

# contents

# **EDITOR'S NOTE**

A journey that started from somehow getting hold of a four-page newsletter from a campus hotspot, comes to an end fifteen editions later. My final editor's note takes me back to the very first article I penned in collaboration with a senior. I was sceptical about our piece but nevertheless, it was well received. So began a spree of experimentations with some of the most talented writers of DTU. Articles ranged from general student tips to festival celebrations to introspections. There were times when we experimented with new media of storytelling, while on other occasions, we stuck to our winning formulas. Our experiments were not limited to print editions but went way beyond, into the digital realm. Every social media post involved hours of discussions and debates which culminated in the perfect post. Our endeavour to cover every event at DTU has taken our columnists from front rows to front doors to the back-stage. Every photograph, illustration or design has involved multiple iterations of work which culminated in the right post. DTU Times as an entity has evolved in part due to the overachieving students of DTU. The news is nothing without the newsmakers and it is through their achievements that this newsletter has grown to where it is today. As my tenure comes to a close, a new chapter of DTU Times awaits our readers, where we do what we do best, with renewed alacrity.

## FROM THE DESK OF THE VICE CHANCELLOR

As another academic year comes full circle, I would like to applaud the the faculty members, student community and the staff of the University for taking it to greater pinnacles with DTU being ranked 34 in the Engineering category of the India Rankings 2019 of National Institutional Ranking Framework, witnessing an increase of 7 places from 2018.

Invictus, the Annual Technical festival saw the culmination of intellect and technical skills in a wide range of platforms during its three-day course. Various events of both technical and business calibre were organised that aimed to encourage scientific yearning in students. I would like to congratulate the entire Technical Council and the team of Invictus for the splendid success of the fest.

This semester, Engifest soared to newer heights with a star-studded line up comprising of Vishal-Shekhar, Mankirt Aulakh and international EDM artist Quintino. The fest comprised of a plethora of events and witnessed exceptional footfall. I commend the Cultural Council and the entire Engifest team for orchestrating a fest of this colossal magnitude effortlessly.

A healthy mind resides in a healthy body. Keeping with this ethos, the Sports Council successfully organised Aahvaanthe inter-college sports fest of DTU. The fest saw immense participation over a multitude of events during the three days sports extravaganza. The gym equipment, sports complex and sports facilities saw a revamp for the event. I would like to appreciate the efforts of the Sports Council and the Aahvaan team which made this fest a huge success.

A Golden and Diamond Jubilee Homecoming Meet of the Class of 1959 and 1969 was organised by DTU and the DTU- DCE Alumni Association in February. The stellar event of the two- day meet was the Foundation Stone Laying Ceremony of Raj Soin Hall by Dr. Raj Soin, a notable alumnus of DCE. The Alumni Association also organised the Annual Alumni Meet in March which saw the presence of distinguished alumni from all spheres who have made their alma mater proud. The DCE-DTU Alumni Awards were also presented to the students and faculty members.

Finally, I wish the graduating class of 2019 the very best for their future endeavours which they will step onto with the end of this academic year. I would like to congratulate them for their successful four years of engineering.

#### **NIRF RANKINGS 2019**

The India Rankings of the National Institutional Ranking Framework (NIRF) were released in April 2019. DTU was awarded a rank of 34 in the Engineering category, an increase of 7 places over 2018, and 47 in the University category, an increase of 23 places over 2018. These contributed to an Overall rank of 71, a jump of 29 places over 2018.

#### **CLEAN ENERGY RESEARCH CENTER TO BE** SET UP AT DTU

Mr. Manish Sisodia, Hon'ble Dy. Chief Minister, Delhi announced the setting up of a Clean Energy Research Center at DTU at the Homecoming Meet for the Golden and Diamond Jubilee Batches in February 2019. The Center will come up in partnership with the Delhi Government, under the mentorship of DCE alumnus Prof. Dharendra Yogi Goswami, University of South Florida. Prof. Goswami has also donated Rs. 70 lakh for the purpose.

#### POLICY FOR PROMOTION OF RESEARCH **AT THE UNIVERSITY**



The Board of Management in its 30th meeting held in March 2019 deliberated and approved the Policy for Promotion of Research in the University. With a view of making the research more effective, a committee was also constituted under the

Chairmanship of Prof. Ashutosh Trivedi, Dean, Industrial Research & Development.

#### RESEARCH PROJECT GRANT TO THE FACULTY OF DTU

The Board of Management in its 30th meeting held in March 2019 approved Research Project Grant to the Faculty of DTU. With the view of promoting research and innovation culture in the university, the grant aims to provide financial assistance to the faculty members for them to carry out research in emerging areas of science.

#### **CENTRE FOR EXTENSION** AND FIELD **OUTREACH PROGRAM**

The Board of Management in its 30<sup>th</sup> meeting held in March 2019 approved the engagement of students under USIP in the recently-established Center for Extension and Field Outreach **Program.** It has now been planned to engage the students of DTU for conducting classes in the schools of the villages adopted by DTU. Initially, the classes will be conducted in villages including Prahladpur, Barwala, Shahbad Daulatpur, Qadirpur, Rohini and others.

#### **CANDLE MARCH FOR PULWAMA MARTYRS**

The students of DTU organised a candle march to pay homage to the victims of the Pulwama attack in February 2019. The student and teaching fraternity of DTU gathered at DSM, DTU and the OAT to pay their tributes to the departed souls.

#### FAREWELL OF PROF. ANU SINGH LATHER

Following the appointment of Prof. Anu Singh Lather, Pro Vice Chancellor, DTU as the Vice Chancellor, Ambedkar University Delhi, a farewell function was organised in February 2019, in her honour. Various members of the



Technological

Excellence

in

science

Prof.

organised the

research

of

Awards, in March 2019

to recognise and honour

engineering.

Singh,

administration and faculty addressed the gathering and paid tribute to Prof. Lather.

#### **RESEARCH EXCELLENCE AWARDS 2019**

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Hon'ble Vice Chancellor, DTU was the Chief Guest. Prof. Vikram Kumar, Emeritus Fellow, IIT Delhi, was the Guest of Honour and Prof. Ashutosh Trivedi, Dean Industrial Research and Development, DTU was also present at the ceremony. Seventy researchers of DTU were awarded the Research Excellence Award at the ceremony.



#### INAUGURATION OF MULTI-DISCIPLINARY CENTRE OF GEOINFORMATICS

The Multi-disciplinary Centre of Geoinformatics (MCG) was inaugurated by Prof. Yogesh Singh, Hon'ble Vice Chancellor in March 2019 at the Department of Civil Engineering. The centre will allow research and training across all departments in the field of



Geospatial and Geoinformatics education.

#### GAME CHANGER FACULTY DEVELOPMENT PROGRAM



Resource Human Development Center organised а two-day Faculty Development Program, 'Game Changer', in association with Global Talent Company Limited, in March 2019. Prof. Nirendra Dev, Director, Human Resource Development Center chaired the program.

#### **CURRICULUM DEVELOPMENT WORKSHOP**

Department of Applied Chemistry organised a one-day workshop on Curriculum Development for M.Tech., Polymer Technology program in March 2019. Prof. HC Taneja, Dean, Academics (PG) and Prof. Archana Rani, HoD, Department of



Applied Chemistry presided over the event.

WORKSHOP ON R AND ECONOMETRIC TOOLS **Department of Humanities**, DTU organised a one-week workshop on **R and Econometric Tools** in March 2019. The workshop was conducted in association with *DexLab Analytics*, *Gurgaon*. **Prof. Yogesh Singh**, *Hon'ble Vice Chancellor*, *DTU* was the Patron. **Prof. S.K. Garg** and **Prof. Anu Singh Lather**, *Pro Vice Chancellors*, *DTU* were the Co-Patrons. **Dr. Nand Kumar**, *HoD*, *Department of Humanities* served as the General Chair for the workshop.

#### HR CONCLAVE 2019



Delhi School of Management (DSM), DTU conducted the HR Conclave 2019 on the theme "Industry 4.0: A Catalyst for transformations in HR" in January 2019. Rajan Yadav, Prof. Head of Department, Delhi School of

Management gave the opening speech. The speakers included Mr. Apoorv Srivastava, Manager/Principal Consultant, GRID, PricewaterhouseCoopers, Mr. S. Manish Singh, Founder and Managing Director, Progilence Capability Development Private Limited, Mr. Manish Sharma, HR Business Partner, IBM India Pvt Ltd, and Mr. Rajat Kumar Sharma, Human Resource Officer, Tata Consultancy Services.

The event was followed by an open question-answer session on the theme. The conclave concluded with a vote of thanks by **Dr**. **Meha Joshi**, Assistant Professor, Delhi School of Management.

#### SUSTAINABLE TECHNOLOGIES FOR ENVIRONMENTAL MANAGEMENT

Department of Environmental Engineering, DTU organised the TEQIP-III sponsored 2<sup>nd</sup> International Conference on Sustainable Technologies for Environmental Management in March 2019. Prof. Yogesh Singh, Hon'ble Vice Chancellor, DTU was the Patron. Prof.



**S.K. Garg** and **Prof. Anu Singh Lather**, *Pro Vice Chancellors*, *DTU* were the Co-Patrons. **Prof. S. K. Singh**, *HOD*, *Department of Civil Engineering* served as the Chairman. The conference was coordinated by **Dr. A.K. Haritash** and **Dr. Rajeev Mishra**, *Assistant Professors*, *Department of Environmental Engineering*.

#### **ICBM 2019**

Delhi School of Management, DTU organised the International Conference on Business & Management, with the theme "Disruptions in Business - Embracing the Age of Digitalisation", in March 2019. Prof. Yogesh Singh, Hon'ble Vice Chancellor, DTU was the Patron. Prof. S.K. Garg and Prof. Anu Singh Lather, Pro Vice Chancellors, DTU were the Co-Patrons. Prof. Rajan Yadav, Head, DSM served as the Conference Chair.

#### CELEBRATING MAGGI BABA'S 94<sup>th</sup> Birthday



DTU celebrated the 94<sup>th</sup> birthday of **Maggi Baba** in April 2019. The ceremony organised in his honour included the presentation of a contributory present from the student community of DTU.

#### PRASTUTI 2019

Department of Environmental DTU Engineering, in association with Institute Jadan of Management Studies, Rohini organised Prastuti 2019, an inter-college technomanagement presentation contest



on *"Environmental Sustainability: Challenges & Opportunities"* in March 2019. Dr. Praveen Arora, Dean, IPU Affiliated Programs, IPU was the Patron, and Prof. S.K. Singh, HoD, Department of Environmental Engineering, DTU served as the Technical Program Chair. Dr. Anil Kumar, Director, Department of Environment, Govt. of Delhi was the Guest of Honour and Mr. Radhey Shyam Tyagi, Member, Water Supply, Delhi Jal Board, Govt. of Delhi was the keynote speaker. 32 entries were shortlisted for the presentation. In conclusion of the event, four prizes were given, two in each track, one for Best Paper and one for Most Innovative Idea.

#### GUEST LECTURES AT THE DEPARTMENT OF DESIGN

The **Department of Design** continued their guest lecture series with seven lectures between February and April 2019.

The fifth lecture of the series was given by Mrs. Yamini K. Iyer, who is a product designer, consultant and entrepreneur. The next lecture was delivered by Mrs. Bindoo Rajan, Centre Head, New Delhi, National Institute of Design, who spoke about developments



in textile design over the country. This was followed by a lecture delivered by **Ms. Tanya Garg**, *M.Des.* Student, Politecnico di Milano, Italy. The next lecture in the series was delivered by **Mr. Aakash Kumar**, Manager-User Experience, MakeMyTrip.

