Gurugram on 17 Feb 2017. NCU project 'SUPRA VEHICLE' won the Best Project in Mechanical and Civil Engineering category. 'Coconut Opener' won the Best Project in the Open category, while the 'IoT Device for home automation' won the Best Project in electronics engineering.

- **Team Alacrity**

  NCU's team Alacrity of SAE Society secured 1st position in the Pre Virtual Round of 'ISIE-Indian Karting 2017' held at NCU on 18 and 19 March 2017 from among 35 teams participating from across the country.

- **Hackathon**

  A team comprising of Sachin Kushwaha, Akarshan Ganotra and Sandeep Yadav, 3rd Year CSE students won the First prize in the Hackathon at GNoida from 18-19 Feb 2017. They presented their idea to angel investors and well-known companies and won $15 coupons of Digital Ocean. More than 15 teams from various renowned colleges like DTU participated in the event.

- **NCU student studying at ITB, Dublin, Ireland**

  Under the NCU-ITB collaboration student **Antariksh Anand**, BTech CSE (Class of 2017) is studying MSc in Computing in Applied Cyber Security at the Institute of Technology, Blanchardstown (ITB), Dublin, Ireland. Eleven NCU students have earlier studied at ITB, Dublin, under various exchange options.

- **NCU student project selected for Mitsubishi Electric Cup 2018**

  Mitsubishi Electric India Pvt Ltd conducted a preliminary selection round for Mitsubishi Electric Cup 2018 in September and NCU's team 'Adroit' was amongst the 35 shortlisted out of over 150 teams. The title of the project of team 'Adroit' is 'Smart Drainage System' and consists of an interdisciplinary team of 3rd Year students Smridhi Seth, Prithu Jain, Abhijeet Kumar (EECE) and Mayank Juneja (ME).

- **Rowan and Sahil**, 6th Sem, Dept of EECE participated in the IoT Conference and Exhibition held on 9 Feb 2017 in Delhi. They exhibited their project 'Smart Building' and got a positive feedback about their project from reputed companies.

- **Aadhar Camp**

  An Aadhar Camp was set up at the University in a tie-up with the Gurugram District Administration from 17-19 August 2017 to facilitate faculty, staff and students to enroll for the Aadhar Card as well as for updation of data.

- **Awareness programme for transfer of money using a mobile**

  Students conducted awareness programmes for transfer of money using a mobile phone in the neighbouring areas from January-March 2017.

- **Workshop on Ethical Hacking**

  A workshop on 'Ethical Hacking' was organized by NCU Google Student's Club to focus on Ethical Hacking services which are rapidly gaining attention as an essential security practice on 16 March 2017.

- A team comprising of **Anshuka, Aditya, Aakar and Anmol**, 6th Sem, Dept of EECE attended a workshop on 'Mobile Robotics' at IIT Delhi for two days in February 2017. The workshop aimed at providing a forum for creating a common ground and understanding of social mobile robot applications and barriers.

- **Workshop on Digital India Programme**

  A group of 42 BTech, CSE students from 2nd and 4th Sem attended a workshop on 'Digital India Programme' at the Centre of e-Governance (CeG), Ministry of Electronics and Information Technology (MeitY), New Delhi on 25 April 2017. They learnt about e-Governance projects that are being implemented through the National e-Governance Plan (NeGP) to bring in efficiency and effectiveness in citizen-centric services, socio-economic transformation, especially in the fields of education, health, skill-building, entrepreneurship and in creating employment opportunities. Five students won prizes in the 'Digital India Quiz'.

The NCU team bagged three prizes in the 3rd National Student Project Exhibition on Engineering Design (SPEED)

- **Competitive Programmers Club**

  The Dept of CSE&IT has set up a Competitive Programmers Club that is active in organizing Online as well as Onsite CodeSprints. The club is headed by Devansh Bhatia and Pulkit Kapoor (externally).

  CodeSprint

  Three NCU CodeSprints were organized to raise awareness about Competitive Programming and Online Learning Resources like HackerRank which was used as the platform for the three contests: CodeSprint 1 held on 25 March 2017, 1st Rohit Malhotra (3rd Year), 2nd Aadish Goel (2nd Year), 3rd Sachin Kushvaha (3rd Year). CodeSprint 2 held on 16 April 2017, 1st Rohit Malhotra (3rd Year), 2nd Aadish Goel (2nd Year) 3rd Kartik Sharma (4th Year). CodeSprint 3 held on 15 August 2017, 1st NavKrishna (3rd Year), 2nd Rohit Malhotra (3rd Year), 3rd Aadish Goel (2nd Year).

NCU Winners of D-AiV award　　　　　　*NCU Winners of CCTC award*

- **Deloitte eMaverick Competition 2017**

  A team of six students pitted against 19,000 students from premier institutions across India to emerge victorious at Deloitte's Engineering School Maverick held at the company's Hyderabad office in April 2017. This technology-centric competition provided students with an opportunity to showcase their technical, innovative and analytical acumen. Both the winning teams were from NCU: The 'Deciders CCTC' comprising of **Abhay, Abhishek, Muskan** and 'Syllogist (DAiV)' comprising of **Shivam, Shefali** and **Shubham**. The teams won cash prizes of Rs 1,50,000/- each.

- **IDEA (Inspiring and Developing Entrepreneurial Acumen)**

  NCU students took part in the competition IDEA (Inspiring and Developing Entrepreneurial Acumen) at Gurugram on 7 April 2017 in which teams from various universities took part. NCU's teams from the Dept of ME won three Prizes: Team -1: Guardian Angel (Category – Product) comprising of Gaurav Saini and Kumar Abhijeet; Team -2: Eye Tracker Device (Category – Social) comprising of Paras Tyagi and Yoganshu Sanduja; Team-3: Car Parking Solution comprising of Akash Lal – 3rd Year.

- A team comprising of **Punit Sharma, Ashish Gupta, Anuj Kumar Jain and Vikas Rastogi** presented a paper in the 2nd International Conference on Cutting Edge Technological Challenges in Mechanical Engineering (CETCME-2017) at GNoida from 18-19 Feb 2017 on 'Dynamic Modelling and Validation of Continuous Beam with Free-Free Boundary Conditions'. This paper won the 'Best Research Paper Award' in 'Mechanical Design' in this conference.

- **Dramatics Society**

  NCU's Dramatics Society 'Abhimanch Theatre Society' presented their intense path-breaking play 'Court Martial' at the University on 30 April 2017. The play was written by Mr Swadesh Deepak and directed by the founding member of The Abhimanch Theatre Society and Alumni Mr Nikhil Malhotra. The production team was led by Ankita Mehar and Rahul Ghosh. The play was witnessed by enthusiasts from NCR and we are told that some Alumni flew in even from Mumbai to watch the play.

- **Enthralling Theatre Performance by 'Naya Theatre'**

  NCU Chapter of SPIC MACAY organized a theatre performance by 'Naya Theatre' founded by renowned playwright, poet and actor Late Habib Tanvir on 3 February 2017. The lively performance enthralled the audience with its unique blend of the culture of Chhattisgarh and traditional music from Bengal.

- **Visit to Sonal Smriti**

  Ms Anuradha, Ms Akansha and Ms Surbhi (JRF) along with six BTech 4th Sem (CSE) students visited 'Sonal Smriti – Center for Special Children' an organization providing specialized services to neurologically impaired children on 17 Feb 2017. The objective of the visit was to familiarize students with the needs of special children, who lack learning ability and get an idea about the kind of IT learning projects that can be created for them as part of their BTech project (under socially relevant projects).

- **Civil Engineering-GATE High Achievers**

  We are proud to notify that out of 129225 students who appeared in Civil-GATE 2017 this year, Rohit Arora achieved a high 99.48 percentile, Sukrit Sharma secured a high 99.08 percentile, while Yashraj Singh secured 98.76 percentile. Nine students from the Dept of CEE successfully qualified GATE 2017.

  Mohd Afnan Qureshi and Karan Sethi, Dept of EECE participated in the State level quiz competition on Energy Conservation and Renewable Energy organized by the New and Renewable Energy Department – HAREDA, Panchkula on 19 April 2017. They represented Gurugram district of Haryana.

Rohit Arora
Percentile 99.48

Sukrit Sharma
Percentile 99.08

Yashraj Singh
Percentile 98.08

- **Student project based on Wi- Fi Powered Indoor Navigation System**

  Students **Kriti Aggarwal** and **Harshit Juneja** (CSE) developed a Wi-Fi powered indoor navigation system 'NAV ME BOT'. The project is an android application that navigates the user by generating an optimal path from his location to a destination inside a building.

- **Students' article to be published in a book**

  A team comprising of **Nitesh Jain** and **Satyarth Sharma**, BBA-LLB (H), Class of 2018, bagged a consolation prize of Rs 1000 at UPES 2nd Enervions International Essay Competition in collaboration with Surana and Surana International Attorneys, Chennai. Their essay titled 'Climate Change and Sustainable Development' has been selected for publication in a book with an ISBN Number.

