

Newsletter



Vol. 90 April 2019

THE NORTHCAP UNIVERSITY

(For internal circulation only)

NCU Activities

NIRF Ranking

Glorying the 23 years of existence, The NorthCap University has achieved a new milestone, aiming towards the goal of quality education. The University was awarded with a rank 117 in the Engineering category and comes under a rank band of 151-200 in the University category in All India NIRF ranking survey 2019 by MHRD.



VI - National Moot Court Competition

The School of Law (SOL) organized its VI NCU National Moot Court Competition (NMCC) on 6 & 7 April 2019 with a theme 'Illegal and mining', portraying Environmental Laws. The event was inaugurated by the guest of honour, Hon'ble Mr Abhishek Manu Singhvi, MP Rajya Sabha, Senior Advocate at Supreme Court. Mr Singhvi appreciated the efforts of SOL for highlighting such a critical and important issue. The Moot Court Competition witnessed participation of 22 teams from Central and State Universities, National and Private Law Schools from all across the country. Amity Law School, Noida emerged as the Winner of the competition and was awarded with a trophy, certificate and a cash prize of Rs 15,000 and Army Law College, Mohali was the runners-up and awarded with a cash prize of Rs 10,000. Award for the Best Memorial was bagged by U.P.E.S, Dehradun with a cash prize of Rs 5,000; Award for Best Female Mooter was won by Army Law College,



Mohali with a cash prize of Rs 5,000 and an award for the Best Male Mooter was won by Rajeev Gandhi National Law University, Patiala with a cash prize of Rs 5,000. (SOL20190020)

SPIC MACAY

SPIC MACAY, the Society for the Promotion of Indian Classical Music and Culture Amongst Youth organized the student chapter 'SPIC MACAY VIRASAT', by Mallick Brothers on 10 April 2019 at the NorthCap University. The intension was to enrich the quality of formal education by increasing awareness of Indian Heritage and inspire youth to imbibe the values embedded in it. Belonging from a tradition of Illustrations Darbhanga Dhrupad, holding a position of the torch-bearers of Dhrupad music enticing a lineage, 450 years old, the event explored the colours of Indian Classical Music accompanying the dance performances.



GATE 2019: A Milestone of NCU

Culminating to the 23 years' of the establishment, The NorthCap University commits to the career progression of each and every student, imparting a skillset to help them understand the very existence of education. Withstanding on the pillars of our student's achievements, we congratulate them for clearing their GATE 2019, an exam to test a comprehensive understanding of the subject in the sector of engineering and science. From the batch of 38, 21 students were awarded with a score of more than 90%, creating a milestone on the road to success. Such outcome gives them an experience of a lifetime, triggering to their holistic enhancement.



Mini-Marathon: A pledge towards Voting

A mini-marathon at Leisure Valley Park was organized by The NorthCap University in collaboration with the District Administration, Gurugram to sensitize everyone about their voting rights and duties. Mr Subhash Yadav (IPS), IG State Vigilance Bureau was the chief guest, addressed everyone stating that election is the Mahakumbh of Democracy and urged everyone to vote. It was concluded with signing of the signature campaign 'I pledge to Vote' by participants. The event was coordinated by Dr Jahanvi Bansal and Dr Priyanka Banerji. (SOM2019O007)



IDEATHON 2019

On 23 April 2019, an annual Ideathon was held at JC Bose University of Science and Technology, YMCA. A total of 130 teams participated and brought upon their ideas in which a team from The NorthCap University, NeX



comprising of Shrey Malhotra and Vishal Sharai bagged first prize and received a cheque of Rs 50000, adjudged by Mr Rajiv Gulati, Head, Hartron mutiskill development centre, Start-up Incubator & CoE IoT Gurugram.

News from the School of Engineering and Technology

Department of EECE

Guest Lecture

The department of EECE organized a guest lecture titled 'Applications of DSP in real-world underwater scenarios' by Prof. Rajender Bahl, CARE, IIT Delhi on 16 April 2019. Prof. Bahl explained about how DSP can be used underwater using sonars. It was coordinated by Dr Rekha Vig and Dr Shaveta Arora. (ECE2019G003)



Industrial Visit

The department of Electrical, Electronics and Communication Engineering (EECE) organized an Industrial Visit to LFT for students of BTech and MTech ECE accompanied with the faculty members, Dr Anjali Garg, and Dr Neeraj Shukla on 12 April 2019. It gave students a refresher about the job prospects, long term benefits in the area of VLSI. (ECE2019V001)



Innovations in Artificial Intelligence

Dr Shaveta Arora organized a special session on Innovations in Artificial Intelligence and software computing in International Conference on Intelligent Computing & Smart Communication (ICSC 2019) and was invited as a guest of Honour to chair the session which was held from 19-21 April 2019 in THDC Institute of Hydropower Engineering and Technology (IHET), Tehri, Uttarakhand. (ECE2019O005)



Adieu: Bridging the Memories

30 April 2019, marked a new milestone for the NorthCap University towards a road to success. With the parting notion and a warming gesture, 'Adieu', a farewell to students batch of 2015-19 was organized by the Department of EECE. A bouquet of moments was shared in the form of a collage of pictures, reviving each memory of the time that they had spent together. The ceremony ended, marking each second with the scribbles so that they can capture the scenery forever. (ECE2019O007)



Alumni Interaction

- ❑ The Department of EECE invited Ms Agrata Kumar, Business Analyst in Deloitte Boston on 12 April 2019 to deliver a lecture on 'Role of Digital Electronics Engineers' to students of 2nd year, emphasizing on the importance of the IoT and VLSI design based courses in the industry. (ECE2019G005)



- ❑ The Department of EECE invited Mr Aman Singla, Engineer in AVL India on 11 April 2019 to deliver a lecture on 'Use of MATLAB in Industry' to students of 3rd year. He talked about Skills required in automation industry especially in automobiles with the importance of MATLAB in industries. (ECE2019G004)



GRIDTECH 2019: An International Exhibition and Conference

POWERGRID with the support of the Ministry of Power and in association with CBIP and IEEMA organized its 6th International Exhibition and Conference GRIDTECH-2019 from 3-5 April 2019 at ITPO, Pragati Maidan, New Delhi on



new technologies in Transmission, Distribution, Renewable Integration, Smart Grid, Communication etc. The event was inaugurated by the Vice President, M Venkaiah Naidu. 'Student's Innovation Pavilion' was also established as a part of GRIDTECH 2019 where student's community were able to demonstrate emerging technologies in their working models. Yashika Chauhan and Monali Kar, demonstrated an 'IoT Based Air Pollution Monitoring System'. Srishti Singhal and Sachin Singh Chauhan demonstrated 'Agrobot- An Autonomous Agriculture multi-purpose robot'. Aakansha Paul and Isha Gupta demonstrated a 'Hand Gesture Recognition System For Speech Impaired People'. They achieved a participation prize of Rs 20,000 with a certificate and a memento.

