

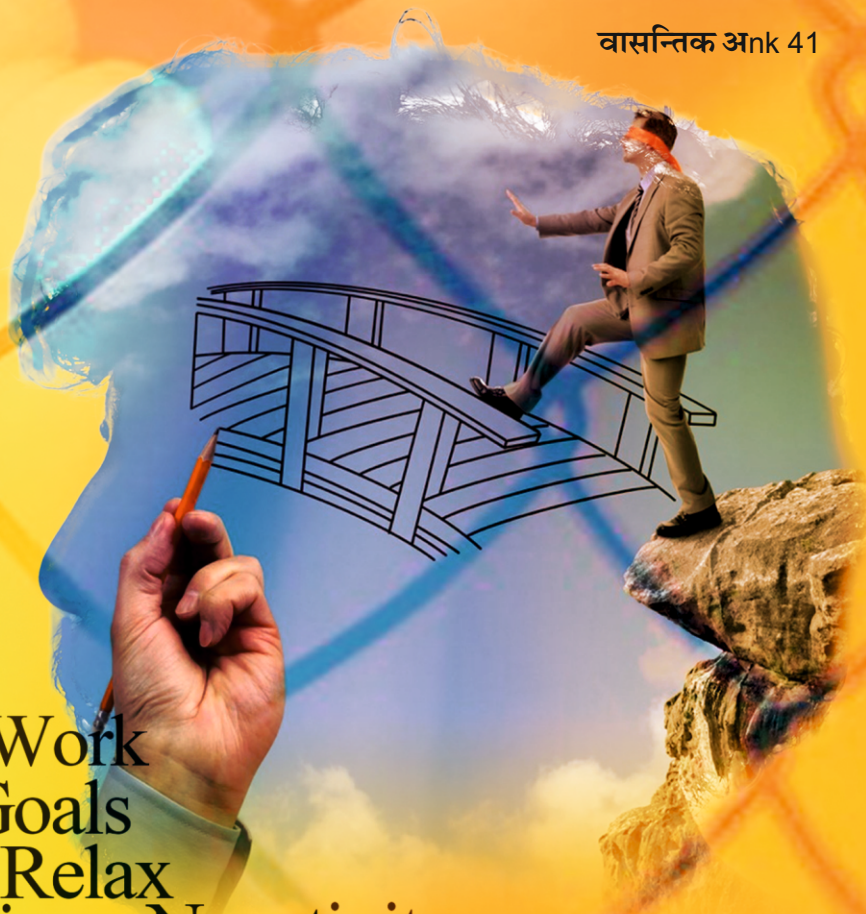


असतो मा सद्गमय

**SWAMI KESHVANAND  
INSTITUTE OF TECHNOLOGY  
MANAGEMENT AND  
GRAMOTHAN, JAIPUR**

**“ THE ONLY BARRIERS IN LIFE ARE THE ONES,  
WHICH WE CREATE IN OUR MINDS ”**

वासन्तिक अंक 41



Goals Work Relax  
Ego  
**WALLS**  
Ego Work Goals  
Relax Love & Love Relax  
Work Ego Affection Negativity  
**BRIDGES**  
Love Affection Love Negativity  
Negativity Goals Negativity Relax



# OUR MENTOR & PATH FINDER



Swami Keshvanand Ji  
(1883 - 1972)

## VISION

To promote higher learning in advanced technology and industrial research to make our country a global player.

## MISSION

To promote quality education, training and research in the field of engineering by establishing effective interface with industry and to encourage faculty to undertake industry sponsored projects for students.