- **Student awarded 3rd Best Adjudicator**

  Anuraag Mehta, 5th Year School of Law, was adjudged as the 3rd Best Adjudicator at the recently held 6th Edition of National Parliamentary Debate 2017 from 18-21 August 2017. The competition saw participation from 32 teams across India.

- **Students bag NICMAR's 'Top Rankers Scholarship'**

  Yashasvee Khanna and **Akshay Aggarwal**, Final year BTech, CEE were amongst the top 100 students at the National Institute of Construction Management –NICMAR and obtained admission to the Advanced Construction Management (ACM)course at their Pune Campus for Masters in ACM.

- **Student Internships**
  * **Anushree Mishra**, BTech CEE (ASQ member) was on summer internship with GMR and involved in their Asset Management System preparation. Her name shall be part of the ISO quality certification of GMR T3 airport as a 'Special Mention' in their organization chart, based on her outstanding performance.
  * **Aneesha Gurjer**, BTech CEE, bagged a paid internship with Tata Consultancy Services through the efforts of the Dept of CEE and the ASQ team. She received a stipend of Rs 8000/- for her excellent performance.
  * **Aditya Choudhary**, BTech ME worked as an engineer trainee with Beijing Wavespectrum Science and Technology Co Ltd, Beijing, China from 20 February to 17 March 2017.

- **Ujjwal Prabhakar** (Class of 2016) MTech Civil Engineering obtained the 'Youngest Project Led Position' in JLL, India's premier professional services firm specializing in real estate. The firm was awarded the Property Consultant of the Decade at the 10th CNBC-Awaaz Real Estate Awards 2015 and the Best Property Consultancy in India at the International Property Awards Asia Pacific 2016-17. Ujjwal is from among our first batch of Construction Engineering & Management students at the Dept of CEE.

Outreach and Social Service by Students

National Service Scheme (NSS)

NSS Self Financing Unit of NCU organized an annual seven day camp at Abhaypur village under Sohna Subdivision, Gurugram from 25 – 31 Jan 2017. The theme of this year's camp was 'Youth for Eco Development'. The NSS society took an initiative to inculcate a positive attitude among underprivileged students of different NGO's and government school. On 10 April 2017 four teams under NSS were formed to make young students of different schools in Gurugram aware of the increasing competition and stresses they might face physically and mentally. To create awareness about important issues and spend quality time with students of Govt schools in Gurugram three teams of NCU - NSS volunteers visited three schools, namely Govt Sr Sec School, Sarhaul, SLAK Govt Girls Sr School, Sect-6 and Shaheed Bhagat Singh Yadav School, Gurugram on 13 September 2017. 45 Students of the University enrolled as NSS volunteers attended the camp, out of which 26 were girl students.

Yukti

'UPHAAR'- An Organ donation Camp

'Yukti', NCU's social service cell organised an organ donation camp from 20-24 March 2017 wherein people could pledge to donate their organs after their death. The main aim of the camp was to spread awareness about the benefits of organ donation in case of brain death and thus motivate students and faculty to pledge to donate their organs after their death.

'Yukti' collaborated with The Organ Receiving & Giving Awareness Network (ORGAN) India, a Delhi based NGO, to help volunteers sign and pledge to donate their organs through Columbia Asia Hospital. A promotional talk was organized by a transplantation surgeon from Columbia Asia hospital to encourage students to think about the same. It was a laudable effort by 'Yukti' to encourage people to think in this direction and challenge the myths that surround the issue of organ donation after death!

Focus on women's safety and empowerment

An event 'OPEN MIC' was organised by 'YUKTI' to focus on 'Women Safety and Empowerment' on 6 September 2017. It was an opportunity for the students and faculty to speak on the theme or share their experiences. Girls shared their experiences and how they handled them. A survey was conducted related to women's safety and it showed that the students felt that the environment was safe for women, provides equal opportunities to all and there was no gender bias at The NorthCap University. The event concluded with songs and stand-up comedy performances.

Visit to orphanage Asha Greha

2nd Year and 3rd Year students visited the orphanage Asha Greha on 25 Feb 2017. The main objective of the visit was to develop empathy, care and gratitude in our students so that they turn out to be better individuals and thus contribute to the needs of the society. The visit was really heart-touching as the students interacted with the kids and tried to bring a smile on their faces. The kids were very talented and all the students participated in dancing and singing.

Flood Relief Campaign

In collaboration with the NGO 'Goonj' a campaign 'Rahat-Floods' was organized at NCU campus on 10 September 2017. The flood relief collection drive attracted people from all over Gurugram and 'Rahat-Floods' was successful in raising funds, clothes, dry rations, blankets etc. which were donated to people in the flood affected areas in various parts of India. The energetic and enthusiastic student team worked relentlessly for the promotion of the collection drive supported by alumni and employees who came forward in large numbers to contribute towards flood relief.

'Yukti' collaborated with The Organ Receiving & Giving Awareness Network (ORGAN) India, to help volunteers sign and pledge to donate their organs through Columbia Asia Hospital

Sports

- NCU team participated in the **Inter-University Table Tennis** match held at the LNM Institute of Information Technology (LNMIIT), Jaipur, Rajasthan from 20-22 January 2017. In the Final Match the NCU team won the First prize.

- The University's Inter-Departmental **Athletics** Tournaments 2017 were held from 21-24 Feb 2017. There were many events like long jump, high jump, javelin throw, discus throw, shot-putt, 100, 200, 400, 800, 1500, 3000 mts races, relay race 100 x 4, 200 x 4, for boys and girls.

- Inter Departmental **Table Tennis** Tournament was held on 22 Aug 2017. The CSE Boys Team were the Winners with the ME Team being runner's-up. The BTech and BBA-LLB (H) teams were the winners and runner's-up in the Girls tournament.

- The Inter-Departmental **Volleyball Tournament** 2017-18 was held from 12-14 Sep 2017. The Winners Boys were the EECE team and the runner's-up were the CSE team. The Winners Girls were the BTech team and the runner's-up were the BBA-LLB (H) team.

Scholarships

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

On 22 November 2017, the University awarded scholarships on Merit and Means basis to 387 students, amounting to over Rs 1.58 crores. It was a major achieve-ment for a private university and was lauded by the Chief Guest at the occasion, Shri Pravin H Parekh, Padma Shri, Senior Advocate, Supreme Court of India.

Fee Concessions & Scholarships Awarded by NCU - Year Wise

■ No. of students / Amount in Crores

Year	No. of students / Amount in Crores
2006-2007	47 / 0.19 Cr
2007-2008	80 / 0.92 Cr
2008-2009	98 / 0.77 Cr
2009-2010	127 / 1.02 Cr
2010-2011	149 / 0.94 Cr
2011-2012	168 / 1.08 Cr
2012-2013	199 / 1.32 Cr
2013-2014	217 / 1.61 Cr
2014-2015	210 / 1.76 Cr
2015-2016	222 / 1.60 Cr
2016-17	266 / 1.41 Cr
2017-18	387 / 1.58 Cr
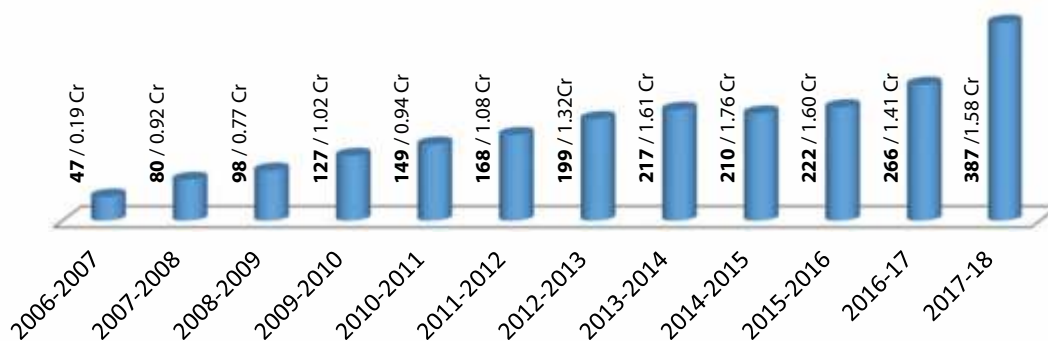
Dean's List of Students

Even Semester 2017

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

UNDER GRADUATE

School of Engineering & Technology

Aaditya Verma
Abhishek Jain
Akansha Mallick
Archita Raj
Charisha Phirani
Geetika Singh
Ishita Mehta
Piyush
Shubham Garg
Smirithi Rramasubramanian
Surbhi Papreja
Pankaj
Rahul Sharma
Vikas Kumar
Vinit
Aadish Goel
Chhavi Jain
Dinky Khatri
Madhur Bahl
Ruchi Arora
Sakshi Garg
Sarthak Agarwal
Sidharth Sharma
Baljinder Singh
Mayank Juneja
Nikhil Juneja
Devansh Bhatia
Garima Bhayana
Lakshay Chaudhary
Nandini Gupta
Rohit Malhotra
Shreya Chadha
Nitin
Pankaj Dagar
Shubham Sehgal
Vibhor Mittal