Parent Teacher Meet

A Parent Teacher Meet was organized on 6 April 2019 to have a close interaction of parents with teachers in regard to the progress shown by their wards and finding workable solutions to the problems if any, coming in the way of their development. This enabled parents to capture the weaknesses and strengths of their ward so that they can move parallelly with respect to their progress.



Department of CSE

Exhibition: Projects on IoT

The Department held an exhibition of IoT based projects on 18 April 2019. Students demonstrated their hard work, dedication and intelligence by proposing IoT based solutions for various real world problems. Hon'ble Dr H B Raghavendra, Vice Chancellor, Ms Neeru Bahl, Dr Kavita Khanna and faculty members gave their valuable inputs for enhancing the projects. (CSE02019015)



Orientation Programme

The Department organized an Orientation Programme for students of BTech 2nd year on 1 April 2019 to apprise them of modular learning method and emerging field of Web Technologies and core competencies in Data Base Management Systems. Dr Kavita Khanna, Head of Department, CSE introduced students with the concept of modular learning. (CSEO2019016)



Expert Lecture

- The department organized an expert lecture titled 'Recent Trends in Cryptography' for students of 3rd year CSE by Dr AK Mohapatra, Chief Technical Officer (CTO), Delhi Police on 18 April 2019. He shared several real-life examples and applications like usage of TLS 1.3 in Whatsapp end-to-end communication. This lecture was organized by Dr Prachi and Ms Kanika Gupta. (CSEG2019001)
- A special lecture on 'Agile Methodology using SCRUM' was delivered by Mr Varun Rao, to students of 6th semester CSE on 18 April 2019. He discussed about trends and upcoming areas in Software development. The lecture was organized by Ms Hitesh and Ms Neeti Kashyap. (CSEG2019002)
- Deloitte organized Collegiate Cyber Threat Competition (CCTC) on 16 April 2019 in Hyderabad. The rounds involved quizzes on the categories such as IOT, Network and Information Security, ethical hacking, blockchain and cloud computing. Two teams comprising of Deepak, Vinitha & Chhavya and Jasmita, Gavish and Hitansh were selected for the final round. CSEO2019018



MEAN Stack: A Web Application Development

The department of CSE introduced a new course on Web Application development using MEAN Stack for student of BTech CSE. To accomplish this,



the department conducted an FDP on Web Development from 21 Feb 2019 – 30 March 2019 by the industry experts from Brain Mentors pvt ltd. From the project based training, faculty developed projects using the MEAN Stack.

Faculty Activity

Dr Rita Chhikara presented a paper titled 'Hybrid Genetic Algorithm for Feature Selection in Image Steganalysis' at 20th International Conference on Contemporary Issues in Science, Engineering & Management held at Singapore on 6-7 April 2019. She was bestowed with best paper award. (CSEO2019019)

Department of Civil & Environmental Engineering

Career Counselling

A career counselling session was organized for the students of Civil Engineering Diploma on 26 April 2019 in Pusa Institute of Technology, Pusa IRI Complex, Inderpuri, Delhi. Mr Shubham Bansal, Mr Diptendu Roy, faculty of Civil department, NCU accompanied with Mr Ishaan Nandwani from the marketing team addressed the students about the benefits of joining The Northcap University for their further studies. (CEE20190033)



A Gathering for Women Empowerment: Redefining Morals

A social gathering was organized, titled 'Women empowerment and importance of education' and 'Nayi Soch Naye Disha' with an objective of supporting moral values in current generation in respect to women empowerment. Dr Archanaa Dongre was invited along with the other eminent speakers like Dr Munni Bharathi (JNU Delhi) and Mr Sarvind, Scientist ONGC. She emphasized on Dr Ambedkar's statement "Progress of a community can be measured by the degree of progress which women have achieved". The event took place in the Dhankot Village, Gurugram on 7 April 2019. (CEE20190030)

Faculty Activities

Dr Archanaa Dongre and Dr Vaishali Sahu attended a meeting with EGIS India Consulting Engineers Pvt. Ltd. on 26 April 2019 at EGIS, Gurugram. Dr Vaishali Sahu presented an overview about The NorthCap University and the Department of Civil and Environmental Engineering to all, furthermore, a brief about the new specializations that the department offers. The meeting was coordinated by Dr Vaishali Sahu. (CEE20190031)

Felicitation Ceremony

26 April 2019, a reflection of the 4 years of togetherness, The NorthCap University delivers its delight to the final year students from the Department of Civil & Environmental Engineering. With the warming message from Hon'ble Prof. HB Raghavendra, Vice Chancellor and the faculty members, Mr Lokesh Chaudhary, Dr Archana Dongre and Dr Vaishali Sahu to students, marking towards their nostalgic journey at NCU. The momentum of joy was extended with the fun filled activities and laughter, parting with a speech from students, giving life to all the memories at NCU. (CEE201900323)



Guest Lecture

The Department of Civil & Environmental Engineering organized an interactive session from the industry experts on 22 April 2019. Mr Ganesh Chandra Barman, Senior Manager, Xplorer Consultancy Services Pvt. Ltd, Mr Prashant Kumar, Delhi Jal Board, Zonal Engineer-Delhi Jal Board and Ms A Nisha Rani, Assistant Engineer, Water Resources, Organization, Public Works Department, Government of Tamil Nadu were the speakers who shared various areas for a Civil Engineer to work and their own experience in the respective fields. (CEE2019G006)

Awareness on Health and Hygiene of Women

A workshop titled 'Awareness on Health and Hygiene of women' was organized on 11 April 2019 by the department of Civil and Environmental Engineering. Dr Sujata Naidu, Head Operations, Niine movement, India, presented students, faculty and technical staff with the facts about the use of sanitary napkins, facilitating the adaptation of hygiene. (CEE2019WO010)



Department of Applied Sciences

Industrial visit

An industrial visit for students of BSc (H)Physics and BSc (H) Maths along with Dr Seema Thakran and Dr Trapti Neer, Faculty members, Maths was organized on 12 April 2019. The visit to different sections of the factory was followed with an interested informative session on the manufacturing details of the products like, candies, biscuits and namkeens. Ms Hanisha Dalal, HR-dept, Parle G answered to all the questions from students. (APS2019V001)



Mentor-Mentee Interactions



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

Faculty Mentor, Prof. Kehar Singh, Honorary Distinguished Research Professor visited the department of APS to guide PhD research scholar and faculty members on 15 March 2019. Prof. Singh motivated them for research and about good publications in reputed journals. He also discussed various topics on optical image processing and other emerging areas and suggested simulation work like recording and reconstruction of holograms in holography Lab. (APS2019O011)