Editorial	3
News Flash	4-5
Alumni Column	6
Dept. of CS & IT	7
Dept. of ME	8-11
Dept. of Pharmacy	11
Dept. of ECE	12-13
Dept. of EE	13-14
Dept. of CE	15
Dept. of MBA	16
Paper Published	17-19
CAMEO	21
Melange	22
POEMS	23
SKETCHES	24

### EDITOR-IN-CHIEF

Prof. Krishna Dayal Sharma  
(Professor, Dept. of English)

### GRAPHICS TEAM

Sudarshan Saxena  
I B.Tech. Computer Science Engineering  
Darshan Kothari  
I B.Tech. Computer Science Engineering

### CO-EDITORS

Mr. I.B. Abrol  
(Associate Professor)

Prof. Archana Saxena  
(Professor & HOD, Dept. of Chemistry)

Dr. Anupriya Singh  
(Assistant Professor, Dept. of English)

Ms. Sheeba Anjum  
(Assistant Professor, Dept. of English)

### STUDENTS EDITORS

Ishanya Keshodhan  
IV B.Tech. Computer Science Engineering

Abhinav Vijay  
III B.Tech. Computer Science Engineering

Abhinav Singh  
III B.Tech. Computer Science Engineering

Kunal Advani  
II B.Tech. Mechanical Engineering

Bhavya Saraswat  
II B.Tech. Information Technology Engineering

Deepanshi Sharma  
II B.Tech. Information Technology Engineering

### PUBLISHER

Prof. (Dr.) S.L. Surana, Director (Academics)

## SWAMI KESHVANAND INSTITUTE OF TECHNOLOGY, MANAGEMENT & GRAMOTHAN

Ramnagar, Jagatpura, Jaipur-17 (Raj.) India, Tel.: 0141-2752165, 2752167, Fax: 2759555, Website: [www.skit.ac.in](http://www.skit.ac.in), Email: [info@skit.ac.in](mailto:info@skit.ac.in)



# THE EDITOR SPEAKS



## Are walls necessary?

It is the cosmopolitan world of 21<sup>st</sup> century where we hide behind the boundaries of virtual reality, to supposedly, connect ourselves with others. Little do we realize that in time, these boundaries are growing into walls with each passing day and are isolating us, the millennials, from the 'real reality' with the world. We live in our tightly shut 'cubicles/ planets' where each person has become a 'planet unto himself' in the name of privacy. Once the walls are firmly established, it becomes very difficult to bring them down. The walls we have built around us to keep the sadness out, also keeps out the joy.

## Should the walls have some windows?

We do not work in isolation, we always need others, and we exist in the state of inter-dependency. We want relationships because this is our natural acceptance. All of us want to share, to communicate and to lead a mutually fulfilling relationship -- within ourselves and with the others.

Keeping the windows of trust, respect and love open, will provide us the 'sunlight' and 'oxygen' of harmonious relationship at all the levels of existence. They will become the bridges to connect the 'cubicles and planets' of loneliness and isolation.

## Did I add at least one brick to the bridge?

Let us ask ourselves every day: "Did I put at least one brick into the construction of the bridge? Have I helped to keep a relationship of trust, respect or love alive? Have I been generous with my time to help others through empathy, compassion? These bridges are built gradually, but they last forever, and they open up new linking roads and possibilities of a meaningful life.

The world will provide us stones every day, whether we build walls or bridges with them is up to us.

**Krishna Sharma**, Editor-in-Chief

# STUDENT EDITORIAL



Relationships tend to be one of the most indispensable treasures in one's life. However, in the current scenario, by being virtually connected to people, we have created an unknown void. We might be surrounded by a hundred people yet we end up feeling lonely. The lifestyle that we follow has also paved a way for this feeling of loneliness isolating the bonds with our loved ones. Rather than having a real, concrete relationship, we feel tempted to tread on the path of fake relationship whether in the family or work place, hence disrupting our own beliefs. Beliefs which have clashed against our understanding of each other on several biases. These walls created by our false beliefs, have led to differences between different countries, races and countries leading to fundamentalism and cold wars.

The renowned poet James Kirkup exhorted the humans not to create walls between each other in his famous poem 'No Men are Foreign':

'Remember, no men are foreign, and no countries strange'.