Radhika Agrawal
Jitender Verma
Sumit Jain
Akshay Kumar
Divya Bajaj
Mehek Chandna
Sukrit Sharma
Abhishek Jain
Aishwarya Basotia
Ishant Bhardwaj
Simar Preet Kaur
Suyash Abhay Ghirnikar
Laveena Garg
Preeti Dagar

School of Management

Sandhya
Apoorva Mangla
Kajal Jain
Niharika Marya
Raveena
Rishab Gaba
Aarushi Gilotra
Gunjan Shrivastava
Kirti
Surbhi Shah
Vandana Son

School of Law

Ojaswi Kulshrestha
Mukul Sharma
Tanish Khandelwal
Arohi Kashyap
Mohit Vats
Himangshu Rathee
Anubha Yadav

POST GRADUATE

School of Engineering & Technology

Purnima Yadav
Neetu Goel
Ankita Gupta

School of Management

Mitasha Sapra
Jatin Arora
Vimal Dahiya

To promote excellence in academics and to recognize outperformers, students scoring a CGPA of 9.5 and above are included in a selected Dean's List

Conferences, Workshops and Training Programmes

S. No.	Department	Conference	Dates
1	CFL	Workshop on CV making and interview skills with Ujval Nanavati	15 Dec 2016
2	CSE & IT	CISCO Instructor training Programme on CCNA Module 3 & 4 at Amity	5-16 Dec 2016
3	SOM	Soft skills and technical skills bootcamp	12-17 Dec 2016
4	ME	Workshop on 'Shape your imagination' conducted by the Society of Automotive Engineers NCU	12 Dec 2016 to 12 Jan 2017
5	ME	Training programme on 'Research Methodology' at Delhi School of Management, DTU	14-18 Dec 2016
6	EECE	Externship at Exicom Telesystems Pvt. Ltd. (Exicom)	21-24 Dec 2016
7	ME	National Workshop on Design Clinic Scheme for MSMEs	28, 29 Dec 2016
8	EECE	Externship at Beumer India Ltd	2-4 Jan 2017
9	SOL	Training Session organized by LexisNexis	18 Jan 2017
10	EECE	QEEE programme of IIT Madras on 'Stability Analysis - Control Systems'	18, 20, 23 Jan 2017
11	SOL	Workshop on 'Patent Filing in India and Abroad'	24 Jan 2017
12	EECE	NITTTR Chandigarh's training programme on 'Tools for Engineering Research through ICT'	30 Janu to 3 Feb 2017
13	SOL	Legal research training by online research portal 'Manupatra'.	30 Jan 2017
14	ME	Training programme on 'iQ-R PLC Hardware'	1-2 Feb 2017
15	ME	Rulebook workshop for SUPRASAEINDIA national competition	1 Feb 2017
16	EECE & ME	National training on Automation, Drives and Robotics by industry experts from Delta Electronics Ltd, USA	3-7 Feb 2017
17	CSE	Workshop on 'Data Analytics ® Package	8 Feb 2017
18	CSE	Outcome based curriculum design: Framing of course objectives	21 Feb 2017
19	ME	QEEE sessions on 'Basic Machine Tools and Metal Cutting Principles'	9-10, 16 Feb 2017, 8-10 Feb 2017
20	Psychologist cum Counsellor	Workshop on 'Thinking beyond yourself with empathy and compassion'	25 Feb 2017
21	SPA	Workshop by Fidelity International	20-25 Feb 2017
22	SOM	Seminar on 'Rethinking and Redefining Human Capital in Today's Fast Changing Business Horizon: Dialogues & Perspectives'	25 Feb 2017
23	CSE	FOSS (Free Source Software) training was conducted by IIT Bombay for 2nd, 4th and 6th Semester students through Spoken Tutorial software project	Jan-May 2017 (Semester wise)
24	SOET	Workshop on Virtual Labs by IIT Delhi	2 Mar 2017
25	EECE	Externship at FIS Global, Gurugram	7-9 Mar 2017
26	ME	Workshop on 'Applications of ANSYS CFD' conducted by ANSYS Software Pvt Ltd under Corporate Social Responsibility (CSR)	15-17 Mar 2017
27	CSE & IT	Workshop on Big Data Analytics using Hadoop	16 Mar 2017
28	CSE/IT	Workshop on Ethical Hacking	16 Mar 2017
29	CSE	Department conducted a course on 'Public Key Cryptograph for 3rd Year students.	16, 20, 22 Mar 2017
30	ME	Workshop of 'ISIE-Indian Karting 2017'	18-19 Mar 2017
31	EECE	NITTTR trained teachers, propagate ICT skills and induction training programmes	21-24 Mar 2017

Conferences, Workshops and Training Programmes

S. No.	Department	Conference	Dates
32	APS	Workshop on 'Report Writing in LaTex'	22 Mar 2017
33	APS	5th National Conference on Advances in Metrology (AdMet-2017)	23-25 Mar 2017
34	EECE and CSE & IT	Externship to The Energy and Resource Institute (TERI)	27-28 Mar 2017
35	SOET	Externship to The Energy and Resource Institute (TERI)	27-28 Mar 2017
36	SOL	National Conference on Criminal Justice Administration in India: Contemporary Issues & Challenges	8 April 2017
37	CSE	Workshop on Spoken Tutorial Project of IIT Bombay	24-29 April 2017
38	Admissions Team	Session on Career Counseling	25 April 2017
39	CSE & IT	Externship to The Energy and Resource Institute (TERI)	27-28 Mar 2017
40	EECE	Reliance Jio Infocomm Ltd (Jio)	3-5 May 2017
41	Admissions Team	Workshop on Career Guidance seminars	14 May 2017
42	Computer Society of India	Workshop on 3D Game development	17-25 May 2017
43	EECE	Training on Basic Electronics and Measuring Instruments, Microprocessors, Microcontrollers, Arduino, Raspberry Pi and Python	19 May, 23-25 May 2017
44	ME	Training on SERVO (MR-J4B, RD77MS4)	24 May 2017
45	EECE	Externship at ZTE Telecom India Pvt Ltd	2 -3 June 2017
46	CEE	Software training on Staad Pro by Bentley	June 2017
47	SAE, iCAT	'Efficycle' workshop	8 July 2017
48	Pro Vice-Chancellor	National Convention on Digital Initiatives on Higher Education	9-10 July 2017
49	CEE	Workshop on 'Primavera P6' software of project management	3 Aug 2017
50	Central Research Facility (CRF)	Training on advanced and analytical instruments for research	5 Aug 2017
51	EECE	Workshop on 'Wireless Sensor Networks	22 Aug 2017
52	SOL	Workshop on Research Methodology	31 Aug -2 Sep 2017
53	SOL	Lexis Nexis workshop/training	25 Aug 2017
54	SOL	Workshop on soft skills	31 Aug- 1 Sep 2017
55	CLL	Network 'n+i' Engineering Education Seminar	6 Sep 2017
56	CEE	Workshop on MX Road Software	6 Sep 2017
57	NCU	Workshop on Virtual Labs and Practices	8 Sep 2017
58	EECE	Workshop on 'LabVIEW applications with practical realization'	9 Sep 2017
59	CSE&IT	Workshop on Internet of Things (IoT)	9 Sep 2017
60	CEE	Externship at Seafaradays India Pvt Ltd	11-12 Sep 2017
61	ME	Workshop on 'Industrial Design for Engineers'	12 Sep 2017
62	CSE&IT	Workshop on Photoshop by the Society Visualive	13 Sep 2017

Industrial Visits

- Prof. Ravindra OJha visited Jamna Auto Industries Ltd Jamshedpur on 18 and 19 January 2017. He interacted with the plant's leadership team to provide inputs in the areas of Value Flow, Organisation Structure, Continuous Improve-ment Projects, Industrial Relations and Leadership Skill Improvement.

- Dr Shiv Manjaree Gopaliya and Ms Charu Rana along with ME and ECE students visited Delta Electronics Pvt Ltd, Gurugram on 7 February 2017 to explore the width of work done by the company.

- Quanser, a Canada based company in association with Edutech India Pvt Ltd have developed a Control Engineering based laboratory at IIT Delhi. Mr Manoj Kumar Gopaliya and Dr Shiv Manjaree Gopaliya visited the laboratory on 13 February 2017. Eductech India provided details of the Quanser based research products and equipments available in the lab in the areas of mechatronics and controls engineering. This visit also helped in finding future research directions for MTech and PhD programmes.

- 2nd Year students of CEE along with faculty members Mr Lokesh Choudhary and Mr Shubham Bansal visited NDMC's 200 KLD sewage treatment plant (STP) based on an innovative Soil Biotechnology technique at Gole Market, New Delhi on 15 February 2017. The visit to STP provided students the opportunity to see and learn about the working of the same and understand how to cope with different challenges faced in the processes involved in sewage treatment.

- An industrial visit to Milestone Switchgear Pvt. Ltd was organized by the Dept of EECE for BTech EE 6th Sem students on 20 February 2017. They visited various sections of the industry and explained each and every component of the panels. Having real life experience of power boards, control panels, designing etc. allowed the students to have a better understanding of these components about which they had studied in their books.