*com*, who spoke about creating the best experience for the user and the process of design development. This was followed by a guest lecture by **Prof. S.K.S. Kushwaha**, *Advisor, Faculty of Fine Arts, MRID, The Maharaja Sayajirao University of Baroda.* The next lecture saw **Mr. Rishab Manocha**, *Creative Head, Vanitas Collections* acquaint students with his work in textile design. The eleventh lecture in the series was delivered by **Prof. Puneet Tandon**, *Department of Design, IIITDM Jabalpur* followed by an address by **Prof. Sunil Pandey**, *Department of Mechanical Engineering, IIT Delhi.* 

The lecture series is coordinated by Prof. S.G. Ranjan, Department of Design under the patronage of Prof. Ranganath M. Singari, HOD, Department of Design. Mr. Neeraj Rathee, Assistant Professor, Department of Design is the Faculty Coordinator.

#### **ICSPVCE 2019**



Department of Electronics & Communication Engineering, DTU organised the 1<sup>st</sup> International Conference on Signal Processing, VLSI and Communication Engineering (ICSPVCE - 2019) in March 2019. The conference was technically sponsored by *IEEE Delhi Section.* Prof. Yogesh Singh, Hon'ble Vice Chancellor, DTU was the Chief Patron. Prof. S.K. Garg and Prof. Anu Singh Lather, Pro Vice Chancellors, DTU were the Patrons. Prof. S. Indu, HoD, Department of Electronics and Communication Engineering, DTU, served as the General Chair. Prof. Neeta Pandey, Department of Electronics and Communication Engineering, DTU, was the Technical Program Chair.

The conference aimed to promote research and development and to bridge the gap between academia and industry in the field of Signal Processing, VLSI and Communication Engineering. The conference focused on creating a common platform for dialogue in the respective fields, which have a profound impact in the domain of Electronics and Communication Engineering.

The conference was attended by a number of researchers and scholars. **Prof. Anil Sahasrabudhe,** *Chairman, All India Council of Technical Education* graced the conference as the Chief Guest. **Prof. Mohan M. Trivedi,** *University of California, San Diego* and **Dr. S.C. Dutta Roy,** *IIT Delhi* were the Guests of Honour.

## **"EVERY STUDENT CAN MAKE THE NATION PROUD"**

**DTU Times interviewed Prof. Anil D. Sahasrabudhe**, Chairman, All India Council for Technical Education (AICTE), who was the Chief Guest at the 1<sup>st</sup> International Conference on Signal Processing, VLSI and Communication Engineering organised at DTU.

#### How have you seen the technical education field change over the years?

Technical education started with IIT Roorkee as the University of Roorkee and Thomason College in 1847. Now, we have about 160+ years of technical education in this country. In the early years, there were certificate/ diploma programmes, and later on, these graduated into degree programmes and some colleges became IITs and NITs. Subsequently, after Independence, several IITs and NITs came up, while DCE started in 1941. A massive expansion in the technical field took place in the country.

#### What is your vision for India's technical education Institutes?

When this massive expansion took place, we had access and equity; access to anyone who wanted Engineering education, and equity in terms of caste, religion or location - be it rural or urban. Even though access and equity have been matched very well, when it comes to quality, only 20% of institutions are of high quality. 30-40% are moderately good and the remaining 30-40% are very poor. Our target is to convert the borderline 30-40% institutions into good institutions. Once we are able to lift all of them, we will be the best technical education provider in the world.

How can students be motivated to pursue research activities, since only a few voluntarily enter this field? I think motivation is sometimes required, but more importantly, when you show the students the possible challenges, then they will start thinking on their own. That itself is self-motivation. If a student sees a problem, then he can understand the solution and wonder how he can help provide a better solution. Motivation and inspiration also come from either a field visit or by seeing faculty and professionals undertaking research.

#### What are your views on the large number of vacant seats in technical institutions?

Vacant seats are remaining because the expansion was sudden and way more than necessary. In fact, in some states, the number of science stream students passing out of class twelfth is way less than the seats available. Nowadays, students join an institution only if the quality is combined with placement promises. Hence, the gap between vacant seats and mass expansion should balance out in the next four to five years.

#### Is the 75% attendance bar really necessary for students?

The 75% attendance bar is for students to come and forcefully sit in class. If the teaching-learning process is efficient, they will attend classes without any rules. Students will attend classes if, and only if, they get new and exciting knowledge. If something is available on a website or on the Internet, I wouldn't bother coming to classes. Students, as I would like to believe, are not at fault, it is teachers who have to go one step ahead and teach beyond what is available online and discuss challenging problems from those topics.

#### What is your message for the students?

I have emphasised that opportunities available for students are plenty and span across all domains. Every student has opportunities wherever his passion and commitment lie and if he works without expecting anything in the short term and is willing to put in the time with all sincerity, success is bound to follow and hence, every student can make the nation proud.



## HOME COMING - ALUMNI MEET -

Delhi Technological University, along with the DCE-DTU Alumni Association, organised the Golden and Diamond Jubilee Homecoming Meet of the Classes of 1959 and 1969 in February 2019. The two-day meet started with the Foundation Stone Laying Ceremony of Raj Soin Hall. Dr. Raj Soin and Mrs. Indu Soin laid the foundation stone of the proposed multi-purpose Raj Soin Hall near DTU Lake. The ceremony was graced by Prof. Yogesh Singh, Hon'ble Vice Chancellor, DTU, Prof. S.K. Garg and Prof. Anu Lather, Pro Vice Chancellors, DTU. The first day of the meet commenced in the Dr. B.R. Ambedkar Auditorium. Mr. Manish Sisodia, Hon'ble Deputy Chief Minister, Delhi graced the event as

the Chief Guest. The event included addresses by the various dignitaries present as well as the presentation of videos prepared by the 1969 and 1959 Classes. The faculty members of the batches were also felicitated.

The alumni members visited the various departments and laboratories and interacted with several Deans and HoDs. A tech exhibition presented by various tech teams and incubated companies of DTU showcased recent projects and achievements.

The events of the second day took place at the old DCE campus at Kashmere Gate. The participants gathered in the campus for the event in the presence of **Mr. Karnal Singh**, *IPS*, *former Chief*, *Enforcement Directorate* and **Prof. Yogesh Singh**, *Hon'ble Vice Chancellor*, *DTU*. The alumni members visited their old classrooms, revamped laboratories, and other campus spots. The day ended with lunch. The meet provided a great platform for alumni members to catch up with old mates, interact with current college students and observe the changes their alma mater has been through.

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## IF I WAS TO GRADUATE FROM INDIA TODAY, I WOULD NEVER LEAVE THE COUNTRY

DTU Times interviewed Dr. Raj Soin, *Founder, Soin, LLC* and DCE alumnus of the Class of 1969, who visited DTU as the Chief Guest at the Homecoming Alumni Meet 2019.

#### How pivotal has the role of DCE been in your achievements?

DTU has made a profound difference in my life. One of the major reasons behind it would be how, as young teenagers right out of high school, we had never really explored the vast world. DTU was my first experience away from home, and meeting students from all over the country gave me the sort of exposure that made a lasting impression.

Secondly, college life is also the time when one makes long-lasting friends. I still have friends from our '69 batch, and we meet 2-3 times a year despite how different our lives have become now. The best part is how we still get to learn from each other. People talk about how college is all about learning from books, but what we study here becomes very obsolete in ten years. What remains is understanding how to learn and deal with mankind.

#### In the past few years, you have been a benefactor for many in the education system. What was your motivation behind this?

If you take a look at what we achieve in life, a lot of it has to do with our early education. As an engineer, I realised that there was a lack of good business schools, and I still feel that it set me back in life a little. I had to learn business the hard way, with hands-on experience. Today, what we teach in my schools and colleges is the convergence between engineering and business.

Moreover, I wholeheartedly support two causes - education and healthcare. If you feed a hungry person once, you'd have to do it every day for it to bear some consequence. Whereas education is a more permanent solution, and improves the standard of living for all individuals.

#### What is your take on the atmosphere in the US, especially for students who want to pursue further studies there?

Politically and socially, the environment is changing very radically. In the US, people used to be very welcoming for anyone wanting to pursue further studies. However, over time this has transitioned and there are multitudes of people coming in that have started demolishing the US welfare system. Nonetheless, for a person seeking higher education and adding some value to the country's economy, the gates are always open. The steps they have taken to control their borders come across as shocking probably because this is the first time anything of this sort is happening. But for someone seeking knowledge, they are still very welcoming.

#### How drastic has the change been in DTU since your time here and what would you like to say to the students that are currently studying here?

The infrastructure and facilities are excellent. As a leading technological university, our labs should be at par as well. Technology must be put to use to ensure that the students get a more accurate picture of what is going on in the outside world.

That being said, if I was to graduate from a college in India today, I would never leave the country. There is enough funding available these days, and all ideas are being appreciated and supported.

## ONCE YOU BECOME PASSIONATE, YOU WILL ACHIEVE SOMETHING BIG

DTU Times interviewed Prof. D. Yogi Goswami, *Director, Clean Energy Research Center, University of South Florida* who visited DTU for the Homecoming Alumni Meet and as the Chief Guest at the inauguration of Invictus 2019.

#### Can you please tell us more about your journal, which focuses on Solar Energy and Heat Transfer?

This journal is the oldest and the most prestigious in its field; I tend to be biased towards it as I am the Editor-in-Chief! But, it is a comprehensive journal which covers many areas thoroughly.

I have a team of editors well-versed in Solar Resources and Meteorology, Solar-Thermal Applications, Photovoltaics and Concentrating Solar Power from around the world who further have fifty-six Associate Editors with years of research in their respective fields, to manage this vast journal.

#### What improvement in Solar Energy can be made to make it more efficient?

Be it Nuclear Energy, Thermal Energy, or Solar Energy, if we are converting it to heat and then to power, it is done by a thermodynamic cycle in which a part of the heat needs to be rejected and hence, the efficiency of the process is at most 50-55 percent. The remainder energy is rejected into the environment. We are looking into ways where that rejected energy can also be utilised. I developed a thermodynamic cycle which is known as the Goswami Cycle, where the energy that is dissipated is utilised to give some other output, for example it can be used for desalination as the temperature required to do so is very low or to produce cooling.

A great amount of research is also being done in the field of Photovoltaics and power conversion using the wave nature of light which can yield up to eighty percent efficiency.

#### We would like to know more about the incident that pushed you to work in the field of Solar Energy.

I remember the oil embargo imposed by the Arab countries had led to a shortage of petroleum in western countries which led to huge lines for buying gas for the vehicles. Upon seeing this, I questioned if oil was the future source. If the rate of consumption of oil and natural gas remains the same, they will get exhausted soon. As the time was limited, I started thinking of future sources of energy, and indulged myself in the knowledge of Solar Energy. If you have the motivation, and a certain reason to pursue, you become passionate; once you become passionate, you will achieve something big.

#### What role has DCE played in all that you have achieved?

Your first college is where you learn a lot and where your basic development takes place. In that respect, DCE has played a very important role in my life. Not just the education, but the camaraderie of all classmates, as well as the faculty members who guided us; all of that had a tremendous impact on how I developed.

#### Would you like to give any message to our readers?

Firstly, I feel very optimistic seeing the students today, students are more active nowadays. They need to take up entrepreneurship and create jobs for others. Even if five percent of the students do so, they will create jobs for the rest of them!

# INVICTUS



The Annual Technical fest of DTU, **Invictus 2019** was conducted in February 2019. Spread over three days, the fest comprised of various competitions and seminars for computer enthusiasts, coders and technophiles from across the country.