Still, some of us even in this chaos of distorted relationships have managed to build bridges by offering a helping hand to the fellow humans. We still believe in living in a community which intends to share and grow mutually with each other's support and compassion. The day isn't far when all of us would be re-living the days that our parents and grandparents cherished and experienced, only if we continue to branch out and not let our personal feelings hinder communication.

It ought to be our utmost priority to ensure that the coming generation rejoices all the comforting and warm feelings of relationship with people so that we can create more and more bridges elongating their network into a healthy and happy environment rather than ceasing to empathise and be connected. Let us take a step in empowering each other, be considerate towards one another and bring out the best exhilaration of our existence on Earth..

**Bhavya Saraswat**  
Student Editor



## BASANT PANCHMI CELEBRATIONS :

Homage was paid to goddess Saraswati on 10 February, 2019, at the Saraswati Temple in the SKIT campus. Director Academics, Prof. S. L. Surana along with the members of SKIT family performed the traditional 'pooja'. The temple was decorated with flowers & lights. 'Prasadam' was distributed after the prayer chanting.



## ‘KUMBH PAR CHARCHA’

To aware and enlighten the youth about Indian culture and mythology, a panel discussion on 'Kumbh Par Charcha' was jointly organised by SKIT and Dainik Bhaskar on 20 February 2019 in J. C. Bose seminar hall.

Devarshi Kalanath Shastri, renowned Sanskrit scholar, Prof. Vinod Shastri, ex Vice chancellor Sanskrit University, Prof. M.L. Bhargava, Advisor and Prof. Archana Saxena, HOD Chemistry, discussed and deliberated on –cultural, mythological, scientific and astrological dimensions and significant aspects of 'Kumbh'. Mr Dharmendra Jha, News Editor DainikBhaskar, was present as moderator. Prof. Rohit Mukherjee and Prof. Amber Srivastava welcomed the guests.

## SKIT SPIC MACAY CLUB:

### SITAR PLAY BY MR. JOSHUA FIENBERG

SPIC MACAY, the Society for the Promotion of Indian Classical Music and Culture Amongst Youth is a voluntary youth movement which promotes intangible aspects of Indian cultural heritage by promoting Indian classical music, classical dance, folk music, yoga, meditation, crafts and other aspects of Indian culture. Under the aegis of SPIC MACAY, a Sitar recital by Mr. Joshua Fienberg, was organised by SKIT SPICMACAY club on 29 January, 2019 at 1.00 pm. A traditional floral welcome was extended to the lead artist Mr. Joshua Fienberg and the accompanying guest artists by Prof. Rohit Mukherjee and Dr. Nidhi Sharma (Club coordinators). At the outset, Mr. Fienberg briefed the students about 'Hindustani' classical music and its importance. The audience was awestruck by the sitar recital and their 'jugalbandi'. The popular composition of Hazrat Amir Khusro, "damadam mast kalandar" enlivened the day.

## MEGA BLOOD DONATION CAMP

SKITIANS have always put in their endeavours for community service. In the same spirit, the 17<sup>th</sup> mega blood donation camp was organized by Red Cross Society of SKIT, for another consecutive year on 1<sup>st</sup> October, 2018. It was held in collaboration with HDFC Bank, Lions Club and Rotary Club Jaipur.

The inaugural function witnessed the gracious presence of Dr Suresh Gupta, Chairman, Neurosciences, Rukmani Birla Hospital, Jaipur and Dr Pracheesh Prakash, CEO, Rukmani Birla Hospital, Jaipur as Chief Guests and Dr Vikram Singh Chauhan, Medical Superintendent, Rukmani Birla Hospital, Jaipur, as Guests of Honor. We also received support from SMS Hospital, SDMH Hospital, Jaipuria Hospital, Mahaveer Cancer Hospital and Rungta Hospital.