- Prof. Ravindra Ojha, Director, SOET and Ms Shikha Kashyap, Assistant Professor, Dept of ME visited Sellowrap on 27 February 2017. The company supplies to leading OEMs different products that are based on foam, plastics for interiors of the vehicle. Two ME final year students were selected in the Maruti Centre for Excellence (MACE) for internship and based on their perfomance their approval to work with MACE was extended and converted to final year BTech project.

- A visit to Surabhi Engineers Ltd, Faridabad was organized on 15 March 2017 for 1st & 2nd Year students. Surabhi Engineers is a leading supplier of engineering components, sheet metal press components, pipe accessories etc. Students visited the manufacturing division, welding section of the company which is equipped with the latest Robot welding machines and the quality control department of the company where they learnt about the inspection processes followed by the company. Discussion was also held for Surabhi Engineers Ltd to provide industrial training to NCU students. The visit was coordinated by Mr Anmol Bhatia and Mr Kishore Guru.

- An industrial visit was organized for BTech students to Exicom Telesystems Pvt Ltd, Gurugram on 22 March 2017 coordinated by Dr Sharda Vashisth and Dr Rekha Vig. The objective of the trip was to understand about power units used at base stations, assembly line, surface mounted components, wave soldering and also to explore the possibility of summer internships in the company.

- A visit to Surya Roshni Ltd, Bahadurgarh, Haryana was organized on 22 March 2017 for BTech 1st Year students. They got an opportunity to see the manufacturing processes of Steel Pipes of various diameters, their testing and quality control processes, galvanization processes etc. Mr Gagan Baradia and Mr Deepak Monga coordinated the visit.

- The Dept of ME organized an industrial visit to Blue Peter Pvt Ltd, Badli Industrial Area Delhi on 22 March 2017 for students of BTech. Blue Peter group is an ISO/TS 16949:2002 certified 1st Tier sheet metal OEM supplier to automobile giants nationally & internationally. Students observed sheet metal operations especially progressive dies. The industrial visit was coordinated by Mr Anuj K Jain and Mr Satnam Singh.

- The Dept of ME conducted a visit to Motif Capacitors Pvt Ltd, Delhi on 22 March 2017 for students of BTech 2nd & 3rd Year. Students got an opportunity to witness a world class manufacturing facility with various capacitors and high level of industrial automation. Students interacted with the top management of the company and got hands-on experience of manufacturing of capacitors. Director of Motif group, Mr Rohit Rai explained the future of Mechatronics and Industrial Automation in MSME's. The visit was coordinated by Mr Anuj K Jain and Mr Satnam Singh.

- SOM organised an industrial visit to the Mother Dairy Plant, Patparganj, Delhi, on 22 March 2017 for the students of BBA-III, BCom-III and MBA-I. The presentation and the plant visit made the students aware of the entire production process i.e. starting from collection of milk from farmers, clarification, homogenization, pasteurization, fortification till dispatch. The students learnt about the transportation guidelines and the unique distribution network of bulk vending milk booths, retail outlets and mobile units. The various quality control measures adopted were also shared.

- An industrial visit to Carrier Aircon, Gurugram was organized for the students of the course CILE, comprising mostly of Mechanical Engineering students, on 24 March 2017. Students were briefed about the history of the world's largest provider of air-conditioning, heating and commercial refrigeration systems. They were apprised about the various awards won by Carrier for its quality work, certifications achieved and the different products manufactured. The students were taken on a round of the plant where they saw different assembly lines, QC tools, 5S and hi-tech machines used for production of air conditioners and heat exchangers.

- A visit to Logic-Fruits Technologies, Gurugram was organized for BTech (ECE), MTech (ECE & VLSI Design) and PhD Scholars on 6 April 2017. The students saw the products of the company and explained the technology. Internship opportunities in the company were also explored. Logic-Fruit Technologies is an India based design house with an expert team of system engineers in core electronics & FPGA domain, capable of converting customer concepts into a solution. The visit was coordinated by Dr Neeraj Kr Shukla.

- An Industrial visit was organised for ISHRAE student members to AC Humidin Air Systems Pvt Ltd, a leading ventilation equipment manufacturing company, on 4 April 2017. Students got real life exposure to all products of the company as they visited the entire workshop area and saw the manufacturing processes and equipments such as ventilation units, welding units, riveting units, axle balancing units etc. and clarified their doubts. Possibility for internship, projects and placements on completion of their course were explored. The visit was coordinated by Mr Jag Parvesh Dahiya.

- A visit to Beumer India Ltd, Gurugram was organized for BTech EE 6th Sem and ME 2nd Sem students on 22 April 2017. Students of Mechanical and Electrical Engineering got practical exposure to the products of the company as they were given a chance to visit

the entire workshop area. They saw the manufacturing processes and equipments and clarified their doubts. Possibility for internships, projects and placements on completion of BTech were also explored. The visit was coordinated by Ms Shaveta Arora and Ms Vandana Khanna.

- Visits to NHAI GAWAR upgradation project, Gurugram, IFFCO Chowk site to see the geo grids and geo nets used in construction; Rajiv Chowk site to see construction of overpass and underpass, lab and testing facilities etc. were organized by the Dept of CEE in June 2017. The faculty also visited the DMRC metro construction site at Satya Niketan, New Delhi and saw the girder launching process, post tensioning activities, testing labs and facilities.

- An industrial visit was organized to Polyplastics Engineering India Pvt Ltd, Bawal, Haryana by the Dept of ME on 9 June 2017. Live application and implementation of tools for Lean system like 5S, KAIZEN were shown which enhanced practical understanding of the term 'Lean system'. Avenues for doing a live project on a problem faced in the industry, industrial visits, guest lectures were also explored.

- Ms Jyotika Pruthi and Ms Richa Chabbra, Dept of CSE&IT, visited Airtel and Incuspaze on 23 June 2017 and met Mr Yashraj Bhardwaj and discussed about the progress of the students and the website that was developed by the students for the Company. The work of the students was well appreciated.

- Mr Pankaj Rakheja, Dept of EECE, visited Maruti Suzuki Ltd and Circular Blue, Gurugram on 29 June 2017 to take a feedback of students doing internships and discuss further association for guest lectures, Internships and joint projects by the companies and NCU.

- Mr Shubham Bansal and Mr Akx Malik, Dept of CEE, visited Rajiv Chowk, Gurugram on 4 July 2017 where Gawar Construction is undertaking the NHAI project.

- Mr Gagan Baradia and Mr Jag Parvesh Dahiya visited Talbros Automotive Components Ltd, Faridabad on 5 July 2017 to review the internship progress of BTech students. They also discussed about future internship and project opportunities with the HR Head of the company.

- Ms Pooja Sabherwal, Dept of EECE, visited Siemens India and Micromax Gurugram on 7 July 2017 to take a feedback of the students doing internships and discuss future aspects with them for guest lectures and further association for projects jointly proceeded by the companies and NCU.

- Ms Rita Chhikara, Dept of CSE&IT, visited the National Informatics Centre, Electronics Niketan, NIC, MMTC Ltd, India Meteorological Department and World Wildlife Fund in July 2017.

- Ms Purnima Bajpai and Mr Shubham Bansal, Dept of CEE, visited RITES Ltd, Gurugram, the DLF Crest site located in Sector 54 and the DLF Leighton project in Sector 64 Gurugram where two students were working. The faculty also visited three sites /offices on 11 July 2017 viz., GMR Ltd, Udhan Bhawan, IGI Airport where one student, Anushree was working; BJP Head Quarters being constructed by L&T Infrastructure, Deen Dayal Upadhyay Marg, New Delhi; Tata Housing project in CP, New Delhi where Aneesha had been working, directly associated with Mr Ciby James, ASQ Northern Head, on a paid internship.

- Ms Geetika, Dept of CSE&IT, visited Mando for internship feedback and had a discussion with Ms Shweta Goel on 13 July 2017.

- Mr Manoj Kr Gopaliya, Dept of ME, visited Maruti-Suzuki, Gurugram and their Manesar Plant on 13 July 2017 to review the progress of industrial training of BTech ME, 6th Sem students and met Manager-Engine Design & Development, Gurugram Plant

and Dy Manager-Plant Control, Manesar Plant during the visit.

- Ms Amanpreet Kaur, Dept of EECE, visited Binary Semantics Ltd and Bharti Airtel, Gurugram on 13 July 2017 to take a feedback of the students doing internships and discuss future aspects like guest lectures and further association for projects jointly proceeded by companies and NCU.

- Ms Garima Sharma, Dept of CSE&IT, visited DEN Networks, Okhla, Caretel Infotech Ltd, Naraina, CBSL Group and Dignitas Digital on 14 July 2017.

- Dr Charan Kumari, Dept of CSE&IT, visited ASVISERLogic, Gurugram, DAN Electronics Pvt Ltd, Gurugram and Anlight Consulting, Welldone Tech Park, Gurugram on 14 July 2017.