Visit of Prof. I K Varma



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

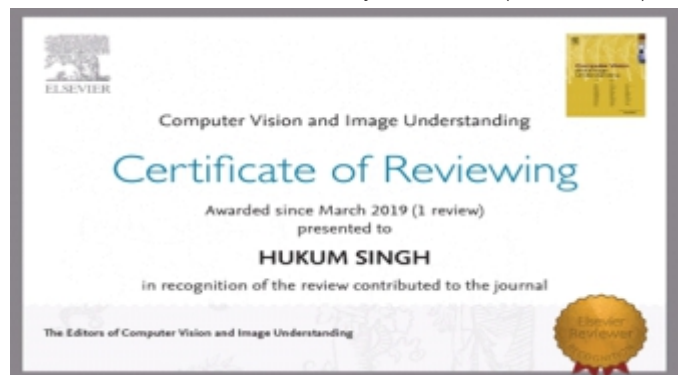
Faculty Mentor, Prof. I K Varma, Honorary Distinguished Research Professor visited the department of Applied Sciences on 11 April 2019. Prof. Varma discussed the research progress of her mentees and research scholars of the department. She reviewed the content on LMS of all mentees and gave her valuable suggestions for further improvement. She discussed with new PhD students and motivated to them for high impact research and publications. (APS2019O015)

Faculty Activities

Recognition of reviewing



Dr Hukum Singh has been awarded a certificate of reviewing by prestigious Elsevier Journal (Computer Vision and Image Understanding) in calendar year 2019. The certificate has been given in recognition of the contributions made to the quality of the Journal. The current impact factor of this journal is 2.391. (APS2019O012)



□ Dr Pranati Purohit and Dr Aditya Sharma were invited by NK Barodia Global School, Sec-17, Dwarka on 23 April 2019 to celebrate 'DHARA UTSAV' and to judge the event of 'Design Your Scientist, on the occasion



of Earth day where the school students from 24 different schools had to make the presentation on the discoveries of a scientist and deliver the presentation in the provided time. (APS2019O014)

Department of Mechanical Engineering

Pre-Placement Interview

A Pre-Placement Interview was organized for students of Mechanical Engineering on 27 April 2019. The session was conducted by our Alumnus, Mr Ritesh Sethi, Marketing Manager, Hindustan Times-Alumni, Mr Prashant Bhatia, Co-Founder, MakerTech 3D Printing Solutions batch, Mr Omkar Kaushi, Engineer, DENSO, Mr Dishant Aghi, Deputy Manager-Operations, Tripple-A Gaskets, Mr Anmol Tikoo, Engineer, DAIKIN Air conditioners, Mr Nishant Yadav, Manager, Shiv Pneumatics, HR Personnel- Mr Tushar, HR Head, Shiv Pneumatics and faculty members of the department. The session was coordinated by Mr Anmol Bhatia, Assistant Professor. (MED2019O010)



Expert Lecture

- An expert lecture titled 'Emerging trends of 3-D Printing' was organized by Dr Vikas Sharma, Assistant Professor, Sel. Grade-01 for students from the department of Mechanical Engineering on 10 April 2019. Mr Vivek Yadav raised the practical knowledge of students regarding the application of 3-D Printer in various industries. (MED2019G003)
- An expert lecture was organized for students belonging to the 6th semester, Mechanical Engineering on 8 April 2019 in the central research facility lab. Dr Sunita Sharma, APS discussed about Scanning Electron Microscopy and X-Ray Diffraction techniques used in material characterization'. The session was coordinated jointly by Dr Satnam Singh and Dr Sunita Sharma. (MED2019G004)



- An expert lecture on 'Arithmetic's by Vedic Mathematics' was organized on 26 April 2019. Dr Sanjeev Kumar from Thapar institute of Engineering and Technology delivered the lecture. He provided insights of using Vedic mathematic as programming tool for computer systems, which can enhance the programming capabilities. The session was jointly organized by Dr Satnam Singh from the Department of



Mechanical Engineering and Dr Trapti Neer from the Department of Applies Sciences. (MED2019G005)

- The Department of Mechanical engineering organized an expert lecture 'Solar photovoltaic Power Generation and Thermal Energy Storage for Solar Energy' on 22 April 2019 for students of BTech (ME, CE) and students of BSc (H). The talk was delivered by Dr Som Mondal from Department of Energy and Environment, TERI School of Advanced Studies. He is the Co-PI, CoE in Thermal Energy Storage TERI School of Advanced Studies, Vasant Kunj, New Delhi. The seminar enhanced students' knowledge in the area of current & emerging trends in Solar Energy. The event was conducted by Dr Akanksha Mathur, Dept. of Mechanical Engineering. (MED2019G006)



- An interdepartmental expert lecture on 'Inventory Management' was delivered by Dr Esha Jain from School of Management on 23 April 2019. Students were acquainted with various tools used in inventory management process. The lecture was jointly coordinated by Dr Satnam Singh and Dr Esha Jain. (MED2019O009)



Guest Lecture

- The Department of Mechanical Engineering recently organized a guest lecture titled 'Skills required by Mechanical Engineers to get Placed'. Mr Nishant Yadav, Manager, Shiv Pneumatics, an alumnus of 2014 entry batch and Mr Tushar Talwar, HR Manager, Shiv Pneumatics as the speakers, guided students under the area of skills that the companies require in order to hire Mechanical Engineers. The session was coordinated by Mr Anmol Bhatia, Assistant Professor. (MED2019O007)

- A guest lecture was organized by the Department of Mechanical Engineering titled 'Types of Air conditioning Systems' on 2 April 2019. Mr Gagan Malhotra, Head of Centralized Air conditioning/ Chillers for North India, Daikin Air Conditioners and Mr Anmol Tikoo, Engineer, Daikin Air conditioners and Alumni of 2013 batch spoke about basic refrigeration cycles and the different type of air conditioners. The session was coordinated by Mr Anmol Bhatia, Assistant Professor. (MED2019G002)



Industrial Visit

An Inter-Departmental industrial visit to Motif Electric Ltd, Badli Industrial Area, Delhi was organized by the Department of Mechanical Engineering and School of Management on 15 April 2019 for students of BTech Mechanical Engineering, MBA, BCom and BBA. They got a chance to interact directly with the Director of Motif group in which he explained the future of Mechatronics and Industrial Automation in MSME's. This was coordinated by Dr Satnam Singh, Dr Esha Jain and Mr Praveen Singh. (MED2019V001)



Workshop

- A hands-on workshop was organized for students of Mechanical Engineering on 5 & 9 April 2019. It focused on 'Assembly and Disassembly of Engines' which helped students to get an insight of automobile engine, their working and various tools. It was conducted by Dr Vikas Sharma, Assistant Professor, the Department of ME and Mr Ravinder Yadav, Workshop Supervisor. (MED2019WO004)
- The department of Mechanical engineering organized a workshop on Intellectual Property Rights on 18 April 2019 in collaboration with



CIPRART, School of Law for students of Mechanical engineering. An Overview of Intellectual Property Rights was given by Ms Unanza Gulzar, Assistant Professor, School of Law, The NorthCap University. The event was coordinated by Dr Akanksha Mathur and Dr Amit Arora, Department of Mechanical Engineering. (MED2019WO005)