The programme commenced with a welcome address by Mr. Surja Ram Meel Chairman SKIT. He welcomed the dignitaries and congratulated the donors for the noble cause. He also espoused the need of eye donation and organ donation.

Prof. (Dr.) S. L. Surana Director (Academics) lauded the efforts of the SKIT family and exhorted students and faculty members to donate more blood. Prof. S K Calla (Director, D & W) conveyed his greetings on the occasion and wished for grand success of the programme. The chief guest Dr Suresh Gupta, extended his congratulations to the donors. He explained all the myths which are associated with blood donation and added that one blood donation can save three lives. Dr Pracheesh Prakash compared blood donation to the highest donation in the world. He also expressed that the engineers and doctors are interdependent.

Shri Jaipal Meel (Director), displayed an exemplary spirit before the students by donating blood for the 15<sup>th</sup> time. Faculty and staff members also participated enthusiastically in leading the students for the noble cause. Ms Rachna Meel (Registrar) also motivated the students for donating blood. Prof. Archana Saxena was the chief coordinator of the event. The camp is organised every year in the college premises for helping the people in need. 924 units of blood were collected in the camp.

The camp concluded with honouring the guests with a shawl and memento and distribution of gifts to the blood donors.





### INTRODUCTION

It is a proud moment for us all that SKIT has been selected as a Nodal Centre for Virtual Labs by IIT Delhi. On this occasion, an introductory workshop on Virtual Labs by IIT Delhi, supported by MHRD Govt. of India, was held from 15.02.2019 to 16.02.2019 for B. Tech. II, IV and VI semester students and faculty members from various streams (CS/IT, EC, EE, ME and first year).

### WORKSHOP DELIVERY

The workshop commenced with a welcome speech by Mr. Ajay Kumar Dhanopia - Nodal Coordinator, Virtual Labs SKIT Jaipur. Subsequently two executives from Virtual Labs IIT Delhi, Mr. Prateek Sharma and Mr. Ashish Ranjan were welcomed by Prof. S.L. Surana (Director Academics) and Prof. Ramesh Kumar Pachar (Principal).

Prof. Surana emphasized the importance and utility of virtual labs in the current academic scenario. He motivated the students to conduct experiments which can help them in learning basic and advanced concepts of theoretical postulates through remote experimentation.

A letter of understanding was also handed over by the delegates from IIT Delhi to Prof. S. L. Surana and Prof. Ramesh Kumar Pachar.



### THE MAJOR POINTS COVERED DURING THIS WORKSHOP WERE:

1. Motivation & importance of laboratories
2. The basic idea of online learning platform
3. Objectives of the Virtual Labs
4. Types of Virtual Labs
5. Intended users
6. Participating Institutes
7. Scope of Virtual Labs
8. Practical demonstration of configuration of Virtual Lab Website [www.vlabs.co.in](http://www.vlabs.co.in)
9. Demonstration of stream-wise laboratory experiments
10. Best practices & social impact of this project

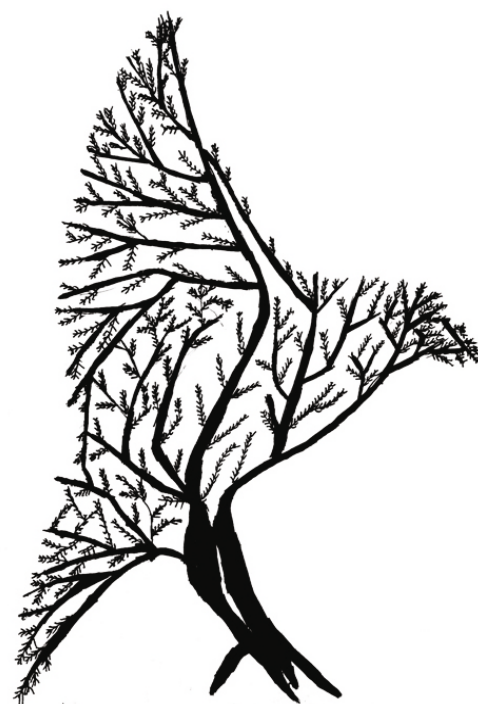
More than 60 faculty members and 1000 students from various departments and streams attended the workshop.