- Dr Kavita Khanna, Dept of CSE&IT, visited Nokia Solutions and Networks India Pvt Ltd and DSM Sinochem Pharmaceuticals to take a feedback of students who were doing internship and had a healthy discussion about the latest technologies they were working upon and to extend Nokia-NCU association for the long term.

- A team of faculty members from the Dept of CEE visited Skyway Infra Pvt Ltd. which is constructing a 50 MLD Sewage Treatment Plant at village Dhanwapur in Gurugram in July 2017.

- Ms Purnima Bajpai and Ms Megha Kalra, Dept of CEE, visited the Central Soil and Material Research Station, New Delhi, where two students of Final year CE were interning. They visited the Indira Gandhi Hospital construction project site, undertaken by L&T and PWD at Dwarka. The team also visited The Engineers India Ltd office at Bhikaji Cama Place, New Delhi.

- Mr Akx Malik and Mr Lokesh Chaudhary, Dept of CEE, visited NHAI at Udyog Vihar Gurugram; office of Millennium Engineers & Contractors, Gurugram and DLF at sector 42-43 Metro Station, Gurugram. Faculties met Mr Alam, Assistant Project Manager of the DLF team working at the project for diversion of drainage systems.

- Mr Anuj Kr Jain visited RICO Auto Industries, Gurugram on 17 July 2017 to review the progress of industrial training of BTech, ME 6th Sem students. He also discussed future internship and live industrial project opportunities with the Manager-HR.

- Prof. Ravindra Ojha, interacted with the Managing Director and the HR team of M/s Federal Mogul, Powertrain, Gurugram on 21 August 2017 to explore future areas of collaboration such as internships, projects and workshops and the setting of a Centre-of-Excellence with the support of M/s Federal Mogul.

- Dr Sushmita Biswal Waraich, Head, SOM, visited Videocon Industries Ltd (Corporate Office), Gurugram on 21 July 2017 to discuss about the performance of the summer interns as well as further association with SOM.

- Prof. Ravindra Ojha visited the ASQ office Delhi on 25 August 2017 to evolve the framework of an Executive Development Programme on 'Operational Excellence' at The NorthCap University. He had discussions with industry stalwarts Dr K Kumar, Former Director MACE, Mr KC Mehra, Former CEO Tata, Mr Amit Chatterjee, MD, ASQ and Mr Ciby James, Director ASQ. This Executive Development Programme would be for the tier 1 suppliers in the industry covering topical areas like Lean, Quality and Supply chain.

- A site visit was organized by the Dept of CEE for BTech 2nd and 3rd Year students along with faculty members Mr Shubham Bansal and Ms Purnima Bajpai to ongoing construction sites at Rajiv Chowk, Signature Tower and IFFCO Chowk, the three critical zones on NH8 in Gurugram where 'underpass' and 'flyovers' are being constructed by Gawar Construction Pvt Ltd on 4 September 2017.

Conferences/ Workshops attended by Faculty

S. No	Faculty	Dept	Conference/ Workshop/ Seminar	Venue	Date
1	Prof. Prem Vrat		Conference on Operations Management	BHEL, Noida	1 Dec 2016
2	Dr Sushmita Biswal Waraich	SOM	'Responsible Hoteliering Conclave 16'	The Park, New Delhi	5 Dec 2016
3	Ms Neeti Kashyap	CSE & IT	CISCO Instructor training Programme	Amity University, Noida	5-16 Dec 2016
4	Dr Amit Srivastava	CEE	International Conference on Forensic Geotechnical Engineering	Indian Institute of Science (IISc), Bangalore	8-9 Dec 2016
5	Prof. Prem Vrat & Brig. SK Sharma (Retd),		Conference on 'India Onward- Scaling Digital India'	Taj Mahal Hotel, Delhi	9 Dec 2016
6	Mr Anuj Kumar Jain	Mech	Training programme on 'Research Methodology'	Delhi School of Management, DTU, Delhi	14-18 Dec 2016
7	Prof. Prem Vrat		ASQ South Asia Conference	Hotel Taj Vivanta, New Delhi	16 & 17 Dec 2016
8	Ms Megha Kalra	CEE	Workshop on Inclusive Cities	Jamia Millia Islamia, New Delhi	19-20 Dec 2016
9	Dr K Mathiyazhagan	Mech	International Workshop on Sustainable Supply Chain Managemen	University of Southern Denmark, Odense, Denmark	19 Dec 2016
10	Dr Ashwini Sharma	Mech	National Workshop on Design Clinic Scheme for MSMEs	India Habitat Centre, New Delhi	28, 29 Dec 2016
11	Dr Sushmita Biswal Waraich	SOM	Workshop on Case study writing and development	IIM Lucknow, Noida Campus	5 Jan 2017
12.	Dr Latika Singh and Ms Anuradha Dhull	CEE & IT	National Employability Conclave	Aspiring Minds, Delhi	19 Jan 2017
13	Ms Neeti Kashyap & Ms Sumanlata Gautam	CEE & IT	'MSMEs and Start-Ups revolution 2017- Driving India Growth'	Indian Institute of Corporate Affairs	28 Jan 17
14	Mr Gagan Baradia	Mech	Panel discussion in Entrepreneur Summit 2017 on the theme 'Tech-innovation'	IIT-Bhubneswar, Odisha	27-29 Jan 17
15	Mr Anuj Kumar Jain	Mech	'MSMEs and Start-Ups revolution 2017- Driving India Growth'	Indian Institute of Corporate Affairs	28 Jan 17
16	Dr Anjali Garg and Ms Shaveta Arora	EECE	Workshop on Programmable Logic Controller (PLC), organized by Mitsubishi Electric India Pvt. Ltd.	MEL, Gurugram	1 & 2 Feb 2017
17	Mr Abhishek Pratap Singh	Mech	Workshop on Programmable Logic Controller (PLC)	Mitsubishi Electric India Pvt. Ltd. Gurugram	1 and 2 Feb 2017
18	Prof. Prem Vrat		International conference on 'Interdisciplinary Research in Supply Chain Management and Decision Sciences Applications in Business Practices'	Department of Management Studies, IIT Delhi	3 and 4 Feb 2017
19	Dr Anshu Malhotra & Dr Deepika Rani	APS	Regional Workshop on Indian Women and Mathematics (IWM)	Punjabi University, Patiala	6-7 Feb 2017
20	Ms Hitesh Yadav and Ms Neeti Kashyap	CSE&IT	2017 CISCO Networking Academy Instructor Conference	Radisson Blue, Noida	7 Feb 2017
21	Ms Mehak Khurana	CSE&IT	Workshop on CyberEye Endpoint Security- Offence and Defence	IIIT Delhi	10 Feb 2017
22	Ms Mehak Khurana	CSE&IT	5th Privacy and Security Symposium	IIIT Delhi	11 Feb 2017

Conferences/ Workshops attended by Faculty

S. No	Faculty	Dept	Conference/ Workshop/ Seminar	Venue	Date
23	Dr Sunita Sharma	APS	National Workshop on Thin Films held at the School of Basic Science and Research	Sharda University, Noida	17-18 Feb 2017
24	Mr Anuj Kumar Jain	Mech	2nd International Conference on Cutting Edge Technological Challenges in Mechanical Engineering (CETCME-2017)	Greater Noida	18-19 Feb 2017
25	Pro Chancellor, Prof. Prem Vrat and Registrar Col Bikram Mohanty (Retd)		International Education Conclave on 'Student Discipline – New Challenges'	Institute of Counsellor Training Research and Consultancy (ICTRC), New Delhi	22 Feb 2017
26	Dr Anjali Garg, Ms Shaveta Arora; Dr Shiv Manjaree Gopaliya	EECE; ME	'Edumeet 2017'	Ajay Kumar Garg Engineering College, Ghaziabad	1 Mar 2017
27	Prof. Prem Vrat		PMI India Research and Academic Conference on 'Accelerating Development: Harnessing the power of Project Management'	IIT Delhi	2 Mar 2017
28	Dr Vijender Singh	CSE&IT	IEEE 4th International Conference on Computing for Sustainable Global Development	Bharati Vidyapeeth, New Delhi	1-3 Mar 2017
29	Ms Purnima Bajpai	CEE	Project Management Research & Academic Conference 2017	IIT Delhi	2-4 Mar 2017
30	Prof. Prem Vrat		2nd Industry – Academia Conclave of ICFAI Business School (IBS)	ICFAI Hyderabad	4 Mar 2017
31	Dr Ashwini Sharma	Mech	Design Awareness Seminar	MSME Development Institute, Karnal	8 Mar 2017
32	Dr Vijender Singh	CSE&IT	Workshop on Big Data Analytics using Hadoop	IITM, Murthal; MSIT, Sonipat	16 Mar 2017
33	Dr Ashwini Sharma	Mech	Workshop of 'ISIE-Indian Karting 2017'	NCU, Gurugram	18 and 19 Mar 2017
34	Faculty Team	SOL	World Conference on Environment-2017	New Delhi	25-26 Mar 2017
35	Dr Seema Thakran	APS	National Workshop on Mathematical Modelling and Computational Techniques using Mathematica	Zakir Hussain College, University of Delh	30-31 Mar 2017
36	Dr Sunita Sharma	APS	National Conference on Functional Materials: State of Art (NCFM-2017)	Sharda University, Noida	31 Mar to 1 April 2017
37	SOCER Group	CSE&IT	Cyber Security Workshop	Cyber Security Engagement Centre, Microsoft (CSEC), New Delhi	12 April 2017
38	Prof. Ravindra Ojha	SOET	Deans Summit	Deloitte, Hyderabad	13 & 14 April 2017
39	Dr Shilpa Sindhu	SOM	16th National Case writing workshop	Prestige Institute of Management, Gwalior	29 April to 1 May 2017
40	Ms Megha Kalra and Ms Purnima Bajpai	CEE	Conference on 'Clean BS-IV Fuels - A right step towards cleaner environment'	PHD Chamber of Commerce, New Delhi	5 May 2017
41	Dr Latika Singh and Dr Yogita Gigras	CSE&IT	Expo on '3rd Smart Cities India 2017'	Pragati Maidan, New Delhi	10-12 May 2017