News from the School of Management

Guest Lectures

- A guest lecture was organized on 16 April 2019 for students of BBA Finance Currency Options. CA Manish Gupta was the speaker discussed live trading of currency options on NSE portal and detailed its working procedure. The event was coordinated by Dr Esha Jain. (SOM2019G004)
- A guest lecture was organized on 23 April 2019 by The School of Management titled "Future Prospects for Management Students. Mr Vikas Vats, President- HR Association interacted with final year students of BCom(Hons) and BBA regarding their career aspirations, goals and the requirement of industry involving the exercises on 'How to Train Your Mind' to attain focus. The event was coordinated by Dr Poonam Arora and Ms Mahima Anand. (SOM2019G005)



- A guest lecture was organised on 26 April 2019 for students of BBA titled 'Social Media and Cyber Security'. Mr Mohit Rampal, Cyber Security Evangelist & Consultant, RamoGnee Technologies Pvt Ltd was the speaker. The session was coordinated by Dr Esha Jain. (SOM2019G007)



Expert Lecture

An Expert lecture titled 'Making the transition from campus to corporate' was delivered by Mr Deepak Jain (CS), Ex-Vice President, Unitech Limited and founder of Vijayash Foundation to students of MBA on 25 April 2019. He shared his knowledge about the various aspects of making transition from campus to corporate environment. The event was coordinated by Dr Jahanvi Bansal. (SOM2019G006)



Faculty Activity

Dr Preeti Chawla, Assistant Professor, attended the Summit on promoting Green, Sustainable & Innovative MSMEs in India under the aim of strategizing on the aspect of Eco-Friendly Manufacturing practices, Digital Transformation & Innovation and Green and Sustainable MSMEs in India on 24 April 2019 at India Habitat Centre, New Delhi organized by ASSOCHAM. (SOM2019O006)



Industry Interface

Enduring NCU's sturdy focus on facilitating industry interface, 64 students from BBA, BCom and MBA accompanied with the faculty members from School of Management (SOM) Dr Priyanka Banerji and Dr Jahanvi Bansal visited Khodri Power House Dakpathar, Uttarakhand, Khodri HEP, A Run-of-River scheme with surface Power Station on 5 & 6 April 2019. (SOM2019V004)



News from the School of Law

Faculty Activity

Dr Shabana Shabnam, Assistant Professor Selection Grade, SOL, presented a paper under the theme 'the responsibility of State under International Law' in an International Conference on Domestic Reception of Public International Law at Campus Law Centre, Faculty of Law, University of Delhi on 12 and 13 April 2019. (SOL2019O022)



- Dr Balwinder Singh, Ms Pallavi Bajpai and Ms Anushka Choudhary, Faculty Members, School of Law along with students of BBA. LL.B (H) attended the lecture on Human Rights: Contemporary Issues by Prof. Upendra Baxi on 26 April 2019. (SOL2019O026)



Legal Awareness Quiz

- A legal awareness quiz was organized by School of Law in association with DLSA, Gurugram held at various schools across Delhi NCR on 30 April 2019. The programme was coordinated by Anushka Choudhary, Assistant Professor, SOL. (SOL2019O028)



Guest Lecture

- A guest lecture was organized at School of Law on 'International Business, Human Rights and Social Responsibility' for final year students by Andy Unger - Head of the Law Division, London South Bank University on 23 April 2019. It was coordinated by Garima Lakhmani, Assistant Professor. (SOL2019G003)



News from the School of Professional Attachment (SPA)

Placements activities during the month of April 2019

DATE	NAME OF THE COMPANY	DEPARTMENT	CORE COMPETENCIES	NO. OF STUDENTS
25 March 2019	MoWize	BBA	Mowize-is an investment banking and wealth tech company	2
28 March 2019	Madan Media India (BBC World Service)	CSE, ECE	Madan Media India Private Limited is into the field of Broadcast Media.	1
3 & 8 April 2019	Coral Research Services	MBA, B.Tech(All Branches)	Coral Research Services provides a wide range of Qualitative Market Research solutions, and comprehensive and timely insights.	1
11 April 2019	Plasser India	ME	Plasser India manufactures the most up-to-date high performance and highly sophisticated machines for track maintenance, track laying as well as track renewal.	11
12 April 2019	RedCarpet	BBA,MBA	RedCarpet is a Google & YC funded fin-tech company empowering Indian students financially.	6 selections (Internship)
15 April 2019	Nagarro (Boot camp)	CSE,ECE	Nagarro is a custom software development and business consulting company.	7 selections (Internship)
23 April 2019	Jones Lang LaSalle (JLL)	ECE, ME	Jones Lang LaSalle Incorporated or JLL is an American professional services and investment management company.	3
24 April 2019	Bridgegroup Solutions	MBA, BBA, B.Com	Bridgegroup Solutions is an emerging leader in the highly unorganised and diversified Financial Sector	21 selection (Internship)
25 April 2019	Planetspark	UG All Branches	PlanetSpark is a Seed Funded (by FIITJEE Limited) Edtech startup based out of Gurgaon.	1 selection (internship)



Plasser India Process



JLL Process



Planet Spark Process

Exclusive Interactive Session with Mr Jitin Chawla

Mr Jitin Chawla, An MBA graduate from one of the top most business institutes of India, Faculty of Management Studies (University of Delhi) and the Founder and Director of North India's top most career counseling & study abroad firm, Centre for Career Development, conducted the career counseling session on 9 April 2019 for students of BTech, MBA & Law .

Pre placement interactive session with TCS

Pre placement interactive session with TCS organized by SPA on 25 April 2019 for pre final year students of BTech (All Branches, 2020 pass out batch)



Mr Rajit Sikka, Head Academic Relations India North, TCS during the session

Student's Placement Experience for Session 2019



Sushma Yellapragada
Placed with: Deloitte
Technology Analyst
Batch 2015-19
BTech-CSE

As a placement cell coordinator, I have experienced the proud and happy moments of my seniors being recruited in Deloitte and have since wanted to become a part of this organization. The

charm that Deloitte has on our campus inspired me every day to work harder and get to know more about Risks and Advisory. It has been an exciting and anxious journey from preparing for the aptitude tests to appearing for the interviews.

Our University, the faculty from CSE and most importantly SPA have played a vital role in helping us successfully secure this opportunity. They have regularly kept us informed about the placement drive updates, provided us with good online and offline resources for preparation and have helped us gain industry exposure through workshops by various organizations.

I would like to tell my junior batches that there is nothing you can do two days prior to the interview to get yourself a job with one of the Big Four. Consistency, quality knowledge about your subjects and fine communication and leadership abilities will always bring you success.

Looking forward to working with Deloitte!