### WORKSHOP OUTCOMES:

1. To provide remote-access to labs in various disciplines of science and engineering. These virtual labs would facilitate undergraduate and post graduate students' as well as research scholar's level.
2. To enthuse students in conducting experiments and arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
3. To provide a complete learning management system around the virtual labs where the students can use the various tools for learning like-- additional web-resources, video-lectures, animated demonstrations and self-evaluation.
4. To share costly equipment and resources, which are otherwise available to limited number of users due to constraints of time and geographical locations.

### WORKSHOP FEEDBACK:

Although no formal feedback was taken, informal feedback did show that participants felt pleased to avail information regarding online learning facilities. They appreciated the fact that theoretical concepts learnt in classrooms can be verified and tested practically by using virtual labs. Moreover, they were also fascinated by the fact that with very limited resources and negligible investment, they can increase their basic & advanced practical skills from remote locations also without actually visiting a laboratory and help them to study even at odd hours.



Vijeta Khicha, (Assistant Professor- CS)





When I was asked to write my experiences with my Alma matter, an introspection started. I have so much to share from that schmaltz bunch of memories. Starting from a bit about me and my stature- I am a "SKITian" of 2010-14 batch from Electronics and Communication branch. After completing my graduation, I worked in some startups, then completed my masters from IIT-Delhi in Opto-electronics and Optical communication. In IIT, I spent some time to explore areas like Radio over Fiber (RoF millimeter wave networks) & PON, but my interest in core electronics remained intact. Simultaneously, I completed some courses like "Circuit and Electronics: by Anant Agarwal (Prof. MIT University)", "The Principle of Semiconductor Devices by Mansun Chan (Chair Prof. The Hong Kong University)", "CS50 by David J Malan (Prof. Harvard University)" etc. Currently I am working in Qualcomm, which is one of the world's largest semi-conductor firm. Here I work on implementation of IEEE standard 802.11. That's all about me, now let's discuss my experiences with SKIT.

A technical graduation institute is one's first interaction with professional world that transforms his personality from a student to a professional. It provides the podium where one can explore the most advanced technologies and can challenge oneself to delve deeper into the areas as per one's interest. This is exactly how I felt during my college days. In SKIT, I not only received a quality education of my stream but also got an exposure to the latest technologies in the field. I would also like to use this opportunity to appreciate the hard work of all the professors and management team for providing an excellent learning environment.

I still remember those classes and labs, which were the fundamental bricks of technical knowledge on which I built my career. Those classes are the key reason of my undying interest in EC. Coming to management part, in SKIT we learnt to be disciplined. At that time I didn't understand the importance of discipline, some of us even found it atrocious, but when we start our professional career, we slowly begin to understand how useful discipline is in our life!

One can never learn swimming until one jumps into water, the same applies in domain of technical knowledge also. In SKIT, we got world-class laboratories, which accelerated our learning process. I still remember the feeling of contentment I used to experience after a successful implementation of any lab project. For this, I extend my sincere regards to the professors, lab teachers and the supporting staff, who boosted our confidence and prepared us to work in accordance with industrial canons.

Apart from studies, various clubs also helped a lot in shaping our overall personality. Clubs like 'Toastmasters Club and Entrepreneur Cell' inculcate confidence for holding any kind of discussion, because there we learn to communicate and present ourselves in an impressive effective manner, i.e. to become prominent proponents.

A true SKITian can never forget the fun he/she enjoyed in the annual techno-cultural event "Pravah". It helps to develop our organizing and management skills. SKIT also maintains very high standards in the field of games. I enjoyed and learned many games like cricket, volleyball, basketball etc. in SKIT. This helps in all dimensional development of an individual.