S. No	Faculty	Dept	Conference/ Workshop/ Seminar	Venue	Date
42	Ms Purnima Bajpai	CEE	2nd World Conference on Technology, Innovation and Entrepreneurship	Istanbul, Turkey	12-14 May 2017
43	Dr Sushmita Biswal Waraich	SOM	Management and Entrepreneurship Skills Summit	The Lalit, New Delhi	23 May 2017
44	Dr Seema Thakran	APS	Conference to honour Prof. Rajendra	Bhatia Indian Statistical Institute, Delhi Centre	30-31 May 2017
45	Prof. Prem Vrat		International Conclave on 'India: A Global Destination for Higher Education'	Hotel Ashok, New Delhi	10 June 2017
46	Dr Srijanani A Parsad	APS	Cornell University, Ithaca, USA	6th Conference on 'Analysis Probability and Mathematical Physics on Fractals'	13–17 June 2017
47	Mr Akx Malik	CEE	EUROCK 2017 international conference	Ostrava, Czech Republic	19-22 June 2017
48	Mr Shubham Bansal	CEE	National Roads & Highways Summit 2017	PHD Chamber of Commerce and Industry, New Delhi	6 July 2017
49	Brig. SK Sharma (Retd)		National Convention on Digital Initiatives on Higher Education	Vigyan Bhawan, New Delhi	9-10 July 2017
50	Ms Purnima Bajpai	CEE	Conference on Power Transmission and Distribution (T&D) organized by the Ministry of Power	PHD Chamber of Commerce and Industry, New Delhi	12 July 2017
51	Dr Ruchi Nayyar	SOM	8th Indian Management Conclave 2017	IIM Lucknow- Noida Campus	4-5 Aug 2017
52	Dr Hukum Singh	APS	24th Congress of the International Commission of Optics (ICO-24)	Japan, Tokyo	21-25 Aug 2017
53	Mr Navin Pal Singh	SOL	Intellectual Property Rights	(DIPP), Ministry of Commerce & Industry, GOI, New Delhi	22 Aug 2017
54	Dr Preeti Chawla	SOM	4th National Summit on Non- banking Finance Companies (NBFC)	ASSOCHAM, Hotel Imperial, New Delhi	23 Aug 2017
55	Dr Payal Khurana	CLL	Inter-School English Debate Competition	NK Bagrodia School, New Delhi	30 August 2017
56	NCU Faculty	SOET	Seminar on 'Journey of Science and Technology in India: A historical perspective'	National Institute of Plant and Genome Research (NIPGR), New Delhi	2 Sept 2017
57	Dr Ashwini Sharma	ME	57th Annual Convention of the Society of Indian Automobile Manufacturers	SIAM, New Delhi	7 Sept 2017
58	Mr Satnam Singh	ME	5th International Conference on Powder Metallurgy & Advanced Materials 2017	Technical University of Cluj-Napoca, Romania	17-20 Sept 2017
59	Dr Ashwini Sharma	ME	'Skill enhancement through project based learning- real Engineering	Noida International University	18 Sept 2017
60	Dr Preeti Chawla	SOM	National Conference on Banking and Finance	Maharshi Dayanand University, Rohtak	26 Sept 2017

Guest Lectures

1. Prof. B Chandra, Professor, Department of Mathematics, IIT Delhi delivered a lecture on 'Concepts of Machine Learning' on 12 December 2016 organized by Dept of CSE&IT.

2. Dept of CSE&IT organized a guest lecture by Prof. Ramesh Kumar Agarwal, Professor, School of Computer & Systems Sciences, JNU, New Delhi on 'Deep Learning' on 14 December 2016.

3. A guest lecture by Mr Karthik Harith, Head of KraftHeinz's UK Frozen Ready Meals, Infant Feeding and Oriental Food Businesses was organized by the Centre for Leadership on 15 December 2016.

4. A lecture by Dr SD Attri, Deputy Director General of India Meteorological Department, New Delhi was organized by the Dept of CEE on 21 December 2016.

5. A lecture by Joe Abraham on Retail and Corporate banking along with the concept of credit scores and how it is decided was held at the Centre for Leadership on 22 December 2016.

6. The Dept of CEE organized an expert lecture on 'Real Estate and application of Solar Energy' by Dr KN Rai, Former Chief Executive (CW&E) and Advisor (Special Projects) DRDO, Ministry of Defence for 2nd and 3rd Year students on 10 January 2017.

7. CLL organised a special lecture on 'Self-Empowerment for success in life' by Dr Mohit D Gupta, Associate Professor of Cardiology, GB Pant Hospital on 24 January 2017 for NCU's 2nd Year students.

8. Dr Pankaj Attri, Research Professor at Plasma Bioscience Research Center Kwangwoon University, Seoul delivered a guest lecture on 'Plasma Technology: A Greener Remediation for Environmental and Health Problems' on 25 January 2017 organized by the Dept of APS.

9. Mr S Maitra, Dy MD, IFB delivered a lecture on the important topic 'KAIZEN' to final year students of the Dept of Mechanical Engg on 28 January 2017.

10. A guest lecture was delivered by Dr Sriparna Basu, Professor, Fore School of Management on 'Managing Performance in the Digital Age' on 6 February 2017 at the Centre for Leadership.

11. At the Centre for Leadership a special talk was delivered on 7 February 2017 by Ms Shreyasi Singh, Director, Careers at Vedica Scholars Programme and Columnist at MINT.

12. A special lecture was delivered to 1st Year BBA-LLB (H) students on 'Professional avenues for young legal professionals' by Mr Pratiksh Rai, Mr Ankit Joseph and Mr Kunal Mehra, Mylaw.net on 7 February 2017 organized by SOL.

13. A lecture on 'Data Mining: Industry Applications' by Ms Prachi Saraph on 7 February 2017 was arranged by the Dept of CSE&IT.

14. Mr Mohit Grover, Head, Radio Access GSS-India, Nokia Networks delivered a guest lecture on 'Internet of Things' on 8 February 2017 which was organized by the Dept of EECE.

15. An expert lecture on 'Construction Contracts & Safety' by Mr Saurabh Jolly, Vice President, Seafaradays Pvt Ltd was delivered on 11 February 2017 to Final year students of the Dept of CEE.

16. A lecture was delivered by Mr Rohan Dev Talwar, Analyst, KPMG on the topic 'Demographic Dividend of India' conducted by the Dept of CSE&IT on 15 February 2017.

17. Mr Pankaj Som Chaturvedi, Country Head, ConnectXcite Mobi (India) Pvt. Ltd. delivered a special lecture on the topic 'Emerging Areas in Applied Technology for the Indian Context - How to align education for career success' on 16 February 2017 conducted by the Dept of EECE.

18. Mr Gursharanjit Singh Rosha, President, ASCE–India Section (Northern Region) delivered an expert talk on the topic 'Civil Engineering Career Prospects - A Pragmatic View' on 18 February 2017 to students of the Dept of CEE.

19. Dept of CSE&IT organized a guest lecture by Mr Varun Rao, Associate Product Manager, Walker Digital Table Systems on 'Agile Software Development Model' on 21 February 2017.

20. The Dept of ME arranged a Health Talk by Ms Jyoti, Senior Executive, Department of Science, Yakult Denon Pvt Ltd, Sonipat on 21 February 2017.

21. A guest lecture was delivered by Prof. Amitav Sen Gupta on 22 February 2017 to 1st Year BTech (CSE) students. He spoke about 'Global Positioning System and Atomic Clocks' and emphasized on the importance of precision of time measurement and the working of GPS.

22. A guest lecture on 'Introduction to IoT with Applications' was delivered by Dr SPS Saini, Former Sr Scientist-CEERI-Pilani and organized by the Dept of EECE on 23 February 2017.

23. A lecture by Dr Ankur Gupta, IIT Bhubaneswar was organized by the Dept of ME on 'Nano-inspired Research Applications and Challenges' on 25 February 2017.

24. A guest lecture by Mr LN Visvanathan, Vice president (Production), Exicom Telesystems Pvt Ltd, Gurugram was organized by the Dept of EECE on 27 February 2017 on the topic 'Surface Mounted Technologies'.