Research Papers Published

JOURNALS

INTERNATIONAL

- ❑ Garima Sharma*, Latika Singh and SumanLata Gautam (2019) 'Automatic Facial Expression Recognition Using Combined Geometric Features', 3D Research, Vol. 10, No. 2, pp. 14, CSE2019J013.
- ❑ Ankit Srivastava*, Vijendra Singh and Gurmeet Singh (2019) 'Sentiment Analysis of Twitter Data- A Hybrid Approach', International Journal of Healthcare Information Systems and Informatics, Vol. 14, No. 2, pp. 1-16, CSE2019J014.
- ❑ Ruchi Gupta, Anil Kumar Misra* and Vaishali Sahu (2019) 'Identification of water shed preference management areas under water quality and scarcity constraints: Case of jhajjar district watershed, India', Applied Water Science, Vol. 9, No. 27, CEE2019J004.

NATIONAL

- ❑ Surbhi Dewan*, Sumanlata Gautam and Latika Singh (2018) 'Interactive Speech based assistive game for improving spoken language skills in children with learning disabilities', Indian Journal of Computer Science, Vol. 3, No. 3, pp. 26-35, CSE2019J012.
- ❑ Bilal Ahmed and Praveen Kumar* (2018) 'Protection of Victims of Crime in India: Compensation and Rehabilitation', MDU Law Journal, Vol. 20, pp. 177-190, SOL2019J002.
- ❑ Bilal Ahmed and Praveen Kumar* (2018) 'Judicial Activism: A Tool to Protect and Widen the Scope of Civil Liberties Provided under the Indian Constitution', CPJ Law Journal, Vol. 8, pp. 90-98, SOL2019J003.
- ❑ Subhash C. Kundu*, Jahanvi Bansal and Mukesh Pruthi (2019) 'Perceived Workforce Diversity and Firm Performance: A Study of an Indian Public Sector Organization', Journal of Strategic Human Resource Management, Vol. 8, No. 1, pp. 47-60, SOM2019J009.
- ❑ Subhash C. Kundu*, Jahanvi Bansal, Archana Mor and Mukesh Pruthi (2018) 'Workforce Diversity Status in Indian Public Sector: A Study of Employees' Reactions', Journal of Organisation and Human Behaviour, Vol. 7, No. 2-3, pp. 34-46, SOM2019J010.

CONFERENCE PROCEEDING

INTERNATIONAL

- ❑ Kavita Khanna, Rita Chhikara, Deepika Bansal*, Rakesh Kumar Dua and Rajeev Malhotra (2019) 'Analysis of Classification and Feature Selection Techniques for Detecting Dementia', International Conference on Sustainable Computing in Science, Technology and Management 0(SUSCOM-2019), pp. 1768-1773, CSE2019P003.

CONFERENCE PRESENTATION

INTERNATIONAL

- ❑ Akshat Aditya Rao (2018) 'Precursors of E-shopping in India: An empirical study', 12th North American Society for Marketing Education in India Conference 2018, Great Lakes Institute of Management, Chennai, SOM2019C001.

Note: * for Corresponding Author

CALL FOR PROPOSALS (Feb-2019)

S.No	Call for Proposal	Last Date
1.	Department of Science and Technology (DST) - Water Technology Initiative (WTI Call 2019)	15.05.2019
2.	The United States – India Educational Foundation (USIEF) - Fulbright-Nehru Excellence Scholarship 2020-2021	15.07.2019
3.	DST -Science and Engineering Research Board - Start-up Research Grant (SRG) - 2019	30.04.2019
4.	Einstein Forum along with the Daimler and Benz Foundation - Einstein Fellowship 2020	15.05.2019

Student Activity

- ❑ 10 April 2019, a group discussion on 'Should import of Chinese goods be banned in India?' was organized by The Economic Collective for students from BBA and BCom(Hons). The discussion ranged from the trade between India, China and US to politics, SMEs, Make in India, dumping, UN regulations and what all effected trade. The event was organized by Dr Priyanka Banerji and Ms Aditi Vallabh. (SOM2019O002)
- ❑ On 13 & 14 April 2019, a National Client Consultation Competition (L'ÉGALITÉ) was organized at Bennett University, Times of India Group, Greater Noida in which students from School of Law, Amardeep Chahal and Mayank Dahiya participated and reached to the National Stage and bagged runners up position. (SOL2019O023)
- ❑ Pooja and Umang students of BSc(H) Maths- III year, have qualified IIT-JAM 2018 (Joint admission test for MSc at IIT's, NIT's, IISER).
- ❑ International Model United Nation (MUN) was organised by Jamia Millia Islamia University, Delhi on 6 & 7 April 2019 with the participation of more than 300 delegates from 15 different Countries. Students from The NorthCap University participated and Karan Kataria, BBA. LL.B (H) secured 1st prize with the Best Delegate award in representing Atal Bihari Vajpayee in Historical All India Political Party Meet. (SOL2019O019)



- ❑ Saubhagya Chauriha and Paratyush Arora from School of Law participated in the 1st Delhi Metropolitan National Client Competition which was held on 5 April 2019 and were adjudged as the Winners of the Competition. (SOL2019O018)



- ❑ A team comprising of Yashika Kapoor and Koyal Wadhwa participated in BR Trikha Memorial Delhi- NCR Moot Court Competition on 30 April 2019 and were adjudged as participants. (SOL2019O027)



- ❑ A team comprising of Manisha Pundir, Vishesh Sharma and Vijay Singh participated in National Moot Court Competition organized by Raffles University on 29- 30 March 2019 and were adjudged as Participants. (SOL2019O017)



- ❑ A team from School of Law comprising of Vanshika, Ojaswi Kulshrestha and Daksh Yadav participated in MDU- CPAS 2nd National Moot Court Competition 2019 held on 14-16 April 2019 and were adjudged as participants. (SOL2019O024)
- ❑ A team comprising of Vinayak Jayaram, Tanish Arora and Harsh Bhardwaj, students of SOL achieved a quarter finalist position in the Moot Court Competition held at School of Law, NCU and Constitutional Studies, Shobhit Deemed University, Meerut on 6 and 7 April 2019. (SOL2019O021)



- ❑ Aditya Kundu, a student of BBA.LLB 4th semester participated in the National Conference in 'Cyber Law and Administration of Criminal Justice System' held in Shoolini University on 16 April 2019. (SOL2019O025)

Professional Societies

Social Club

The Social club of School of Management organized a three day's donation drive from 10-12 April 2019 with the motto #Bringonegiveone. Students, faculty and other members from the staff joined hands for this Nobel cause by donating non-perishable food items, stationery, used toys, clothing, medicines and other useful items which were then supplied to the Slums in Gurugram. The event was coordinated by Dr Jahanvi Bansal and Ms Mahima Anand. (SOM2019O003)



Synergy Club

- ❑ The synergy club, School of Management organized a business quiz competition on 10 April 2019. It encouraged students to look beyond their textual knowledge and establish a relationship between theory and practical application of the learnt concepts. The students of BBA and BCom(Hons) participated in the quiz competition. Dr Preeti Chawla and Dr Deerga Sharma coordinated the event. (SOM2019O004)
- ❑ The Synergy Club of School of Management organized Ad-Mad, Situation Based Events and Case Study Analysis competition on 16 April 2019 in which students of BBA and BCom(Hons) participated. This enabled students to demonstrate their understanding of the world of media and to be acquainted with the promotional strategies in marketing through advertisements. It was coordinated by Dr Shilpa Sindhu, Dr Preeti Chawla and Dr Deerga Sharma. (SOM2019O005)
- ❑ The NCU Chapter of National Service Scheme (NSS) organized an Education Drive in three Government Schools of Gurugram namely, Government Senior Secondary School Sarhaul, Government Senior Secondary School Dundaheera and Government Middle School, Sector 14 on 11 April 2019 in which 78 NSS Volunteers participated under the supervision of 9 core members. A Drawing Competition was also held in all the three schools on different topics to spread awareness among students about Importance of education and the winners were awarded with goodies.