In the end, I just want to convey my thanks and regards to complete SKIT family for all the guidance, skills development and support it has provided. I would also like to wish good luck to all upcoming batches—keep your "Josh" high. Remember the words of Shri Swami Vivekananda- "*Arise, awake and do not stop until the goal is reached*". **Thanks a lot!**

**Parth Saxena**

Sr. Engineer Qualcomm: Wireless Technology & Innovation, Bangalore



Mahatma Gandhi once said, "You must be the change you wish to see in the world." After a brief conversation with Mr Suresh Choudhary, who is an Asst. Professor in Department of Mechanical Engineering of Swami Keshvanand Institute of Technology, Management & Gramothan, I came to know about a very unique perspective he has towards his own life and how he strives every day to bring the change in his students and people that surround him. A firm believer in Gandhian philosophy, Mr Choudhary is an academician by profession and believes that the primary responsibility of every human being should be service of the nation. He says one can serve the nation in any field or any way one likes. He believes that he can serve the nation in the best possible way by contributing in the field of education. Let's take a look at the way he brilliantly answered the questions that we had in store for him. Mr Choudhary also voluntarily offers his services to an NGO, where he teaches and guides the poor students of slum areas.

**Q: Even after achieving so much in your life, you keep working every day and you keep pushing your limits. This inspires every student of mechanical department. What drives you to do so?**

A: There is a famous saying of Mahatma Gandhi that I once read, "Learn as if you were to live forever", and that's what I practise in my life. I always tell the students that achievements don't matter in life but learning does. The process of learning, that makes one a good human, is the most important thing in life.

**Q: In every person's life comes a phase when one feels directionless. Have you ever experienced it in your life? How did you recover from it?**

A: Talking about my life, well, it has been directionless right from the beginning. There was no one to guide me about what to do in life and how to do it. I didn't know what to do after graduating. I never even appeared for any competitive examinations be it RPET, IIT-JEE or AIEEE. I simply took admission in an engineering college. I even approached SKIT to get admission but was did not succeed because I hadn't appeared for RPET. So I somehow ended up in Gyanvihar College. Those four years of engineering education gave me a new direction and opened up a new dimension for me. I learnt about the objective of my life, which I think is very important. In my 3rd year my teacher, Professor Rajkumar advised me to prepare for Indian Engineering Services and that was the first time I heard about such an examination. I was just an average student in school, but my teachers in college encouraged me and motivated me to be something more and rise above the rest. Since then, I have never looked back. I understand it very well that in every person's life there comes a phase where he/she feels directionless and it is absolutely fine. At that time the thing that matters most is a support and motivation that comes from an external source. It may come from anyone, be it your family, friend or teacher. In my case, I had my teachers always by my side, supporting me and constantly motivating me throughout my college life.

**Q: At the time of roll call, students usually say "Present Sir", but a year ago you started asking students to say - "Jai Hind" instead. What is the reason behind that?**

A: That's a good question you've posed. We have observed citizens brimming with energy and a feeling of patriotism only on two occasions, on Independence Day and Republic Day, or when some event harm/ challenge our national integrity (referring to the recent Pulwama attack). I want that this feeling of patriotism and enormous energy should be maintained consistently and that's why I started asking students to say "Jai Hind" instead of "Present Sir" during roll call. I know it is a small beginning, but at least it is a beginning and I have full faith in my students that they will keep their spirit of nationalism high for the rest of their lives.

**Kunal Advani in a conversation with Mr. Suresh Choudhary**





## **INTERNATIONAL CONFERENCE ORGANIZED:**

The Department of Computer Science & Information Technology organised an International Conference on 'Emerging Technology in Computer Engineering' on 1 & 2 February, 2019. The conference included panel discussions and sessions. It provided a platform for the participants to share their views with peers and experts from various parts of the country. The conference was attended by more than 100 participants and a total of 60 technical papers were presented on various topics related to emerging technology in computer engineering.