25. SOL organized a special lecture on 'Challenges in Criminal Investigation: The role of law enforcement agencies in India' by former ACP, Delhi Police, Mr Ramesh Chander on 27 February 2017.

26. Dept of CEE organized a lecture on preparing for the Indian Engineering Services entrance examination for pre-final year students by Mr Vipul Bajaj on 28 February 2017.

27. Dept of CSE&IT organized an expert lecture entitled 'Machine Learning and its Real Time Applications' on 1 March 2017. The expert speaker was Prof. Vijayan K Asari, Department of Electrical and Computer Engineering, University of Dayton, Ohio, USA.

28. An expert talk on 'Information Security and Digital Forensics' by Mr Jaibir Kumar Jain, HCL Info Systems was organized the Dept of CSE&IT on 3 March 2017.

29. An interactive session was organized for the one year PGDM students on 15 March 2017 at the Centre for Leadership with Mr Christopher C Doyle, Founder of The Growth Catalysts & CEO Coach.

30. An interactive session was organized on 17 March 2017 for the one year MBA students on 'Crypto Currency' by Mr Pramod Emjay, Co-founder, CryptoMe. Mr Pramod spoke about various crypto currencies, how they are traded on exchanges, how their transactions get recorded and how to make an investment in virtual currencies.

31. The Dept of Mechanical Engineering and the Dept of EECE jointly organized an expert lecture on today's highly demanding topic of 'Industry Automation and Programmable Logic Controller' by industry expert Ms Ripanjeet Kaur, Sr Engineer, Mitsubishi Electric India Pvt Ltd, Gurugram on 17 March 2017.

32. The Dept of ME and the Dept of EECE organized an expert lecture on 'Industry Automation and Programmable Logic Controller' by industry expert Ms Ripanjeet Kaur, Sr Engineer, Mitsubishi Electric India Private Ltd, Gurugram on 17 March 2017.

33. An expert lecture by Mr Varun Bajaj, Structural Design Engineer, WS Atkins India Pvt Ltd was organized for 2nd Year students by the Dept of CEE on 22 March 2017 on the topic 'Ductile Detailing of Structures'.

34. The Dept of EECE organized a lecture on 'Project Management: Visualizing theory in Practice' by Mr Himanshu Sharma, Project Management Division, Andritz Hydro.

35. A lecture by Mr Ranjeev C Dubey, Managing Partner of law firm, N South Advocates was organized by SOL on 24 March 2017.

36. A talk on 'Depression' by Dr Shweta Sharma, Psychologist, Columbia Asia Hospital was delivered on 7 April 2017 on the occasion of World Health Day coordinated by Ms Nikita Kapoor, Psychologist, NCU.

37. An expert talk was organized by the Dept of CSE&IT on the topic 'Designing of Web applications using MVC Design Pattern' by our Alumni Mr Chirag Aggarwal for BTech CSE 4th and 6th Semester students on 10 April 2017.

38. An expert talk was organized by the Dept of CSE&IT for BTech and MTech, Cyber Security students on 'The Next Generation Cyber Attacks & Threats' conducted by Mr Rahul Tyagi, Vice President Lucideus Technology Pvt. Ltd on 11 April 2017.

39. Dept of CSE&IT organized an interactive session for CSE 3rd Year students on 13 April 2017. Alumni Mr Manmohan Maheshwari and Mr Manan Jain (Class of 2015), currently pursuing MS in Pennsylvania State University, USA guided students on how to prepare for GRE exams.

40. The Dept of CSE&IT organized an expert lecture on 'Cyber World Threats & Awareness' by Mr Rakshit Tandon, Founder Chairman, A & R Info Security Solutions Pvt Ltd, Director, Executive Council of

Information Security and Cyber Security Consultant to Internet and Mobile Association of India on 18 April 2017.

41. Ms Nikita Gupta (Class of 2013) shared her experiences as a civil engineering professional in a real estate consulting firm on 18 April 2017 organized by the Dept of CEE.

42. The Dept of APS organized two lectures by Prof. Ajit Iqbal Singh, Emeritus Scientist, The Indian National Science Academy, New Delhi on 19 April 2017 to celebrate Mathematics – Statistics awareness month.

43. A lecture and interactive session was organized by the Dept of CSE&IT for 2nd Year BTech students by our Alumni Mr Aman Singh Dhaka (Class of 2004), SME DBA in IBM India on 19 April 2017. The topic of the talk was 'Database Management Tools and their Industry Relevance'.

44. The Dept of CEE organized a guest lecture on 20 April 2017 by a high rank achiever of a national level examination, Mr Anand Poonia, Assistant Commissioner, Indian Revenue Services, Customs and Central Excise, Faridabad. The session focused on the Union Public Services Commission's (UPSC) Civil Service Examination.

45. The Dept of CSE & IT organized a guest lecture on 'Privacy and Security in Online Social Media' (PSOSM) by Dr Ponnurangam Kumaraguru, Assistant Professor, Indraprastha Institute of Information Technology (IIIT), Delhi on 22 April 2017.

46. The Dept of CSE&IT organized an expert lecture on the topic 'Big Data Analytics Landscape' by Mr Vasu, Senior Engagement Manager, Axtria on 22 April 2017.

47. A guest lecture was delivered by Dr Yoginder Talwar, Scientist D, Network Security Division of National Informatics Centre (NIC), Ministry of Electronics & Information Technology, New Delhi on the topic 'Data Centre Security' organized by Dept of CSE&IT on 24 April 2017.

48. A guest lecture was organized by SOM for BSc Economics students on the topic 'Unlocking the potential of your Economics Degree' by Ms Neha Malhotra, Associate Professor, Indian School of Business and Finance and an alumni of LSR, University of Delhi and the London School of Economics on 24 April 2017.

49. SOM organized a lecture on 'Employee Performance in the Era of Competition: Industry Perspective' by Mr Rajesh Tara, VP-HR (Usha International Ltd) for the students of BBA, B Com and MBA on 25 April 2017.

50. In collaboration with Brahamkumaris, Palam Vihar and RITES a talk was organized by SOM on 'Work-Life Balance' by Sister Shivani on 29 April 2017.

51. NCU's Marketing & Admissions Team organized a lecture by Mr Bijoy Veer Suri, an MBA from the Indian School of Business, Hyderabad for NCU students of final year BCom (Hons), BBA, BSc Economics (Hons) on 1 May 2017.

52. The Centre for Leadership organized a guest lecture by Ms Anju Talwar, SVP, Quality at Sutherland who shared several inspiring anecdotes from her professional as well as personal life in June 2017.

53. Mr Biplob Banerjee, Exec VP, HR & CSR, Jubilant Foodworks, gave a talk on an important topic 'When good enough is not enough' organized by the Centre for Leadership.

54. Ms Suman Keshari, Professor of HR at ITM Gwalior, Former Civil Servant spoke on the topic 'Motivation is the key to success for any team' in June 2017 organized by the Centre for Leadership.

55. The Dept of EECE organized a guest lecture on 'Networking and Security' by Mr Manish Bhardwaj, Network Security Expert from Azure Skynet Solutions Pvt Ltd, Gurugram on 3 August 2017.

56. Mr Manish Bhardwaj, Network Security Expert from Azure Skynet Solutions Pvt Ltd, Gurugram deliverd a lecuture on 'Networking and Security' on 3 August 2017 organized by the Dept of EECE.

57. Dept of EECE organized a lecture by Alumni Mr Navdeep Singh, Electronics & Instrumentation, Class of 2012, Sub-inspector in the Central Industrial Security Force (CISF) under the Ministry of Home Affairs, GOI, for 3rd Year students to join the Armed Forces on 18 August 2017.

58. Dept of EECE organized a lecture by Alumnus Mr Navdeep Singh, Electronics & Instrumentation, Class of 2012, Sub-inspector in the Central Industrial Security Force (CISF) and motivated students to join the Armed Forces on 18 August 2017.

59. An expert lecture on the topic 'IoT and Applications' by Dr Anirban Das, Founder, Ansyst Consulting, was organized by the Dept of CSE&IT on 22 August 2017.

60. An expert lecture on the topic 'IoT and Applications' by Dr Anirban Das, Founder, Ansyst Consulting, was organized by the Dept of CSE&IT on 22 August 2017.

61. Dept of ME organized a lecture by Dr Rakesh Kumar, General Manager, Federal Mogul, Bhiwadi, Rajasthan on 'Manufacturing through Power Metallurgy - A case from auto industry' for BTech students on 23 August 2017.

62. Dept of ME organized a guest lecture by Dr Rakesh Kumar, General Manager, Federal Mogul, Bhiwadi, Rajasthan on 'Manufacturing through Power Metallurgy - A case from auto industry' on 23 August 2017.

63. Sr Advocate Kulbhushan Bhardwaj delivered a special lecture on the topic 'Need of Legal Aid in Society and Career in Law' to law students at SOL in association with Shashakt Nari Parishad and an NGO 'Farishtey' on 25 August 2017.