ISHARE Student Chapter

ISHARE society organized an industrial visit on 25 April 2019 for student members of the society. The students visited Emerson Climate Technologies (India) Private Limited located in Gurugram, Haryana. Student members who participated in the recently held work shop on 'Cooling load estimation' held on 27 March 2019 were distributed participation certificates. The event was organized by Dr Amit Arora. (MED2019V002)

OSA Student Chapter

OSA Student Chapter organized 'Club Fiesta' at The NorthCap University on 10 April 2019.

Students took part in the events such as Laser Archery, Beat the Clock and Be an Emoji in which the winners were given an advantage to participate and attend the upcoming events without any fee. (APS2019O013)



Exuberance

The Extra Curricular Club, School of Management organized an event 'Panorama' on 10 April 2019. It staged the activities 'Capture NCU' and '#Iwakeuptomakeup' in which students were to click the best sceneries at NCU, continuing with that, they were to be judged by the experts on the exclusive Hairdo and Makeup respectively. The event was coordinated by Dr Jahnavi Bansal and Dr Priyanka Banerji. (SOM2019O008)

Visualive Club

The club organized a Doodle Workshop on 27 April 2019 (Saturday). The workshop was conducted by Ms Himani Singh and Mr Vineet Gupta from Gemini Solutions. Ms Himani presented some of her best doodle work and taught the participants different type of doodle techniques. The contestants then drew some exciting designs using the techniques taught and the best design was awarded with a prize. (CSEW2019O01)



CIPRAT

- Centre for Intellectual Property Rights Advocacy, Research and Training (CIPRAAT), School of Law organized an expert lecture titled 'Pros and Cons of Protecting Intellectual Property Rights' for students of Law on 16 April 2019. Ms Abha Kashyap, International Patent Agent and Managing



Partner, Kashyap Partners and Associates. lectured on the recent developments on IPR with negative and positive effects of technology. The workshop was coordinated by Ms Unanza Gulzar. (SOL2019G002)

- Centre for Intellectual Property Rights Advocacy, Research and Training (CIPRAAT), School of Law organized a workshop titled 'Start-ups and the Practical approach to Patents' for the students of Mechanical Engineering on 18 April 2019. Ms Unanza Gulzar, Assistant Professor, SOL, The NorthCap University and Ms Abha Kashyap, International Patent Agent and Managing Partner, Kashyap Partners and Associates were the speakers. The Workshop was coordinated by Ms Unanza Gulzar. (SOL2019W0006)



WIE-IEEE

The Department of EECE and WIE-IEEE organized a guest lecture titled 'How to Ace an Interview' on 12 April 2019. Lieut. Rita Gangwani, a renowned motivational speaker and a celebrity pageant coach, discussed most common and useful interview techniques and fundamentals to success an interview. The event was coordinated by IEEE WIE student members Esha Changotra, Aparna Sharma, Anjali along with Ms Naresh Kumari, Assistant Professor, EECE and IEEE-NCU branch counsellor.



Sports

Inter-Departmental Athletics Tournaments

The Inter-Departmental Athletics Tournaments 2018-19 were held from 2-4 April 2019 in which students from all the departments participated. Dheeraj Sharma, Dept of SOL was awarded as the Best Athlete Player for 2018-19. The Department of CSE has won the Inter Departmental Sports Trophy for winning maximum number of medals and trophies.





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



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

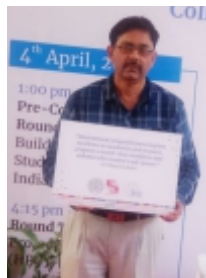
- ❑ Prof. Prem Vrat delivered lectures on "Aggregate Production Planning" at IIT Delhi on 4 April 2019 as the Honorary Professor.
- ❑ Prof. Prem Vrat attended the search-cum selection meeting as a member for personal discussion with shortlisted candidates for the position of Director, NITIE, Mumbai in MHRD, New Delhi under the chairmanship of secretary (Higher education) on 12 April 2019.
- ❑ Prof. Prem Vrat delivered lecture on TQM at IIT Delhi on 12 April 2019 as Honorary Professor in Mechanical engineering department.
- ❑ Prof. Prem Vrat chaired a meeting of Standing Appellate Committee (SAC) at AICTE, New Delhi on 15 April 2019.
- ❑ Prof. Prem Vrat attended the Prof. AK Sharma Memorial Lecture Award (2018) and Dr P Sheel Memorial Lecture Award (2017) by National Academy of Sciences, India on 27 April 2019 at the National Institute of Plant Genomics and Research, (NIPGR), New Delhi.

Outreach Activities of Prof H B Raghavendra, Vice Chancellor



Prof. H B Raghavendra
Vice-Chancellor
PhD, Indian Institute of
Science, Bangalore
MS (Research), IIT Madras
BE, University of Mysore

- ❑ Vice-Chancellor, Prof. H B Raghavendra visited the Institution as Chairman, NAAC Steering Committee during the month of March 2019.
- ❑ Vice-Chancellor, Prof. H B Raghavendra attended SIU-AIU, Third Edition of the Internationalization of Higher Education (IHE 2019) International Conference on 'Building Partnerships towards Collaborative International Learning' in collaboration with the Association of Indian Universities (AIU) and UNESCO, New Delhi held at Symbiosis International (Deemed University) SIU, Pune from 4-6 April 2019. The Conference also included Round Table on 'Health Promoting Universities (HPU)' convened by the University Grants Commission (UGC). Shri R Subrahmanyam, Secretary (HE), Ministry of Human Resource Development, Government of India inaugurated the International Conference. The Conference deliberated on several concepts, an initiatives including 'Study India', MHRD support for diversity and outreach programmes.



- ❑ Prof. H B Raghavendra attended Deloitte Dean's Summit 2019 on 8 & 9 April 2019 at Hyderabad. The Summit attracted participants from across the country including Vice-Chancellors, Deans, Policy Makers, Regulatory Bodies and so on. The topic of the Summit was 'Readiness of the Institutions for future jobs'. There were several presentations made by Industrial experts on the future jobs in emerging technologies and upcoming intelligent job profiles.