In an encouraging development, Invictus witnessed participation from various schools and colleges of Delhi-NCR, in events including **'Code to School'** and **'Science of Intellects'**. Interactive sessions, workshops, and conferences, organised to supplement the students' knowledge with the experience of numerous achievers, witnessed great attendance.

**Code in the Dark, Python Trials, Code War** and virtual treasure hunts were competitive coding events which tried not only one's technical intellect but coding concepts as well.

Strategic Game evelopment & IPL bidding tested one's business planning skills. The talent of making the best out of waste was well recognised in the Junk Yard competition. The fest included national level hackathons like **DataHack, Codethon** and **Vihaan**.

Several tech teams of DTU demonstrated their vehicles, robots and other projects which had won several awards and prizes during the course of the year.

Invictus'19 was also graced by the co-founders of **PayPal**, **Mr. Sanjay Bhargava** and **Mrs. Anita Bhargava**, for an interactive session. In addition, the fest witnessed a long line-up of famed speakers, including **Shreya Mehta**, **Karunesh Talwar** and **Sam Baisla** at the **Student Professional Awareness Conference (SPAC) 2019.** 

Various tech teams and societies organised numerous events throughout the three days of the techfest, making it a great endeavour for students to explore their technical side and gain essential skills and knowledge. The third edition of **Aahvaan**, the inter-college sports fest of Delhi Technological University, was organised on 23<sup>rd</sup>, 24<sup>th</sup> and 25<sup>th</sup> February 2019. With approximately 2500 participants, the festival saw massive participation from colleges all over Delhi and beyond. Aahvaan kicked off with a formal **inauguration ceremony** in the presence of **Prof. Yogesh Singh**, *Hon'ble Vice-Chancellor, DTU*, among other dignitaries including **Dr. R.C. Singh**, *Chairman, Sports Council* and **Dr. A.K. Srivastava**, *Director, Physical Education*.

The fest showcased a variety of sporting events, including cricket, volleyball, lawn tennis, handball, football, basketball, badminton, athletics, kabaddi, chess, table tennis and powerlifting tournaments. Players from several institutes such as *Lady Shri Ram College for Women, NIT Kurukshetra, Sri Venkateswara College, Hansraj College, Shaheed Bhagat Singh College* and *Shaheed Sukhdev College of Business Studies* competed against each other.

The **pronite** on the first day witnessed a vibrant performance by *The Unplugged Project*, a bilingual cover band from Delhi. They mesmerised the audience with their melodious tracks. The performance was followed by a demonstration by the *Indian Fly Jumpers Group*, who exhibited their extraordinary jumping skills.

Aahvaan concluded with a **felicitation ceremony** in which the winners were awarded their prizes.

# AAHVAAN

**Engifest'19,** the annual cultural festival of Delhi Technological University, was organised on 16<sup>th</sup>, 17<sup>th</sup> and 18<sup>th</sup> February 2019 by the **DTU Cultural Council.** The three-day extravaganza began with a formal inauguration ceremony held on 15<sup>th</sup> February 2019 at the Dr. B.R. Ambedkar Auditorium in the presence of **Prof. Yogesh Singh**, *Hon'ble Vice Chancellor, DTU.* The ceremony concluded with a **Kavi Sammelan.** 

The fest saw massive participation and huge footfall from several colleges and universities in Delhi and across north India. Numerous events were also organised by the cultural societies of DTU including Vrind, Paridhan, Spandan and Nukkad. The bustling campus was decorated in harmony with this year's theme - Rise Above **Reality.** A wide range of informal games and activities such as zorbing, karaoke, mystery rooms and ziplines were also conducted at the hotspots of campus. A YouTube Fiesta was organised, which saw well-known YouTubers including Elvish Yadav, Lalit Shokeen, Tanya Khanijow and the Burning Brains interacting with the crowd. Comedians Nishant Tanwar and Rahul Dua had the audience in splits with their



#### Rise Above Reality

punchlines along with **Mayank Rathi**, who astounded the crowd with his magic in the **Humour Fest**. An **International Fiesta** packed with mesmerising performances by fire artists from Ukraine, Israeli band **Nir Koren** and contemporary French dancer **Mathilda Vrignaud**, was also a part of this edition of the fest.

The main attraction of the first evening was the performance by the renowned music composer duo of **Vishal-Shekhar** in **Livewire**. The penultimate day saw Punjabi artist **Mankirt Aulakh** perform his chartbusters to an exuberant crowd on **Punjabi Night**. The 45<sup>th</sup> edition of the annual cultural festival concluded with the audience grooving to the foot-tapping beats of internationally acclaimed **DJ Quintino**.





## Faculty News

### Awards, Honours, Conferences.

#### Prof. S. Indu, HoD, Dept. of Electronics and Communication Engineering

- General Chair and Organiser, International Conference on Signal Processing, VLSI and Communication Engineering 2019, Department of Electronics and Communication Engineering, DTU
- Received a Project, Indian Heritage in Digital Space, Department of Science and Technology
- Organiser, Industry-Academia Meet, Intelligent Vehicles and Intelligent Transportation Systems, DTU



#### Prof. Jaigopal Sharma, HoD, Dept. of Biotechnology

• Co-Convener, Hands-on Training Programme, 'Recent Advances in Fish Nutrition' (Sponsored by the Department of Biotechnology, Govt. of India), Department of Zoology, University of Delhi, New Delhi

#### Prof. A. S. Rao, Dept. of Applied Physics

• Speaker, 'Materials Characterization Techniques', K L University, Vijayawada, Andhra Pradesh

#### Prof. Amit Pal, Dept. of Mechanical Engineering

- Commendable Research Award
- Lecturer, QIP on 'Sustainable Development: Methods & Practices', MITS Gwalior
- Lecturer, 'Emerging Trends in Thermal Engineering', MNNIT Allahabad

#### Prof. Ashok Kumar Gupta, Dept. of Civil Engineering

- Session Chair, 'Symposium of the International Association for Computer Methods and Advances in Geomechanics', IIT Gandhinagar
- Member, 'The Master Research Award Evaluation Panel', IIT Gandhinagar

#### Prof. Pravir Kumar, Dept. of Biotechnology

- Speaker, 'Ubiquitin E3 ligases, stress proteins, biomolecules and neurodegenerative disorders 2019', Department of Biomedical Engineering, University of South Florida, USA
- Speaker, 'Physiological and pharmacological stimulus in the neurodegenerative disorders 2019', Department of Biomedical Engineering, Cullen College of Engineering, Texas, USA

#### Prof. Rajeshwari Pandey, Dept. of Electronics and Communication Engineering

- Commendable Research Award
- Reviewer, IET Circuits, Devices & Systems
- Reviewer, Circuits and Systems Scientific Research Publishing
- Reviewer, Advances in Electrical and Electronic Engineering
- Organiser and Co-Chair, International Conference on Signal processing, VLSI and Communication Engineering 2019, Department of Electronics and Communication Engineering, DTU
- Organiser, 'Health Awareness Workshop', Equal Opportunity Cell, DTU

#### Prof. R. C. Singh, Dept. of Mechanical Engineering

- Commendable Research Award
- Lecturer, TEQIP-III sponsored course, 'Surface Texturing for Green Technologies 2019', Indian Institute of Technology Delhi

#### Prof. Vijay Gautam, Dept. of Mechanical Engineering

- Research Excellence Award
- Chief Guest, FDP on 'Recent Trends in

CAD/ CAM', Vishwakarma Government Engineering College, Ahmedabad

• Lecturer, 'Selection of Materials & Mechanical Component Design: A Preview', FDP on 'Recent Trends in CAD/ CAM', Vishwakarma Government Engineering College, Ahmedabad

#### Dr. Chandra Prakash Singh, Assoc. Prof., Dept. of Applied Mathematics

- Three Commendable Research Excellence Awards
- Speaker, 'Bulk Viscosity and Particle Creation: The Possible Candidates of Dark energy', International Conference on Gravitation, Cosmology and Mathematical Physics, Department of Mathematics, GLA University, Mathura

#### Dr. Janardan Prasad Kesari, Assoc. Prof., Dept. of Mechanical Engineering

• Organiser, visit from Koryo City High School (Japan), DTU



#### Dr. Rahul Katarya, Assoc. Prof., Dept. of Computer Science and Engineering

- Participant and contributor, Otago Polytechnic and Untouched World Foundation Engineering Waterwise Programme (UNESCO Global Action Programme), Central Otago, New Zealand
- Speaker, 'Tackling Natural Disasters in India and New Zealand using Big Data & Machine Learning: The Future', Auckland University of Technology, Auckland, New Zealand
- Speaker, 'Opportunities, Issues, and Challenges in Big Data Analytics: India-New Zealand Perspective', University of Auckland, New Zealand

• Speaker, 'Role of Big Data in Climate Change: India-New Zealand Connection', Department of Information Technology, Otago Polytechnic, New Zealand





#### Dr. Ram Singh, Assoc. Prof., Dept. of Applied Chemistry

• Speaker, 'Alzheimer's Disease: Treatment Progress and Prospects', International Conference on Pure and Applied Chemistry, KL University, Andhra Pradesh

#### Dr. Shilpa Pal, Assoc. Prof., Dept. of Civil Engineering

• Lecturer, 'Dam Failure: Cause, Social Impact and Mitigation', Extreme Events, Disaster Risk Reduction and Management, VNIT Nagpur

#### Mr. Anurag Chaturvedi, Asst. Prof, USME

• Attendee, International Conference on Business and Management, Delhi School of Management, DTU

#### Dr. Deva Nand, Asst. Prof., Dept. of Electronics and Communication Engineering

- Commendable Research Award
- Session Chair, VLSI session, International Conference on Signal Processing, VLSI and Communication Engineering, Department of Electronics and Communication Engineering, DTU

#### Ms. Kriti Suneja, Asst. Prof., Dept. of Electronics and Communication Engineering

• Attendee, International Conference on Signal Processing, VLSI and Communication Engineering, Department of Electronics and Communication Engineering, DTU

#### Dr. Navneeta Bharadvaja, Asst. Prof., Dept. of Biotechnology

• Excellence in Research Award

#### Mr. Roop Lal, Asst. Professor, Dept. of Mechanical Engineering

Commendable Research Award



## **Publications**.

#### Prof. S. Indu, HoD, Dept. of Electronics and Communication Engineering

- •'Adaptive Mobile Sink for Energy Efficient WSN using Biogeography Based Optimization', International Journal of Mobile Computing and Multimedia Communications
- 'A Grey Wolf Optimization Approach for Improving the Performance of Wireless Sensor Networks', Wireless Personal Communications
- •'A Grey Wolf Optimization Based Algorithm for Optimum Camera Placement', Wireless Personal Communications

#### Prof. Jai Gopal Sharma, HoD, Dept. of Biotechnology

- 'Optimization of protein extraction from detoxified Jatropha seed cake using response surface methodology and amino acid analysis', International Journal of Environmental Science and Technology
- 'Validation of growth-enhancing, immunostimulatory and disease resistance properties of Achyranthes aspera in Labeo rohita fry in pond conditions', *Heliyon*
- 'Evaluation of immunostimulatory

properties of prickly chaff flower Achyranthes aspera in rohu Labeo rohita fry in pond conditions', Aquaculture

• 'The study of ameliorative effect of dietary supplementation of vitamin C, vitamin E and tryptophan in Labeo rohita (Cyprinidae) fry exposed to intense light', Fish Physiology & Biochemistry