64. Sr Advocate Kulbhushan Bhardwaj delivered a special lecture on the topic 'Need of Legal Aid in Society and Career in Law' to law students at SOL in association with Shashakt Nari Parishad and an NGO 'Farishtey' on 25 August 2017.

65. Mr Vineet Lochan Gupta, CEO, Save Techno Engineers delivered a lecture on 'Precautions / Shortcomings, observed while execution of building activities' to BTech students on 27 July 2017 organized by the Dept of CEE.

66. Dept of EECE organized a lecture on 'Robotics and Planning for Higher Education' by Alumnus Mr Siddhartha Jaitly (Class of 2014) Managing Director, DSSM Techno Dynamics Pvt Ltd on 31 August 2017.

67. Alumnus Mr Aditya Mall (Class of 2012) Electronics and Communication delivered a lecture on 4 September 2017 organized by Dept of EECE. He spoke on how to improve skill sets, leverage benefits of learning online programming languages etc.

68. Dept of CEE organized a lecture by Alumnus Mr Suresh Chandra Sharma, MTech, Construction Management, (Class of 2016) Senior Consultant, Ministry of Drinking Water & Sanitation, New Delhi on 5 September 2017.

69. Dept of CSE&IT organized a special talk on '5G Networks' by Mr Kunal Sharma, Head, Nokia Networks for Packet Core Networks on 6 September 2017.

70. An expert lecture was organized by Dept of EECE on the topic 'Industry Applications of IoT' by Mr Manas Jain, Associate Director, Axtria - Ingenious Insights, Gurugram on 8 September 2017.

71. Dept of CSE&IT organized a guest lecture on 'Risk Management' by Ms Aparajita Sinha, Security Analyst, Ernst & Young Global Delivery Services on 9 September 2017.

72. Dept of EECE organized a guest lecture on 'Introduction to 5th Generation of Mobile Communication' by Mr Sandeep Sharma, General Manager, Ericsson India Pvt Ltd on 13 September 2017.

73. Mr Hitansh Thakur (Class of 2017) deliverd a lecture on the importance of Major Projects and Summer Internships on 12 Sept 2017 conducted by Dept of CEE.

74. Dept of CEE organized an expert session on the 'Role of Project Management and Finance Management' on 20 Sept 2017.

75. Dept of ME conducted an Expert session with Alumnus Mr Mehul Jain (Class of 2015), Piping Design Engineer, Jacobs Engineering, Gurugram on the topic 'A glimpse of EPCM industries' on 13 September 2017.

76. SOL organized a guest lecture by Dr Oliver Quick, Professor, University of Bristol on the theme 'Healthcare, Medicine & Medical Manslaughter' on 29 August 2017.

Total Publications (2017)
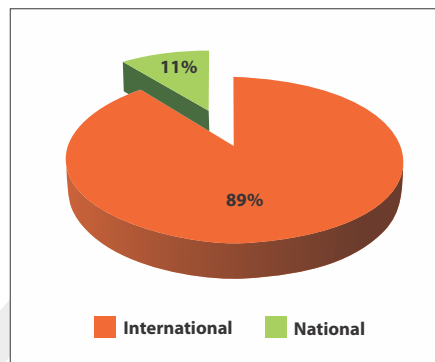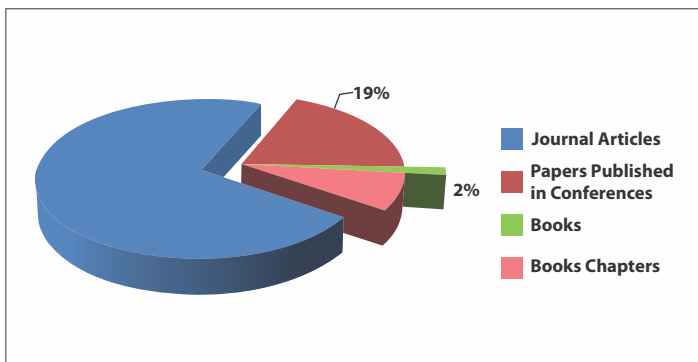
Publications	Number
Journal Articles	188
Conference Proceedings	48
Books	4
Book Chapters	19
Total Publications	**259**

Publications	Number
International	227
National	27
Total	**254**

Books
INTERNATIONAL

1. Nikhat Ikram, **Shilpa Mahajan** (2016) 'Designing of Accident Avoidance Application in Wireless Sensor Network', pp. 1-93, LAMBERT Academic Publishing, ISBN - 978-3-659-97059-7, **CSE2016B002**.

2. **Kavita Khanna*** (2017) 'Identification of Noun Phrases in Hindi using GB Theory', pp. 84 Pages, Lap Lambert Academic Publishing, ISBN-978-3-330-04106-6, **CSE2017B001**.

3. **Supriya Raheja*** and Vaishali Jain (2017) 'Prediction of Diabetes using vague set theory', pp. 1-89, LAP LAMBERT Publishing House, UK, ISBN-978-3-330-07456-9, **CSE2017B002**.

4. Pooja Yadav* and **Anuradha** (2017) 'An Efficient Hierarchical Clustering Technique for Medical Diagnosis', pp. 1-63, LAP LAMBERT Publishing House, UK, ISBN-978-3-330-31914-1, **CSE2017B003**.

Book Chapters
INTERNATIONAL

1. **Supriya Raheja*** (2017) 'Intuitionistic Fuzzy Set Theory with Fair Share CPU Scheduler: A Dynamic Approach' in Theoretical and Practical Advancements for Fuzzy System Integration, Chapter 6, pp. 126-153, IGI Global, ISBN - 9781522518488, **CSE2017BC001**.

2. **Neha Sahu*, Akansha** Singh, Krishna Kant Singh and Nitin Kali Raman (2016) 'A keypoint effective art network approach for handwritten word recognition' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 148, pp. 879-882, CRC Press, Taylor and Francis, ISBN- 978-1-138-02952-1, **CSE2017BC002**.

3. Chandra Shekhar Singh*, Krishna Kant Singh, Debjani Mitra and **Akansha Singh** (2016) 'Energy efficient power allocation for OFDMA based cognitive radio' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 66, pp. 403-407, CRC Press, Taylor and Francis, ISBN-978-1-138-02952-1, **CSE2017BC003**.

4. Garima Sharma*, **Akansha Singh**, Anil Kumar Yadav and Krishna Kant Singh (2016) 'Face Detection from Digital Images' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 18, pp. 107-112, CRC Press, Taylor and Francis, ISBN-978-1-138-02952-1, **CSE2017BC004**.

5. Poonam Sharma*, **Akansha Singh** and Krishna Kant Singh (2016) 'Probabilistic neural networks for hindi speech recognition' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 77, pp. 463–467, CRC Press, Taylor and Francis, ISBN- 978-1-138-02952-1, **CSE2017BC005**.

6. **Anuradha* and Gaurav Gupta** (2016) 'A hybridized framework to build bias optimized decision tree classifiers' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 115, pp. 681-686, CRC Press, Taylor and Francis, ISBN - 978-1-138-02952-1, **CSE2017BC006**.

7. Srishti Sharma* and **Yogita Gigras** (2017) 'A Survey: Threats and Vulnerabilities in Cloud' in Detecting and Mitigating Robotic Cyber Security Risks, Chapter 6, pp. 87-97, IGI Global, USA, ISBN-9781522521549, **CSE2017BC010**.

8. Sakshi Gupta* and **Yogita Gigras** (2017) 'A Survey: Vulnerabilities Present in PDF Files' in Detecting and Mitigating Robotic Cyber Security Risks, Chapter 1, pp. 1-Nov, IGI Global, USA, ISBN- 9781522521549, **CSE2017BC011**.

9. **Prem Vrat** (2017) 'Inventory Management' in The Routledge Companion to Production and Operations Management, Chapter 6, pp. 101-124, Routledge (Taylor and Francis Group, UK), ISBN- 978-1-138-91959-4, **SOM2017BC001**.

10. Mohd Hussain Kunroo*, Irfan A. Sofi, **Mansi Khurana** and Sandeep K. Mogha (2017) 'Re-visiting the Impact of the Euro on Trade Flows: New Evidence Using Gravity Equation with Poisson Count-Data Technique' in Advances in Intelligent Systems and Computing, Chapter 26, pp. 229-239, Springer, ISBN- 978-981-10-3325-4, **SOM2017BC002**.

11. **Jyotika Pruthi* and Gaurav Gupta** (2017) 'Metaheuristics: Modeling variant of ant colony optimization for image edge detection using self adaptive approach' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 5, pp. 31-33, CRC Press, Taylor and Francis, ISBN-978-1-138-

02952-1, **CSE2017BC007**.

12. Pooja Dang* and **Jyotika Pruthi** (2017) 'Modeling of brain tumor detection using image processing' in Communication and Computing Systems: Proceedings of the International Conference on Communication and Computing Systems (ICCCS 2016), Gurgaon, India, 9-11 September, 2016, Chapter 9, pp. 53-57, CRC Press, Taylor and Francis, ISBN-978-1-138-02952-1, **CSE2017BC008**.

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