Chairman AICTE also presented the activities under taken by MHRD/AICTE for imparting the skill and technology in educational institutions. The interesting feature of his presentation was 'Credit Bank' concept for migration of students from one institution to another across country.

- ❑ Prof. H B Raghavendra was invited by Vice-Chancellor of Raffles University, Neerambra on 19 April 2019. Prospects on collaboration and research were discussed.
- ❑ Prof. H B Raghavendra was invited to visit BSAR Crescent Institute of Science and Technology, Chennai from 28-30 April 2019 to share his rich experience in preparation, evaluation and critical examination of NAAC reports. He also delivered a special lecture on Interventions in Higher Education.



From the Vice-Chancellor's Desk

Innovations & Interventions in Teaching Pedagogy in Higher Education to Promote STEM

In ancient times, India occupied a dominant position as the hub of higher education and was widely acknowledged world leader. However over a period of time the country lost its pre-eminent position. The present education system in India is based on the one introduced by British. Although it has undergone several changes after independence, and has served its initial purpose of disseminating knowledge & providing educated personnel to support the society, it has now become challenging to adopt and keep pace with needs of present-day science and technology development with demanding moral values of our society. The today's world is becoming increasingly complex, where success is driven not only by what you know, but by what you can do with what you know. It is now more important than ever for our youth to be equipped with the knowledge and skills to solve tough problems, gather and evaluate evidence, and make sense of information. These are the types of skills that students learn by acquiring knowledge. However, it is crucial that the students not only have the knowledge but should be able to apply it to solve real world problems of society. Our education system, particularly STEM education, needs to align with these needs.

Although, the Govt. of India has been taking several steps to promote Higher Education including setting up of agencies like AICTE, UGC and other institutions for promoting Science and Technology by opening/permitting large number of Higher Education Institutions (HEIs) to spread this education countrywide to meet growing demand for personnel for technology & professional education. But India still finds itself lagging in terms of quality of higher education which is being imparted, with the result that only a small percentage of students graduating with science & engineering degrees from most of these institutions are found fit for employment and research. If India has to regain its ancient prominence, it needs to build a strong base of education in Science, Technology, Engineering and Math (STEM). This is because, over various civilizations, STEM has played a vital role in the human development, from stone age to current digital era. The societies having strong STEM base have been propelled into global leadership and had great economic and strategic advantage. The western eastern divide in the world and digital divide within our society are some of the outcomes and glaring examples of STEM impact.

Various surveys tell us about the huge employment potential of STEM jobs globally. Therefore, declining interest in STEM needs to be reversed and more & more young people need to be motivated to opt for STEM education. There is also a need to impart critical thinking skills. This shall enable our students graduating out to have the chance to become the innovators, educators, researchers, and leaders who can solve the most pressing challenges facing our nation and society.

If our country has to take a quantum leap to occupy its rightful place of leadership, our education system needs to be invigorated. Innovations and Interventions in curriculum revamping and teaching pedagogy are required to improve quality & make our students employable & deployable. In particular, STEM education needs to be strengthened to match emerging global demand and quality to be acceptable for the variety of jobs.

This article identifies some of the areas where gaps exist, and improvements are required, suggests a series of interventions both in curriculum and teaching pedagogy and presents a case study of the University where these interventions have been introduced recently in STEM based programmes with encouraging outcomes.

THE GAP IN EMPLOYABILITY

Although Government has taken steps to provide access to STEM education,

particularly engineering by opening large number of engineering colleges all over the country, the quality remains a question mark. Not only the quality of graduates coming out of many institutions is not up to the mark, the relevance of class room teaching for the actual industry environments leaves much to be desired. This has created the so called industry academia gap in engineering education making a large number of our graduates unfit for employment. This also has been brought out by many surveys where employability of the engineering graduates have been placed at from as low as 7-8% to about 40%. The findings of one of the surveys conducted by NASSCOM with AICTE in 2017 substantiates these conclusions.

This is indeed a very dismal picture of the state of affairs in engineering education. This kind of scenario has generated a decreasing trend in students opting for engineering and this is evident from the declining number of aspirants sitting for JEE exams in recent years. A large number of engineering seats are also going vacant.

This trend needs to be reversed if the country wishes to provide good living standards to its entire population as well as aspires to be a global power in near future. The employability of our graduates needs to be enhanced and the gaps need to be identified & corrected.

NEED FOR INNOVATIONS IN CURRICULUM & TEACHING PEDAGOGY

It has been repeatedly brought out by studies conducted by agencies like NASSCOM, various industry experts and AICTE that our students lack practical orientation and the engineering education needs to be more hands on oriented to make them more employable. The subjects taught need to be upgraded to keep the pace with emerging technologies & industry needs and students also need to develop skills of problem solving.

Keeping in view these feedback and importance of integrating and laying balanced emphasis on STEM subjects, curriculums for UG engineering programmes have been upgraded by various IITs, NITs and other leading universities. AICTE has also studied the existing system prevalent in engineering colleges, industry requirements and market trends, employability, problem solving approach and need for lifelong learning. After due deliberations, the scheme and syllabus for various engineering disciplines have been formalized. The new Curriculum is expected to be made robust, flexible and inculcate problem solving and design thinking. The focus is on experiential and hand on learning. The NorthCap University (NCU) has always remained front runner in developing curriculum and with the help of academic and industry experts redesigned the curriculums of its various programmes incorporating the above suggested features. Further it has integrated several other features to enhance student learning experience through some of the best practices as follows:

- Integrated out of class room learning like Tinkering Lab, Incubation Centre, and professional society work with Curriculum.
- General Proficiency course, compulsory in all programmes to develop & recognize out of class room development of students through co & extracurricular activities. Special skill modules for slow learners have also been introduced.
- Foreign Language course compulsory in all programmes to give global perspective to students. This is important as the students enrolling come from different backgrounds & having secondary school education with different medium of instructions including their mother tongues for better understanding.

- Courses in English, Humanities & Social Science are also given importance, for communication skills and societal awareness development and are compulsory.
- Courses on Problem Solving and Creative Writing were introduced.

TEACHING PEDAGOGY INNOVATIONS & INTERVENTIONS AT NCU

Updating curriculum alone is not adequate and delivery & its implementation is equally important. Therefore, teaching pedagogy also needs to be upgraded & aligned to industry needs for improving quality & making our students employable. Several Innovations in Teaching Pedagogy are proposed and implemented at NCU. The focus is on identifying students' aptitude and on also more on practical work, industry exposure and hands on to bridge the gap between class room and industry requirement. Some of the initiatives recently introduced are as follows:

A. Student Portfolio Development

NCU believes that each student admitted to the University would have his/her own strengths, and facilitation by the University to further development could probably make him a successful student and human being. An innovative method to understand strength and weakness of student by the way of tracking their previous learning curve is through the creation of Student Portfolio System. Students and Parents are being given awareness and opportunity to update student achievement and interests in the portfolio maintained by the University. This enables University to complement student capabilities either through activities of his / her interest offering to him/ her and integrated in terms of curricular / Student Activities & Leadership mode. Most of the times, a careful review of student portfolio shows that the degree/stream in which he got admitted might not be in the same area of interest. However, Portfolio enables the University to identify and provide student an opportunity to pursue their interest in his/her curriculum or otherwise under a mentor through constant interaction and support. This not only makes students show better results and getting further passion to continue but also motivates in his/her chosen course of study. The development chart is drawn by the Mentor Faculty who interacts with student, parents and other teachers and encourage student take up studies in the areas of interest. These achievements can be showcased digitally to employers by students at the time of placements or as required.