#### Prof. A. S. Rao, Dept. of Applied Physics

- 'Spectroscopic Investigations of dysprosium ions doped Oxy Chloro Boro Tellurite Glasses for Visible Photonic Device Applications', Journal of Alloys and Compounds
- 'Spectroscopic Studies of Dy3+ ions doped barium lead alumino fluoroborate glasses', Journal of Alloys and Compounds
- 'Structural, Optical and NIR studies of Er3+ ions doped Bismuth Boro Tellurite Glasses for Luminescence Materials Applications', Journal of Luminescence
- 'Effect of Sm3+ ions Concentration on Borosilicate glasses for Reddish Orange Luminescent Device Applications', Journal of Non-Crystalline Solids
- •'An Electron Paramagnetic Resonance

and Photoluminescence investigation of UVB radiation emitting Gadolinium activated CaY2Al4SiO12 Garnet compound', Journal of Electronic Materials

#### Prof. Amit Pal, Dept. of Mechanical Engineering

• 'Custard apple seed oil as promising biodiesel feedstock using advanced techniques and experimental investigation on diesel engine', International Journal of Oil, Gas and Coal Technology

#### Prof. Daya Gupta, Dept. of Computer Science and Engineering

- •'Adaptive Mobile Sink for Energy Efficient WSN using Biogeography Based Optimization', International Journal of Mobile Computing and Multimedia Communications
- 'A Grey Wolf Optimization Approach for Improving the Performance of Wireless Sensor Networks', Wireless Personal Communications
- 'A Grey Wolf Optimization Based Algorithm for Optimum Camera Placement', Wireless Personal Communications

#### Prof. K. C. Tiwari, Dept. of Civil Engineering

- 'Spatial shape feature descriptors in the classification of engineered objects using high spatial resolution remote sensing data', *Evolving Systems*
- 'Loss of target information in full pixel and subpixel target detection in hyperspectral data with and without dimensionality reduction', *Evolving Systems*

#### Prof. Rajeshwari Pandey, Dept. of Electronics and Communication Engineering

• 'New sinusoidal oscillator configurations using operational transresistance amplifier', International Journal of Circuit Theory and Applications

#### Prof. R. C. Singh, Dept. of Mechanical Engineering

- 'Study of Starting Friction during the Running of Plain Journal Bearing under Hydrodynamic Lubrication Regime', SAE International
- 'Wear and friction behaviour of aluminium metal composite reinforced with graphite particles', International Journal of Surface Science and Engineering

#### Prof. Vijay Gautam, Dept. of Mechanical Engineering

• 'Experimental and Numerical Studies on Formability of Tailor Welded Blanks of High Strength Steel', *Procedia Manufacturing* 

#### Prof. Pravir Kumar, Dept. of Biotechnology

- 'Integrated mechanism of Lysine 351, PARK2 and STUB1 in AβPP ubiquitination', *Journal of Alzheimer's* Disease
- 'Can luteolin be a therapeutic molecule for both colon cancer and diabetes?', Briefing in Functional Genomics

#### Dr. Chandra Prakash Singh, Assoc. Prof., Dept. of Applied Mathematics

• 'Holographic Ricci Dark energy with constant bulk viscosity in f(R,T) gravity', *Gravitation and Cosmology* 

#### Dr. Janardan Prasad Kesari, Assoc. Prof., Dept. of Mechanical Engineering

•'Concentrated Solar Power for

Power Generation: (Opportunities & Challenges)', International Journal of Advanced Research in Science, Engineering and Technology

#### Dr. Rahul Katarya, Assoc. Prof., Dept. of Computer Science and Engineering

- 'Study on Text Classification Using Capsule Networks', IEEE International Conference on Advanced Computing and Communication Systems 2019, Tamil Nadu
- 'Survey on Opinion Leader in Social Network using Data Mining', IEEE International Conference on Advanced Computing and Communication Systems 2019, Tamil Nadu

#### Dr. Ram Singh, Assoc. Prof., Dept. of Applied Chemistry

- 'Synthesis, Characterisation and Self-Assembly Studies of Dendron based Novel Non-ionic Amphiphiles', New Journal of Chemistry
- 'Nanoneuromedicines for neuro degenerative diseases', Nanoscience & Nanotechnology – Asia

#### Dr. Shilpa Pal, Assoc. Prof., Dept. of Civil Engineering

• 'Performance of Polymer Treated Recycled Concrete Aggregate under Different Curing Condition of Concrete', UKIERI Concrete Congress – The Global Builder, NIT Jalandhar

#### Mr. Anurag Chaturvedi, Asst. Prof., USME

- •Using Beneish Model to demystify Corporate Financial Statement Fraud in Indian Steel Industries', International Conference on Business and Management, DSM, DTU
- 'Examining the Internet of Things products adoption by Millennial in India from the perspectives of Unified Theory of Acceptance and Use of Technology and Privacy Risk', International Conference on Business and Management, DSM, DTU

#### Dr. Deva Nand, Asst. Prof., Dept. of Electronics and Communication Engineering

• 'Voltage mode precision rectifiers based on DXCCII', International Conference on Signal Processing, VLSI and Communication Engineering, Department of Electronics and Communication Engineering, DTU

#### Ms. Kriti Suneja, Asst. Prof., Dept. of Electronics and Communication Engineering

• 'Hardware Modelling of Feature Extraction Functions based on FPGA in Verilog', International Conference for Signal processing, VLSI and Communication Engineering, DTU

#### Dr. Navneeta Bharadvaja, Asst. Prof., Dept. of Biotechnology

- 'Qualitative analysis and anti-bacterial investigation of Plumbago zeylanica', International Conference on Plant Biology and Biotechnology 2019, Magnus Group, Singapore
- 'Production of plumbagin from suspension culture of Plumbago zeylanica' International Conference on Advances in Biosciences and Biotechnology, JIIT Noida
- 'Adventitious root culture for secondary metabolite production from medicinal plants: A Review', International Conference on Advances in Biosciences and Biotechnology, JIIT Noida
- 'A comparative study on photocatalytic and catalytic degradation of dyes using silver and copper nanoparticles', National Conference on Recent Trends and Advancements in Chemical Science, Department of Chemistry and Bhaskaracharya College of Applied Sciences, University of Delhi
- 'Biotechnology for sustainable agriculture', Avenues in plant sciences: a hope for sustainable future, Deshbandhu College, University of Delhi

#### Mr. Ram Murti Rawat, Asst. Prof., Dept. of Computer Science and Engineering

• 'A Novel Low Power and Swing Restoration SRAM Logic Circuit Technique', International Journal of Engineering Research & Technology

#### Dr. Richa Srivastava, Asst. Prof., Dept. of Applied Chemistry

• 'Novel proton exchange membranes based on PVC for microbial fuel cells (MFCs)', Journal of Polymer Engineering

#### Ms. Ritu Agarwal, Asst. Professor, Dept. of Information Technology

• 'Image tampering detection using genetic algorithm', International Joint Conference on Metallurgical and Materials Engineering

# **RESEARCH FOCUS**

## Department of Electronics and Communication Engineering

Promotion of research has always been the primary goal of Delhi Technological University. DTU aims to encourage innovation and development in all disciplines through research infrastructure developed over the years. Starting this Edition, DTU Times will be highlighting the research activities being carried out in various departments. This edition highlights the research interests of Electronics and Communication Engineering Department. The Electronics and Communication Engineering Department has vibrant research groups in the areas of VLSI design, Signal & Image Processing and RF & Microwave.

#### Signal and Image Processing Research Group

This research group has 12 faculty members, research scholars, UG and PG students. The faculty members are **Prof. S. Indu, Prof. Rajiv Kapoor, Prof. O.P. Verma, Prof. Dinesh Kumar, Chutani, Prof. Jeebananda Panda, Prof. Rajesh Rohilla, Dr. M.S. Choudhary, Mr. Rajesh Birok, Dr. N. Jayanthi, Dr. Sudipta Majumdar, Mr. Ajai Kumar Gautam** and **Mr. Avinash Ratre.** 

The major areas of interest of this group are **Computer Vision, Image Processing, Wireless Sensor Networks** and **Medical Image & Signal Processing.** 



The group has published **approximately 150 research papers** in various national and international journals and conferences in the past five years.



#### VLSI Design Research Group

This research group has 9 faculty members, research scholars, UG and PG students. The faculty members are **Prof. Rajeshwari Pandey, Prof. Neeta Pandey, Prof. D.R. Bhaskar, Mr. Alok Kumar Singh, Dr. Poornima Mittal, Dr. Deva Nand, Dr. Malti Bansal, Mr. Anurag Chauhan** and **Ms. Kriti Suneja.** 

The major research areas are **Bipolar & MOS Analog Integrated Circuits**, **Current mode circuits, Organic Electronics, Device Modeling, Digital System Designing using ASIC FPGAs, Digital VLSI Design** and **Spintronics**.

This group has published **approximately 150 research papers** over the past 5 years in various national and international journals and conferences.

#### **RF and Microwave Research Group**

This research group has 6 faculty members, research scholars, UG and PG students. The faculty members are **Prof. Asok De, Prof. N.S. Raghava, Dr. Gurjit Kaur, Dr. Priyanka Jain, Dr. Yashna Sharma** and **Mr. Piyush Tewari.** 

The major research areas are Metamaterials, EBG Structures, SIW Filters , Millimeter-Wave and MIMO Antennas for 5G Applications.

The RF and Microwave Research Group has published **approximately 150 research** papers in various national and international journals and conferences in the past five years.



## BATCH



"On a sea of fortune are we now afloat serves, or lose

## OF2019



. And we must take the current when it our ventures."

- Class of 1999, Production & Industrial Engineering
- Worked at Tata Consultancy Services as
- Engagement Manager and Business Consultant
- Joined KPMG as one of the founding members of its e-Governance practice
- Served roles of Global Government Executive and Associate Director at KPMG
- Working as Technical Director- Strategy & Markets, KPMG



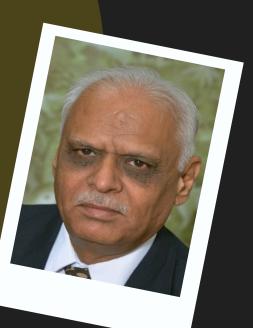


#### AVM SANJAY AGARWAL (VSM)

- B.E. in Electrical Engineering
- Commissioned in the Indian Air Force as an engineer in the Aeronautical Engineering Branch in 1984
- Has held several key appointments including Director Engineering Mirage at Air Headquarters, Deputy Command Engineering Officer at Headquarters Central Air Command, Commanding Officer of Communication Training Institute and Senior Engineer (Electronics) at Air Force Station, Gwalior
- Awarded Vishisht Seva Medal by the President of India in 2015 for his distinguished service
- Promoted to the rank of Air Vice Marshal in 2018

#### SHIV ABHILASH BHARDWAJ

- Class of 1970, Mechanical Engineering
- Distinguished Scientist of Department of Atomic Energy, Government of India and served as the Director (Technical) of Nuclear Power Corporation of India Limited
- Served as the Chairman of the Board of Directors of Anushakti Vidhyut Nigam Limited and has been the Chairman of Nuclear Fuel Complex Board
- Was appointed as the Chairman of the Atomic Energy Regulatory Board in 2015
- Recipient of Indian Nuclear Society Award for outstanding achievement in Nuclear Technology
- Fellow, Indian National Academy of Engineering



#### **ANNUAL ALUMNI MEET 2019**

The DCE-DTU Alumni Association organised the Annual Alumni Meet at the **Air Force Auditorium, New Delhi** in March 2019. The meet was graced by **Dr. Harsh Vardhan**, *Hon'ble Minister of Science Technology, Government of India* and **Prof. Yogesh Singh**, *Hon'ble Vice Chancellor*, *DTU*. The alumni fondly reminisced on their college days, and the memories they have of their alma mater.