The University has carried out an analysis of more than 600 students joining the University in July 2018, and identified their interests, aptitude and passion for areas other than their chosen discipline. These areas include diversity varying from sports, arts, music & drama, painting etc. and also other domain preferences. NCU shall introduce special modules to facilitate development of these skills for value additions to their profiles.

The University has recently started a Parent Information System also which keeps them informed about the progress of their wards. Various faculty members also remain in touch with parents through e-mails/phone and get their inputs/views on various aspects of our functioning. This ensures timely corrective measures both by University and parents in student's career development.

B. Project Based Learning

Extending the concept of Contextual or Experiential Learning, a new paradigm in teaching learning process is introduced with project-based learning. This is done with the close involvement of relevant industry experts in the teaching learning process. The expected outcome of this pedagogical innovation is industry ready graduates who can directly be deployed on the jobs by industry without the need for further rigorous training after graduation. The courses suitable for this mode in the programme and in demand by industry are identified for project-based learning. The delivery methodology is also changed to module based to facilitate association of industry experts with course delivery and proper execution of the project work. The work flow in the

project-based delivery is as follows:

- Association of suitable industry expert at the start of the course.
- Project identification & assignment jointly faculty and industry expert.
- Course delivery jointly by faculty & industry expert.
- Weekly/fortnightly progress review of project work.
- Evaluation of the outcome through the realized gains in terms of live project and conceptual understanding.

Since the project identified is expected to be live industry work and involves conceptualization to design, this delivery methodology is also expected to enhance analytical ability & critical thinking of students as well as produce readily deployable graduates.

C. Tinkering Lab

Tinkering Lab at NCU is considered as a playground for innovative minds. A collaborative work area packed with components, equipment, tools and software where students of any discipline with a bend for invention and innovation can come together under one roof to give shape to their new ideas. Students can design, create and engineer prototypes, new products etc. This lab contains educational and learning 'do it yourself' kits and equipment/components on Electronics Development, Robotics, Internet of Things and Sensors, Electrical and Measurement tools, Power supplies, consumables, accessories and Computers, printer etc.

This lab provides a platform for students from all backgrounds to pursue interdisciplinary ideas. The outcomes achieved by students through tinkering lab work are integrated into curriculum and are suitably recognized through award of credits in subjects like General Proficiency and other subjects which align with the outcomes.

D. Innovation, Incubation and Celebration

The new ideas / projects conceptualized by students are encouraged to be realized / tested through seed funding support by VC innovation Fund. The ideas get incubated through in-house incubation center and finally converted into saleable / commercial realizable projects. The final projects are showcased, and the best ones rewarded through technical event Technovation. More details are as follows:

- 1) Vice Chancellor's Innovation Fund (VC Innovation Fund): NCU has instituted the Vice Chancellor's Innovation Fund of Rs. 10 Million to encourage shaping of innovative ideas and to carry out basic research. The scheme aims at encouraging innovative ideas amongst research workers, faculty members and students to seed research activity. The funding from the VC Innovation Fund acts as an initial grant to nurture ideas, passion & convert products into startups. Many students have availed of this funding to develop projects of societal interest which have won awards both at NCU and outside competitions. Some have also been patented.
- 2) Innovation and Incubation Centre: NCU has established 'The Master Jagannath Centre for Excellence & Incubation' (MJCEI) the new start-up incubation platform at the University campus. The Incubation Centre has been established to advance 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 taken up an Online Food Aggregator project in collaboration with a start-up company, City Innovates Pvt Ltd, Gurugram. University has also identified several student projects to incubate further through University's internal tech fest 'Technovation'. Currently eight projects are in the pipeline and are in different phases of development with two nearing completion.

Students at NCU are encouraged to choose projects of their own choice and realize their innovative ideas into reality. The motivation behind organizing the "TECHNOVATION-Project Day" is to give students a platform to showcase their innovative ideas in the form of projects. For example, In 2018 Technovation, a total 23 ideas were converted to projects from departments out of the many that were actually made were showcased during TECHNOVATION. Some attractive ideas were crowd pulling like Elevate, Electrical Vehicle, Gesture Recognition, Personal Assistant Robot etc.

E. Thought Lab at NCU

The 'Thought Lab' a pilot project of NCU in collaboration with the Education Wing of RERF (a sister organization of Prajapita Brahma Kumaris Ishwariya Vishwa Vidyalyay) NCU is the first university in Northern India to set up a 'Thought Lab' a novel concept for stress management and for creating pure, positive and creative thoughts in individuals. It is a unique project aimed to harness the hidden and still untapped inner power of the extra-ordinary resource i.e. the Mind of the individual. The University takes pride in being one of the pioneer institutions in Delhi/NCR to offer this new concept for the benefit of its students. This facility is acting as a catalyst for the development of a robust mind and enabling students to sustain through difficult times.

F. Slow Learner's Module

For achieving full employability, it is important that all students including slow learners are provided opportunities to be able to compete for job market. Each student including slow learners are given opportunity to learn some special skill modules particularly oriented towards industry needs which help them at the time of placements.

NCU has introduced several job-oriented skill modules for slow learners as well as other interested students in all departments last year. These modules include web development, Staad Pro design, Arduino platform, Cadence software for VLSI design, CAD & 3D printing, enhancing employability skills, CNC Programming, Basic & Advanced Pneumatics & Hydraulics (by Maruti Suzuki), Air-conditioning & Refrigeration (by Daikins) and Automobile Engg. (by BMW) etc. These modules are offered to slow learners based on their interests. Other interested students can also take these modules. Equipping the students with these in demand skills is expected to improve the profile and enhance employability of the students, particularly slow learners.

This article outlines several innovations, discusses the present phase of HEIs impacting STEM education highlighting the need to change and implement design- oriented approach evaluated by the outcomes rather than an examination conducted to test the memory. The article also deals with the interventions in pedagogy proposed to further strengthen our system of education. Authors also presented a brief outline of activities initiated to convert pedagogy from classroom learning to project based learning supported by several platforms to improve quality of our engineering graduates and enhance their employability and deployability.

The implementation of these ideas at NCU has shown good results gaining popularity among the students to learn and involve through general proficiency mode. The outcome is very encouraging, and performance is going up. In our view, implementation of some of these ideas shall be helpful in producing industry ready STEM workforce and reduce the gap between industry and academics which has been a major reason for low employability of the graduates.