#### ALUMNI REUNION IN HOUSTON, TEXAS

The third meeting of the North America Chapter of the DCE-DIT Alumni Association was organised in **Houston, Texas** in March 2019. More than 150 participants attended the meet and reminisced about old times. **Prof. Pravir Kumar**, *Dean, Alumni Affairs, DTU* represented the university at the event.

#### **COLLABORATION WITH UNIVERSITY OF HOUSTON, TEXAS**

**Prof. Pravir Kumar**, *Dean*, *Alumni Affairs*, *DTU* delivered a keynote address at the **Cullen College of Engineering**, **University of Houston**, **Texas**. He further interacted with **Prof. J.W. Tedesco**, *Dean and Professor*, *Cullen College of Engineering*, along with **Prof. Metin Akay**, *Chair, Biomedical Engineering Department*, and **Prof. Mohan Chandra**, *Vice Chair, Biomedical Engineering Department*, for collaboration through the 3+1+1 program between the University of Houston and DTU - an initiative by **Dr. Durga Das Agrawal**, *Regent, University of Houston, Texas*.

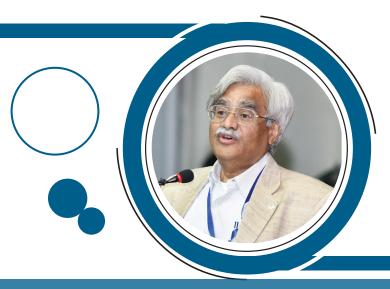




#### **COLLABORATION WITH UNIVERSITY OF SOUTH FLORIDA**

**Prof. Pravir Kumar**, *Dean*, *Alumni Affairs*, *DTU* delivered an invited lecture at the **Centre of Medical Engineering**, **University of South Florida**, **Tampa.** He visited the university to set up a collaboration between USF and DTU in the area of Solar & Clean Energy and Biomedical Engineering, proposed by DCE alumnus **Prof. D. Yogi Goswami**, *Director, Clean Energy Research Centre, USF*, **Prof. Roger Brindley**, *Vice President, USF World* and **Prof. Robert Frisina**, *Chair, Medical Engineering Department and Director, Biomedical Engineering Division*.





DTU Times interviewed **Prof. Mohan M. Trivedi**, *Electrical and Computer Engineering, University of California, San Diego*, who was the Guest of Honour at the 1<sup>st</sup> International Conference on Signal Processing, VLSI and Communication Engineering organised at DTU.

#### How have you seen the field of Computer Vision and Robotics evolve over the years?

When you're a part of the journey, you don't notice much. But the key change that has taken place is that the resources available have increased multifold. When I was a graduate student doing object detection, we used to look at wildlife through aerial sensors and it would take us days to get results. But today when students perform such analyses, vast results are obtained in a jiffy. One of the most remarkable achievements was the incorporation of Machine Learning. Prior to that, we used predefined features, which needed specific knowledge of the data. Today, we have data for every feature available for learning.

#### Do you think a motivating factor is needed for students to pursue research?

Most successful students I've seen have a high amount of self-motivation. Whenever I need to bring in new students, I tell them to interact with other students of the group since peer-to-peer interaction is extremely crucial. I make it certain that they are respectful of others' ideas and thereby help out one another. When they do so, they enjoy working and collaborating.

What is the biggest challenge that the Robotics industry faces even today?

Safety, Robustness, Generalisation and Human Centeredness. I believe that making a one-of-akind robot is no big deal, but making it robust and able to work in a variety of situations as well as interact with humans is very important, which hasn't yet been achieved. There are a lot of open issues still left unresolved. Today, a robot that works in an artificial environment is not needed; what's required is one which works in real-life situations with continuous interaction, without humans feeling threatened or stressed.

DTU Times interviewed **Dr. S.C. Dutta Roy**, former Professor, Indian Institute of Technology Delhi, who was the Guest of Honour at the 1<sup>st</sup> International Conference on Signal Processing, VLSI and Communication Engineering organised at DTU.

#### What, according to you, is the best way of learning, a teacher teaching physically, a lecture series or reading about it from a book?

You must combine all of these. But the most important thing is not to accept any notes from anyone. Unless you are satisfied, don't give up! If a teacher says something which is not appealing to you then ask why. If the teacher is clueless then don't stop, instead go on asking until the teacher is forced to explain. The same is the case with your parents, or for that matter anyone else. Unless you are satisfied, never stop trying. Always listen to and go by your conscience. Your conscience can never be wrong!

#### How do you think that the field of Electronics and Communication Engineering has changed over the years?

Well, firstly it was a composite branch. All branches grew larger in size and bifurcated into parts such as Electrical Engineering and Computer Science Engineering. But Electronics and Communication Engineering is still a composite discipline. It has its wings in various fields.

#### What are your views on the various rules that regulate research at educational institutions?

Any level of freedom must be coupled with self imposed discipline. And therefore, autonomy doesn't mean that you can do anything. You must contemplate why it is given to you and you must work within the limited frame. Similarly, in life, you are a free person but you must be bound by some self-imposed disciplines.

## VIEWS

DTU Times interviewed **Pranav Sharma**, 4<sup>th</sup> Year, COE who achieved an **All India Rank** of 1 in the Computer Science and Information Technology paper of the **Graduate Aptitude Test** in Engineering (GATE) 2019.



What has been your inspiration behind choosing GATE, amongst various options? Did passion towards your field play a role?

The reason for choosing GATE, since the start, was to be eligible for public sector jobs. I strongly believe that passion towards your branch is the most critical requirement for this journey, since during this large span of preparation, you have to remain motivated. Some candidates start their preparation only to find out later that they no longer want to continue.

What is the ideal preparation strategy for GATE? Is classroom knowledge enough? How

#### would you compare self study to coaching?

I believe that the ideal preparation strategy lies in practice. I advise every candidate to practice as much as they can. Speaking about my branch, i.e., Computer Science & I.T., we have around 9-10 major subjects, so a candidate cannot leave a single subject assuming it to be of less importance. Self study is important but I think that it is a blend of coaching and self study which gives the best results. Coaching is important because it provides you with a framework.

How did you balance between preparing for semester exams and preparing for GATE?

Finding a balance between the end semester exams and GATE preparation was, in fact, the real challenge. In this regard, I would like to thank my mentor, Mr. Sanjay Kumar (Department Engineering) invaluable contribution during the important stages of preparation. He guided me during the time when most of the candidates either drop out or get overly demotivated. Due to his assistance, I focused on revising the GATE syllabus even during the end semester exams, though it affected my CGPA.



DTU Times interviewed Lakshay Singla, *4<sup>th</sup> Year, CE* who secured **99.73** percentile in Common Aptitude Test 2018 and received an admission offer from the Indian Institute of Management Ahmedabad (IIMA).

#### When and why did you decide to pursue management? What role has DTU played in your success?

I decided to pursue management after I had the opportunity to work on a research project in IIM Ahmedabad. I realised that doing an MBA from a premier institute will not only enrich your knowledge from the professors, but also from your peers, and make you industry ready.DTU has some of the finest brains in the country. So I had the opportunity to prepare for entrance exams with them which helped me in the long run.

#### What is the best way to prepare for management entrance exams? How did you balance college work with preparation?

Most management entrance exams are aptitude exams covering topics like verbal ability, data interpretation, logical reasoning and basic quantitative ability. I suggest that aspirants can take up online or offline coaching from any reliable institute as they have a lot of experience that helps you to tackle exams better, identify weak areas and most importantly provide a mock exam series that goes a long way in making you exam-ready.

#### What advice would you like to give to all students aiming to get into IIMs and other prestigious management institutes?

My advice to all the aspirants would be that they should maintain a balance between graduation exams and MBA exam preparations. For entrance exams, which are mostly aptitude-based, they should focus on clearing the basics first and then use mock tests to prepare a strategy and identify weak areas.

Read the full interviews at dtutimes.dtu.ac.in/blog

DTU Times interviewed the Placement Coordinators and asked them about their experience in the Department of Training and Placement.

## PCs Speak Up

#### BT

One of the most interesting experiences of my life till date, hectic yet inspiring. Prof. Rajesh Rohilla, HoD, Department of Training and Placement has been a great support, picking up calls even at midnight. This year we have improved the M. Tech (Biotechnology) placements manifolds compared to last year.

#### COE

From a third person's perspective, T&P is considered as the most intimidating place of our campus. You might put your first step here with exorbitant apprehension, but you will definitely end up putting your last step out of here with boundless happiness. In unofficial words, it is a place of laughter and tears!

#### ECE

The level of enthusiasm and spontaneity is easily more than any other department in DTU which is complemented by a competent team that is always up for the task, no matter how herculean it may be.

#### EE

It is a place where one can find the widest of smiles in our campus representing the culmination of our wonderful journey.

#### EEE

You are placed on the day you wake up on the right side of the bed. No matter how hard you try, you will get placed on the day you are meant to be.

#### ENE

A place where you can build yourself, your dreams, and your future. A place where everyone wishes that they get beaten up by their friends for getting the job offer.

#### EP

Summing up T&P in one line: True friends, great mentors, strength, happiness, teamwork, learning opportunities, good food, and grey shirts.

#### IT

It's a mysterious place that can give you both gloom and glee, sometimes both simultaneously. A place of countless memories, from the intensity of the recruitment process to the happiness of being finally placed. The only place to witness a team of selfless people that make others' dream come true.

#### MAM

I think the T&P is one department in college which exceeds everyone's expectations. The department endlessly pushes its staff and coordinators to invite maximum companies for placements/internships.



#### MCE

While the T&P cell facilitates the journey of a well-deserved placement, I believe it is also a place where a fourth year grows from being a student to a professional.

#### ME

The department is strict yet flexible. The work it puts in for the students is unmatchable by any other department of the University.

#### PIE

T&P for me has been like a second home in my 4th year. Everyone knew that I would be found there or in my room. It's not just the work we did that matters to me but also the memories and laughs I shared with the team. It is an extreme example of what a team can achieve, with PCs willing to look beyond their placements and a tireless staff which works unusual timings all the time.

#### **PSCT**

Working at the T&P dept is an exceptional experience which helps one develop into a well rounded professional, incorporating skills like networking, management, handling pressure, and a lot of jugaad.

#### SE

The only place which though built with stones of the 80s can still quite easily bear the load of ever-increasing seats at DTU.

## **Student News** RESEARCH PAPERS PUBLISHED AND CONFERENCES ATTENDED

#### Mukul Tomar, Ph.D.

Aahan Malhotra, B.Tech., ME, 3<sup>rd</sup> Year Naman Choudhary, B.Tech., ME, 2<sup>nd</sup> Year Subham Mukhonadhyay, B.Tech, ME, 2<sup>nd</sup>

- Subham Mukhopadhyay, B.Tech., ME, 2<sup>nd</sup> Year
- 'Experimental Investigation of Metal-Oxide Nano additives on the working characteristics of a CI Engine', *World Congress* (WCX), Society of Automated Engineers, Detroit, USA

#### Simran Kaur, Ph.D.

• 'Matter dominated model with bulk viscosity and particle creation', International Conference on Gravitation, Cosmology and Mathematical Physics, Department of Mathematics, GLA University, Mathura

#### Yamini Arora, M.Tech., IT, 2<sup>nd</sup> Year

• 'Study on Text Classification using Capsule Networks', International Conference on Advanced Computing and Communication Systems, Sri Eshwar College of Engineering, Tamil Nadu, India

#### Amanveer Jaggi, B.Tech., ECE, 4<sup>th</sup> Year Chris Regy, B.Tech., ECE, 4<sup>th</sup> Year Joel Alexander, B.Tech., ECE, 4<sup>th</sup> Year Joy Sengupta, B.Tech., ECE, 4<sup>th</sup> Year

• 'Driver Safety Assistance System Using Augmented Reality and 4WS Approach', International Conference on Signal Processing, VLSI and Communication Engineering, Delhi Technological University

#### Joy Sengupta, B.Tech., ECE, 4th Year

• 'Instantaneous Driver Safety Assistance and Rear Wheel Maneuvering System Based on Computer Vision', *Connected and automated Automated Vehicle Conference, Society of Automated Engineers, Israel* 

#### Naman Kumar Bhalla, B.Tech., EP, 4th Year

• Nanostructured GaN and AlGaN/GaN heterostructure for catalyst-free low-temperature CO sensing', *Applied Surface Science* 

#### Megha Jain, B.Tech., ECE, 3<sup>rd</sup> Year Lakshmi Nair, B.Tech., ECE, 3<sup>rd</sup> Year

• Hardware Modelling of Feature Extraction Functions based on FPGA in Verilog', International Conference for Signal Processing, VLSI and Communication Engineering, Delhi Technological University.

#### Sudeeksha Agrawal, B.Tech., MAM, 3rd Year

• 'Optimization of Engine Performance Parameters and Exhaust emissions in CI Engine fuelled with Soapnut biodiesel blend using Artificial Neural Networks', *World Congress (WCX), Society of Automated Engineers, Detroit, USA* 

#### Archit Jain, B.Tech., EP, 2<sup>nd</sup> year

• 'Climate Change!! Trouble for the Aviation Industry?', Biolagues International Conference on Climate Change, Beijing, China

#### Karnik Agrawal, B.Tech., CE, 2<sup>nd</sup> year

• Porous Pavements for Replenishing Groundwater', *Biolagues* International Conference on Climate Change, Beijing, China

#### Prashant, B.Tech., CE, 2<sup>nd</sup> year

• CO2 Emission due to excavation', *Biolagues International Conference on Climate Change, Beijing, China* 

#### Yash Singh, B.Tech., CE, 2<sup>nd</sup> year

• 'Structural Health Assessment of Bridge', Biolagues International Conference on Climate Change, Beijing, China

#### **AWARDS & COMPETITIONS WON**

#### Simran Kaur, Ph.D.

• Young Relativist Award, *The Tensor Society, India* 



Agrima Goyal, M.B.A., 1<sup>st</sup> Year • Runner-up, Arthniti 2019, Department of Business Economics, University of Delhi

Shubhi Sareen, B.Tech., COE, 4<sup>th</sup> Year

• Best Outgoing Female Student, Shri Pralhad P. Chhabria Award Akshat Gupta, B.Tech., SE, 3<sup>rd</sup> Year Arushi Sharma, B.Tech., ECE, 3<sup>rd</sup> Year Anubha Kabra: B.Tech., COE, 3<sup>rd</sup> Year Simra Shahid, B.Tech., IT, 3<sup>rd</sup> Year Tanmay Singh, B.Tech., IT, 3<sup>rd</sup> Year Vartul Bhardwaj, B.Tech., ECE, 3<sup>rd</sup> Year • Winners, *Smart India Hackathon 2019* 



Dannish Singh, B.Tech., COE, 4<sup>th</sup> Year

• Winner, North India Region Finals, Present Around The World, *Institution* of Engineering & Technology

#### Stuti Mittal, B.Tech., BT, 3<sup>rd</sup> Year

• Best Innovative Green Model -Dr. Panjabrao Deshmukh Memorial Trophy, Shivaji College, University of Delhi

#### Sanskar Jethi, B.Tech., EE, 2<sup>nd</sup> Year

• Speaker, FOSSASIA Summit, Singapore

#### Spandan Srivastava, B.Tech., PSCT, 1st Year

• Top 20, Delhi Chess Open 2019

# SOCIETY NEWS



#### ASME drives Ahead

**ASME-DTU Chapter** organised an industrial visit to the *Railway Diesel Locomotive Shed, Tughlaqabad* and *Pragati Power Corporation Ltd.* for its members which included demonstrations of cabin control and a train engine simulator. They organised a workshop on *Aerospace and Aircraft Design* and also conducted an *Automobile Workshop* which gave students an opportunity to understand the functioning of various components of aircraft and automobiles.

#### ASSETS organises Fortune

**ASSETS**, the Finance and Economics Society of DTU organised **Fortune'19**, which included a Case Study Presentation, IPL bidding and mock stocks while **Anuraag Sunder**, *Former PwC Director* conducted a guest lecture. They also organised a workshop on *How* to Make Money from the Stock Market.





#### **DTU Bhangra** dances to Victory

**DTU Bhangra** bagged the **2<sup>nd</sup>** position in the **Folk Dance Competition** at Indraprastha College for Women, Ramanujan College and Miranda House. The team stood **3<sup>rd</sup>** in the competitions held at Pannalal Girdharlal Dayanand Anglo Vedic College, Mata Sundari College for Women, Gargi College and Sri Guru Gobind Singh College of Commerce.

#### **DTU Supermileage** conducts Carpools

Team **DTU Supermileage** organised the **Carpool Connect** to create a Carpool Community in Delhi in light of the rising city traffic aimed at encouraging daily commuters to carpool.





#### **DTU Toastmasters** organise Contests

**DTU Toastmasters** successfully organised its first ever *International Speech* and *Table Topic Contest* in March which was won by Abhinav Rastogi and Aditya Kapoor respectively. Abhinav Rastogi and Aviral Agarwal were runner-ups at *Area Level International Speech* and *Table Topic Contest*.

DTU Times • February - April 2019 • 28

#### VIBE organises Funk Republic 4.0

**VIBE**, the Dance Society of DTU organised **Funk Republic 4.0**, an intra college dance face-off which consisted of a choreography round, followed by dance battles between the teams.

The team secured the **1**<sup>st</sup> position at *Atma Ram Sanatan Dharma College* and the **2**<sup>nd</sup> position at *Pannalal Girdharlal Dayanand Anglo Vedic College* in various group performances. **Kapil Nangyal** secured the **1**<sup>st</sup> position at Miranda House. **Siddharth Gupta** bagged the **1**<sup>st</sup> place at both *Zakir Hussain College* and *IGDTUW* while securing the **2**<sup>nd</sup> place at *Ambedkar College*.





#### Team Raftaar achieves Accolades

Team **Raftaar, DTU** secured the **1**<sup>st</sup> position in *Analysis* and bagged the **5**<sup>th</sup> position in *Design* at ASME E-Fest, Asia Pacific 2019 which was held at *VIT, Vellore.* 

#### IMechE DTU conducts Guest Lecture

**IMechE** DTU chapter conducted an informative session on '*Synthesis gas as transportation fuel, progress and challenges*', which was taken by **Dr. Ftwi Yohaness Hagos**, (*PhD, CEng MIMechE*), in collaboration with **CASRAE**.





#### The Indian Game Theory Society organises Stratazenith

**The Indian Game Theory Society** organised their flagship event **Stratazenith**, at *Quark*, the Annual Techfest of *BITS*, *Goa* in February and was also organised in March, in collaboration with *Tryst*, the Annual Techfest of *IIT*, *Delhi*. **Stratazenith** was also a part of the Economics and Mathematics festival, *ORIGIN*, *Department of Mathematics, Miranda House*.

#### **UAS DTU** soars high

Team **UAS-DTU** was awarded the **Gold Medal** in the *Formation Flying* category at **Drone Olympics, Aero India 2019, Bangalore**. They received prize money of Rs. 5 lakh, including a developmental kit from *Lockheed Martin*. They would further be trained for the *AlphaPilot*, an open innovation challenge in the US. They also exhibited a stall under the *R&D Department, Indian Air Force (IAF)*.



#### Rotaract Club of DTU *celebrates* Happiness

On World Happiness Day, the club members celebrated Holi with the children at *Gyankunj*, an NGO which aims at educating slum students. The club is currently participating in the **Smaller World Project**, which aims at bringing together Rotaract Clubs from various parts of the world. The members attended the **4th District Conference** organised by *Rotaract District 3011 in New Delhi.* 

#### Kalakriti conducts Workshops

Kalakriti organised Spectrang, a three-day art event under Engifest
2019. A Music Production Workshop and a Graphic Designing & Sketching
Workshop were also organised along with Minimalistic, an online graphic design competition.

#### Elixir *pays tribute* to the Martyrs

Elixir, the Health Society of DTU organised a Run for Soldiers in Aahvaan 2019 to pay tribute to the CRPF martyrs of the *Pulwama attack*. The amount of money raised from the run was donated to *BharatKeVeer.in* which is an initiative of the *Ministry of Home Affairs, Government of India.* 

#### D\_CODER attains new heights

**D\_CODER** represented India in the *New Zealand-India Waterwise Programme*. The programme was a part of the *UNESCO Global Action Programme* and was a partnership between *Otago Polytechnic* and the *Untouched World Foundation* with support from *Education New Zealand*. The team, under the mentorship of **Dr. Rahul Katarya**, along with **Nipun Aggarwal** & **Aditya Kulraj Kunwar** went to New Zealand. Seminars on *Recent Trends in Big Data Analytics* were lined up for the team and potential risks that could flood the tourist city were shown. The team presented a solution to predict flooding and earthquakes, as well as an innovative idea to provide internet in case of natural disasters. The team also came up with a new robust trash bin design to combat blockages during flooding.

In February, **D\_CODER** organised a **Virtual Treasure Hunt** under **Invictus**, where the participants were asked to decode a set of sequential clues using coding and basic aptitude skills.



#### Sahitya sweeps awards



Sahitya, the Literary Society of DTU organised Syaahi, the literary extravaganza at Engifest 2019 under which the English Debate, Hindi JAM, Poetry Slam, Creative Writing and DC/Marvel Quiz were conducted.

**Rajat Sood** received the 1<sup>st</sup> position in **Poetry Slam** at *YMCA*, *Faridabad*. **Moulshree Kumar** secured the 1<sup>st</sup> place in **Poetry Slam** at *Janki Devi Memorial College*. **Nilesh Nishant** secured the 2<sup>nd</sup> position in **Poetry Slam** at *Lady Irwin College* and *Vivekananda College*.

Mihir Rajora won the 2<sup>nd</sup> prize in Conventional Debate, *MAIT* while Shubhang Gopal secured the 3<sup>rd</sup> place at Turncoat Debate, *Keshav Mahavidyalaya*.

#### **NSS-DTU** organises Conclave

**NSS DTU** in collaboration with *NGO STRAW* organised a Workshop and Discussion Session with **Ms Vasanthi Kumar**, *Founder*, *STRAW*. It also organised an **EWS Admission Campaign** with the motive of bridging the gap between the Government's Online Portal and the people.

NSS DTU organised the 2<sup>nd</sup> edition of its Annual Conclave, Kartavya: Youth for Tomorrow. Monika Arora, advocate, Supreme Court of India, was the chief guest. A Guest Lecture Series, Abhivyakti, graced by Nitin Sood, Co-founder, HappyShappy, Sushil Meena, Founder, Nirbhed, and Katyayani Bhatia, Assistant Commissioner (UT) - IRS addressed the theme. A two-day Sanitary Napkins Donation Drive was also conducted. The other events included a Social Ideation, Case Study Challenge, ActionTalks and a Panel Discussion on the topic of menstrual hygiene.

They participated in *Conferencia De Youth'19, BITS Pilani* and achieved the **1**<sup>st</sup> position in the **Social Hackathon**. They stood **2<sup>nd</sup>** in *Educate and Empower*, wherein they taught 10-year-old students in innovative ways.

They bagged the **1**<sup>st</sup> prize in the **Case Study Competition: Women Education** at the **National Social Summit'19**, *IIT Roorkee.* 





#### Madhurima brings Laurels

Madhurima's a cappella team bagged the 1<sup>st</sup> position at Northern India Engineering College. At Gargi College, Jessjit Singh bagged the 2<sup>nd</sup> position in Western Solo and Pranshu Kukreti finished 3<sup>rd</sup> in Indian Solo while Vinayak Arora, Mahaba Ullas Ekka and Arham Anwar stood 2<sup>nd</sup> in Duets & Trios. At SGTB Khalsa College, Jessjit Singh bagged the 1<sup>st</sup> position in Western Solo, while Vinayak Arora, Mahaba Ekka and Arham Anwar finished 3<sup>rd</sup> in Duets/Trios. At CVS, the Madhurima a cappella team were 1<sup>st</sup> while Vinayak Arora secured the 1<sup>st</sup> position in Western Solo. At Deen Dayal Upadhyaya College, the a cappella team bagged the 2<sup>nd</sup> position and Vinayak Arora secured the 2<sup>nd</sup> position in Western Solo.

At Ram Lal Anand College, Ayush Garg finished 2<sup>nd</sup> in Instrumentals. Jessjit Singh bagged the 1<sup>st</sup> position at Miranda House, and Pearl Academy, and 3<sup>rd</sup> position in the Western Solo at Ramjas College. At UCMS, IPCW and Kamala Nehru College, Vinayak Arora secured the 1<sup>st</sup> position in Western Solo, while securing the 1<sup>st</sup> position in Western Duet at both Sri Venkateswara College and UCMS.

In the *Indian Solo* category, **Pranshu Kukreti** secured the **1**<sup>st</sup> position at *IIT Kharagpur* prelims, *Maharaja Agrasen College, Swami Shraddhanand College*, **2<sup>nd</sup>** at *Institute of Home Economics, Shaheed Bhagat Singh College*, and **3<sup>rd</sup>** at *Daulat Ram College*. **Kanika Mohan** performed for the premiere of *Opera Savitri* by **Gustav Holst** with artists from Finland, Poland, Russia and Holland.

#### Quizzers of Delhi-42 sweep Awards

**Delhi-42**, the Quiz Club of DTU organised its annual quiz fest **Fortitude** in February.

Ankit and Bramhdeep Singh Jakhar bagged the 1<sup>st</sup> prize at the Business Quizzes at *NSIT* and *SSCBS* and finished 2<sup>nd</sup> in Gen-Biz Quiz, *IIFT Delhi*, General Quiz, *Ram Lal Anand* and Business Quiz, *SRCC*. They stood 3<sup>rd</sup> in the Technology Quiz, *JIMS* and the General Quiz, *Ramjas College*.

Ankit and Rishi Aneja secured the 2<sup>nd</sup> position in Economics Quiz while Rishi and Anwesha finished 3<sup>rd</sup> in the Harry Potter Quiz, *Kamla Nehru College*. Kumar Shashwat stood 2<sup>nd</sup> at Sports Quiz as well as the Pop Culture Quiz, *SSCBS* while Ankit came 2<sup>nd</sup> in the Gen-Biz Quiz at *Sri Venkateswara College*.

Harshit Gupta finished 2<sup>nd</sup> at the Business Quiz, *SRCC* and Technology Quiz, *Aryabhatta College*. Aditya Kulraj, Bramhdeep, and Kumar Shashwat came 2<sup>nd</sup> at the QuizBowl while Anwesha and Jorawar Singh Dham came 2<sup>nd</sup> in the Food and Travel Quiz, *SSCBS*.

**Harshit** and **Pradhyuman** stood **1**<sup>st</sup> in the **Science Quiz**, *Ramjas College*. **Aditya** and **Bramhdeep** came **1**<sup>st</sup> while **Ankit** and **Anwesha** stood **3**<sup>rd</sup> in the **General Quiz**, *SBSC*. **Anwesha** and **Abhiroop Dey** stood **1**<sup>st</sup> in the **Pop Culture Quiz** at *Zakir Hussain College*.

Ankit and Harshit stood 1<sup>st</sup> in the Business Quiz, SGTB Khalsa College and 2<sup>nd</sup> in the General Quiz, Sri Aurobindo College. Kumar Shashwat was awarded the 2<sup>nd</sup> position in the Sports Quizzes held at St. Stephen's College and Sri Guru Gobind Singh College of Commerce while Rohan finished 2<sup>nd</sup> at the Maths Quiz, St. Stephen's College. Bramhdeep and Harshit came 1<sup>st</sup> in the Gen-Tech Quiz, IPCW. Alankrit Tomar, Harshit, and Rishi secured the 3<sup>rd</sup> position in General Quiz organised by SBI.

## **TEDXDTU**



The **4**<sup>th</sup> edition of annual TEDx University event of DTU, **TEDxDTU 2019** was organised in April, where 8 esteemed speakers imparted knowledge on the theme '*Power of Doubt*'. The event was graced by **Prof. Yogesh Singh**, *Hon'ble Vice Chancellor, DTU*.

Filmfare award nominee and Indian music producer, **Ram Sampath** was one of the speakers of the event and talked about the rich roots of the Indian musical history as he took the attendees through a journey back in time.

Other eminent speakers of the event included **Leena Kejriwal**, a social worker and avid photographer, who has been working on spreading awareness about sex trafficking; **Nikita Sharma**, a model, microbiologist and *Founder, Silver Linings*, an association that spreads cancer awareness; Vicky Roy, a ragpicker turned photographer and social worker, who uses photography to uplift the underprivileged; Aman Sanduja, Founder, TowardsBlockChain, who is focused on promoting cryptocurrencies globally; and Ashish Joshi, CEO, Classic Legends (Jawa Motorcycles). Extraordinary magician Rahul Kharbanda and Tattoographer Karan were among the speaker line-up as well.

Through their talks, the speakers spoke about various facets of the theme, such as doubt being proof of the fact that we are using our rationality, and how, while doubt may be a negative emotion, when controlled can provide the strongest motivation.

## The Shenanigans of a Patrakar

-Siddhant Patra, 4th year, CE

The best thing about the twenty-first century is that humans can back their memories up to the cloud. So, I laid back yesterday to back up my mobile phone s data as I prepared for a new journey beyond the walls of the University. In the process of doing so, I encountered many photos of myself looking away from the camera, or toward with eyes closed. Moreover, I came across the forgotten treasure of over a hundred audio recordings which encapsulated my entire journey here at DTU. All these files were candid and insightful conversations between the guests of DTU and the Patrakars of DTU, which made me take a walk down memory lane.

As a Patrakar, I, along with my teammates donned many hats, among which my favourite has been interviewing people. In January 2016, as a shy columnist, I hesitantly asked a Geologist a stock question. Instead of snubbing me off, he replied with a fascinating amount of enthusiasm. This moment inspired the introvert in me to believe that there is a way to open up to new people and converse with them. Since then, I have grabbed every opportunity that came my way to interview anyone and everyone who would interest the readers. Every interview that I took has a fond memory attached to it.

The story behind every successful interview has been about getting a lot of things right at the same time. Firstly, it always involves looking out for people who your readers would love to know more. Next comes arranging the interview and subsequently going through the profile of the interviewee. By understanding what they have been up to, questions start taking form in the mind. At the time of the interview though, I would ditch the list of questions and let our conversations bring out new ones. The Patrakar does not necessarily have to be a born conversationalist. Instead, he has to be a good listener. It is in the art of listening that perfect questions take birth. Additionally, the best interviews require the use of open-ended questions wherein the scope does not constrict the interviewee.

But every conversation does not go perfectly. Nightmares can occur for the interviewer anytime, the worst sort when the recorder app crashes midway or the horror of not starting the recording at all. On other occasions, the audio gets deleted while dealing with a meme overflow on your phone. Finally, the most unpleasant situation, where Patrakars travel to and fro between the guest house and the auditorium only to have the guest rush off without giving them as much as a faint glance.

But Patrakars never give up; each interview is a new opportunity for us. Each interview is a story waiting to be told. And so with the best interests of our readers in our mind and armed with our voice recorders, we strive to seize the day.





-Gursifath Bhasin, 4<sup>th</sup> year, IT & Raunak Kapur, 4th year, EEE

You would probably be planning what to wear for Fresher's Week and hoping that you'd get an opportunity to talk to Ms. Fresher. You would have vowed to try out each and every cafe in GTB Nagar and around. You would probably be thinking of the best ice breaker with the cutest batchmate in your class. And here I am, hunting for my farewell attire and flaunting my fully ticked bucket list.

I still remember the first day I entered the college gate, anxious and nervous, for I had no idea what college life would hold for me. Would it be the same as described by the Stifler brothers in American Pie or as described by Farhan Qureshi in 3 idiots?

It has been 3 years and 8 months to be precise and I can definitely vouch for the fact that they've been the best 3 years and 8 months of my life. On each and every bench at the OAT, behind each and every cup of Frappe at Nescafe, and in each and every classroom in my department lies a silly conversation followed by a series of laughs, and the subsequent stares of bypassers. It was only later when I realized that one needs to carry Odomos in order to peacefully enjoy Rajma Rice or Paneer Parantha prepared by Chandan Bhaiya.

I would be lying if I say that I haven't been hypnotized by seniors to pay the membership fee and join, not just one but a plethora of societies and teams. I used to think that joining them would actually make my Resume glitter. My vocabulary has grown leaps and bounds in DTU, I am now familiar with phrases like: *"Badli Badli Badli", "Calij Calij", "BT ho gayi yaar!"*. The haunted lane in DTU has only made me stronger as I am now ready to face all my fears.

College life has taught me a lot. I learned how to stir the topic in my favor during my practical Viva and mastered the art of convincing the professor of my inability to reflect my deep conceptual knowledge on the answer script, thus asking for lenient checking. This is one journey where you need to follow your heart because when this beautiful journey ends, I want you to have no regrets.

Trust me when I say this, DTU is a place like no other and I want you to make the most of it. Things might not always be the way you dreamt of them, always remember, life is all about challenges. Welcome each and every obstacle you come across, conquer it, and celebrate your victory. College has transformed me from an immature freshman into a college senior ready to face this challenging world. It is rightly said and I quote:

If you're still waiting for your 'someone special' to give away your heart, no place is better than DTU.



#### Alas, You're Gone!

- Mandeep Singh, 1st year, COE

That cherished day, when I peeked at you, Was one of the only transformative days I cried, Changed my life forever, all through.

And now, when I come across your snapshot, My throat dries,

And my eyes hide inside, recalling the memories which you blithely left behind. Yet, how contrasting, I snuffle when I find the absence of the early morning warble, of your hysteric jumps and imitating chuckle. Always feared that day, when you'd no more embrace my hand, when, you'd no longer give me a glance, with your tilted neck and jet-black eyes, with your raised foot, and the crooked smile,

the day, when you will be gone...

And now, when you no longer whistle to my homecoming, my hair bristles and my heart shrivels, longing only to hear that sweet, heart-stealing chirp, my feet feel weak, as my smile gets defeated from the reality, in the scuffle. I hope you ruffle your wings and let out the charged squeak, while looking back during the final flight And I hope you don't turn your eyes away from me.

लोकसभा चुनाव वाया गाँव

Ashend

-लोकेश नारायण, द्वितीय वर्ष, आइ.टी

3:40 AM, अरे नहीं आज इतनी देर तक जाग नहीं रहा, अभी सो कर उठा हूँ। अभी अचानक बचपन की वो बात याद आ गयी जब पिताजी बाबा को बोलकर सुबह चार बजे भोर में उठाकर अंग्रेजी के बीस अक्षर याद करने को कहते थे। तब बिहार में चारा घोटाला के चर्चे ज़ोरों पर थे लेकिन जो घोटाला मैंने बाबा के साथ मिलकर अंग्रेजी के उन शब्दों और सुबह के चार बजे की नींदों का किया, कसम से वो मज़ा उन घोटालेबाजों को पैसों का घपला करके नहीं आया होगा।

शायद पिताजी को मेरे उठ जाने का आभास हो गया था, तभी तो उन्होंने आवाज़ लगाई 'अरे उठ गए हो तो बाहर आ जाओ देखो 'रामचनर काका' आये हैं, तुम्हारा हाल पूछ रहे हैं''। 'अभी आया पिताजी', कहने के साथ-साथ आगामी लोकसभा चुनाव में कौन कहाँ से चुनाव लड़ रहा है इसके लिए मुझे तैयार होना था। वरना रामचनर काका के सामने तुम्हारी इंजीनियरिंग की डिग्री किसी काम की नहीं होगी।

'पाए लागूं काका' ।

'शहर जाकर यहाँ के संस्कार भूले नहीं तुम अच्छी बात है!' 'जी काका'। 'और बताओ,सब बढिया? क्या हाल खबर दिल्ली की?'

ख़याल आया कि काका को बता दूं कि 'काका अब आये हैं आप असली मुद्दे पर !

'सब बढ़िया काका,बस... '

'हाँ हाँ समझ गया तुम्हारा कॉलेज कोई पार्लियामेंट से कम थोड़े ही है, बहुत नखरे हैं तम लोगों के भी'।

रामचनर काका ठीक ही कह रहे हैं हमारा - कॉलेज पार्लियामेंट से कम थोड़े है - अब आप ही देखिये, आर्डिनेंस हम कब खोलते हैं? एग्जाम के तुरंत पहले, ताकि सिलेबस से अवगत हो लें बिलकुल किसी राजनीतिक पार्टी की तरह जिनको मैनिफेस्टो की याद सिर्फ चुनाव के आने पर ही आती है।

वैसे काका इक बात बताइये 'ई नेता लोग पार्लियामेंट में रेगुलर क्यों नहीं रहता? काका मुंडी झटक के बोले 'तू कौन सा रोज कॉलेज जाता है वहाँ, अभी पिछले हफ़्ते ही मैसेज आया था कि तू क्लास नहीं लगा रहा!' काका हमारी बिल्कुल सही ख़बर ले रहे थे और पिताजी बगल में बैठकर बस मुस्कुराये जा रहे थे!

हाँ, एक बात में अलग है अपना कॉलेज - यहाँ से सिर्फ चार साल में विदा लेते हैं तो वहीं लोकसभा का कार्यकाल पाँच साल का होता है पर ये अलग बात है कि कॉलेज में सप्ली और उसके बाद बैक लाकर कुछ लोग यहाँ भी इंजीनियरिंग की डिग्री को पंचवर्षीय योजना का हिस्सा बना देते हैं।

## भूत का चश्मा

- उत्कर्ष वर्मा, चतुर्थ वर्ष, ई.सी.ई

दोपहर के करीबन तीन-साढ़े तीन बजे का समय । फरवरी में ठंड कम होने लगी थी और पेड़ों के पत्ते पीले-गुलाबी हो रहे थे । जो कुछ समय पहले तक बेचैनी थी, अब वह भी नहीं रहती है - सुकून का अलग आयाम मिल चुका हो मानो । \*लोग-बाग, बच्चे, पशु-पक्षी, वह छोटी बच्ची और उसका खरगोशनुमा खिलौना जिसकी एक टांग गायब हो चुकी है, पार्क के पीछे से गुजरने वाली रेलगाड़ी, सब कुछ सामान्य रूप से गतिमान हैं ।\* चेहरे पर हमेशा मुस्कान बनी रहने के कारण सगे-संबंधी या तो उन्हें बहुत खुश मानते हैं या फिर सनकी । खुश होने की वजह उन्हें ज़्यादा नज़र तो आती नहीं है, सो ज़्यादातर लोग सनकी ही समझते हैं ।

\* कैमरे का सीन बदलता है और बेंच पर बैठे बुड्ने पर फोकस हो जाता है \*

इस वक़्त नायक अपने सबसे पसंदीदा शगल में लीन है, जो है भूत का चरमा पहनना और इतिहास को फिर से जीना। सामान्य इंसान के नज़रिये में यह कृत्य निश्चय ही निरर्थक है, बद्दिमाग है, नायक मूर्खता का जीवंत उदाहरण है और देश की जी.डी.पी. के पिछड़ा होने का एक बड़ा कारण है। लेकिन नायक ने समझ लिया है की वह इन सब भावनाओं से परे है, और चरमे के अंदर के हश्यों पर ध्यान केन्द्रित करता है। अंदर का नज़ारा बहुत मनोरम है - जिये हुये समय पर हल्की भूरी परत पड़ चुकी है और वह खुद को ही बर्ड्स-आइ व्यू में देख रहा है। हालांकि दृश्य में पाँचवी बार नौकरी के इंटरव्यू से बाहर निकाल दिये जाने के कारण नायक

बहुत परेशान है, लेकिन दर्शक के तौर पर वह मुस्कुराए जा रहा है।

\*कैमरा ज़ूम आउट होता है और पूरे पार्क को फ्रेम में लेता है जिसके एक कोने में नायक बेंच पर बैठा हुआ है\*

#### \*वॉइस ओवर शुरू होता है\*

यही तो खूबसूरती है भूत की - इतिहास की। चाहे कैसा भी परिपेक्ष्य हो, लाख दुख-तकलीफ़ें हों, हैरानी और परेशानी हो, जब आप इन्हें भूत के चश्मे से देखेंगे तो खुद को मुस्कुराने से रोक नहीं पाएंगे। यह शायद कुछ वैसा ही एहसास है, जैसा की एक बाप को अपने लड़wके की बातों को सुनते वक़्त होता है या तब जब वह उसे समस्याओं से लड़ते हुये अपरिपक्व निश्चय लेते हुये देखता है। उसकी समझ उसकी समस्याओं के अनुरूप ही छोटी है, लेकिन फिर भी वह उसके जुझारूपन को देख कर खुश होता है।

पहले जब बिजली कटती थी, तो मुसीबत लगती थी; लेकिन भूत के चश्मे से देखने पर यह मुसीबत से ज़्यादा खुशनुमा लगता है। चिट्ठी का इंतज़ार करना कभी सुखद नहीं होता था लेकिन बीता हुआ समय उस टीस को भी मीठा बना देता है। बिछड़े हुये दोस्त, या जो दोस्त ना भी रहे हों, पीछे मुड़ कर देखने पर बड़े ही भले लोग लगते हैं और उनके साथ बिताया हुआ समय स्वर्णिम लगता है।

् जार उनके साथ विद्यापा हुआ समय स्थाणन शनत

#### \*वॉइस ओवर समाप्त\*

नायक की मुस्कान कानों तक ख़िंची चली जा रही है। बत्तीसी में से चौदह दाँत बचे होने के कारण उसका चेहरा कुछ पागलों का सा दिखाई पड़ रहा है, और उसपर से हल्की हंसी उसे और भयावह रूप दे रही है। छोटी बच्ची उसे मुसकुराते हुये देख उत्सुकतावश उसके पास आकर खेल रही थी, लेकिन उसकी माँ बुड्ढे आदमी की उपस्थिति संदेहास्पद लगने के कारण कान खींच उसे दूर ले जाती है। शाम गहराती जा रही है और आसमान स्याह हो चुका है। एक चिड़िया शायद भटक जाने के कारण शोर मचा रही है। भूत का चरमा उतर चुका है, भूरी परत उतर चुकी है और

उसकी जगह आसमान वाले स्याह रंग ने ले ली है। यह वर्तमान है।



# 

#### /ˈlɪs(ə)n/

Your 10 year old self cannot contain the excitement: *It's my first drawing competition tomorrow, I will ace it,* you make a promise to yourself. Your parents bought you a new pack of poster colors which consists of 12 shades and not the usual, 6 shades pack. *The extra shade of same color will enhance my painting indefinitely,* you sleep after telling yourself this statement repeatedly.

You have looked forward to this event for weeks now. *Colors, check. Brushes, check.* Cloth and container, check. All students of your batch arrive inside the auditorium and after praying for ten minutes, the competition begins. The topic is announced and in no time, everyone starts portraying their splitsecond frame of mind on their respective sheet of paper, using one pencil, multiple colors and cosmic excitement.

Eighty minutes into the competition, you realize that your imagination is not anymore a simple thought. It has taken an elemental form, which you can no longer wait to display to the entire world. You realize, you've a good chance now.

This could potentially be one of the proudest moments of your life.

Realizing that only five minutes are left before submission, people begin to hurry. Not a good news for you, as your adjacent partner is nowhere near completion. You are caught off guard for a moment and next thing you see is water pouring all over the floor, from his jar. Water begins seeping inside your page and the picture starts becoming back to an imagination from the reality, night in front of your eyes. The chain of events are too much to process for you. You just simply sit there. Numb.

#### "Hey...Hey..."

You dejectedly turn up to see who the person tapping on your shoulder is, not realizing that it was probably his/her third attempt to reach out to you.

Attention. Now, let's snap back to reality. If the person greeting the kid is you, the current you, what will you say? How will you console the kid? What can you do, that no one else can do for you?

You can perhaps put your hand on the kid's shoulder. You can bend down a little and tell the kid, that it will be all ok. You can listen to the kid and then tell him, that it will be alright. *I am ok. I am alright.* 

#### - Amit Dogra, 4<sup>th</sup> Year, COE

The dejection, which is still somewhere instilled in your mind right now, is absolutely fresh for the kid. Yet, me, the writer of the article, hopes that if given the opportunity, you will forget about your current struggles and console the kid.

Now, if you are willing to do this for the kid, is it possible that the adult you is willing to do this for current you? Absolutely, yes.

If you are struggling now, if you are tensed now, just remember a future self of yours still remembers your current phase. Your current struggle is just becoming a chapter in your story of trounced struggles. And believe it or not, reminiscing this phase down the line will always result in a grin on your face, as you will realize how far you have arrived.

The ten year old you is still sobbing. Not the same competition anymore, not the same stakes anymore. But you have grown now. You could have been there for yourself, you can be there for yourself, and from now on, you are going to be there for yourself. You have done enough.

#### You are enough.

#### PERSONAL NOTE:

I listen to the wind, and admire the campus the same way I used to. I gaze upon the tall standing Clock Tower, sitting comfortably on a bench with my friends. And then I laugh along with the light, all that it touches being good. I have a realisation. I have some news for you.

Firstly, there is an array of thoughts you will have from time to time. Sometimes, the Metro rides aren't short enough. Sometimes, the nights aren't short enough. Think, and you got a friend within you. Overthink, and you got the whole world as your foe. Secondly, there are hundreds of people you will meet. For every 10 acquaintances, you will earn one friend. Statistics may vary, yet it entirely depends on you whether people close their eyes while remembering you, or roll them.

Finally, the Quest for 'one moment of glory' will break you hundred times first. Here for the long run? Then pick up. Pick up your shattered self and reform the mould you have become in every way possible. Again, and again and again.

The moment will arrive. Your one moment of glory will arrive.

71





In the city where the sun don't set





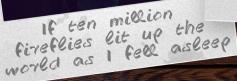
Worked so hard, forgot how to vacation



You Spin My Head Righ-Bound Right Round









But it don't mean nothing without my homies



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