The inaugural ceremony began with a welcome speech by Mr. Jaipal Meel, Director SKIT. Prof. S.L.Surana, Director (Academics), threw light on the theme of the conference. The workshop fielded eminent speakers. The Chief Guest for the conference was Mr Subir Kumar (Managing Director Jaipur Metro Rail Corporation Limited). The keynote speaker in the inaugural session was Prof. Seerama Ramakrishna (Vice President Research Strategy NUS, Singapore)/. A brief introductory speech about the themes of the day was delivered by Mr. Ripudaman Magon (Managing Director, Natural's Group). The Guests of Honor Mr. Manish Sharma (Technology Architect, Infosys Limited), and Mr. Lawrence Mohan Raj (Leader Student Developer, IBM India Private Limited) motivated the participants.

Prof. C.M. Chaudhary (Convener, ICETCE) presented a summary report of the conference. The Guest of Honour, along with other faculty members of the department, distributed prizes and certificates for paper presentation and poster making competition. A vote of thanks was given by Mrs. Anjana Sangwan (Secretary, ICETCE). Prof. C.M Choudhary and Prof. Anil Chaudhary were the conveners of the conference.

## **WORKSHOPS ORGANISED:**

1. The Department of Computer Science & Information Technology conducted a two day workshop sponsored by IBM Developer Ecosystem on "Build a Handwritten Digit Recognizer using Watson Studio & PyTorch", from 31 January & 1 February 2019. The objective of the workshop was to build and train AI & machine learning models, prepare and analyze data in a flexible, hybrid cloud environment. The students created a new IBM Cloud account where they created handwritten digit recognizer and deployed a Chat Bot on Cloud for Mobile Applications under the guidance of Miss Riya M Roy and Mr. Lawrence Mohanraj. The event was coordinated by Ms. Anjana Sangwan, Mr. M.K. Beniwal, Mr. Pankaj Dadheech and Ms. Priyanka.

2. The Department of Computer Science & Information Technology organized a two day workshop sponsored by the Department of Science and Technology, Government of Rajasthan, on "Micro Services and their Application in Analytics and Cloud" on February 2 & 3, 2019. The objective of this workshop was to provide training in the said field. In all 80 students and 5 faculty members from the department participated in the programme.

## **INDUSTRIAL TOURS ORGANIZED:**

The students of III year Computer Science & IT went on industrial tours to various industries in the months of December 2018 and January 2019. The tours were efficiently coordinated by Mr. M.K. Beniwal & Dr. Mukesh Gupta along with other faculty members of the department.

## **HACKATHON-2019 AT SKIT**

The Department of Computer Science & Information Technology, in association with Rajasthan Technical University, Kota successfully conducted a 36-hour non-stop coding competition Hackathon - 2019 on February 02 & 03, 2019. It was sponsored by TEQIP-III, a Govt. initiative project for Technical Education Quality Improvement. Dr. Mukesh Gupta was the convener of this two days event. More than 600 students from different government & private engineering colleges from all over Rajasthan and experts from various domains also participated. Technical partners in this event were Paytm, Zebrionics, Capgemini, Teligenz, NIIT Tech, Metacube, Naturals etc.

## **FDP/ Workshop Attended**

• **TITLE :** Research Paper Writing Tools and Techniques

**DATE:** 13 September to 15 September 2019

**VENUE:** Compucom Institute of Technology & Management, Sitapura, Jaipur

**ATTENDED BY:** Naveen Jain, Pankaj Dadheech

• **TITLE :** (FDP) – 'Business 4.0 and Agile Technologies' conducted by Tata Consultancy Services (TCS)

**DATE:** 17 December 2018

**VENUE:** Arya College of Engineering and I.T

**ATTENDED BY:** Dr. Rajat Goel, Ms. Aakriti Singhal, Mr. Naveen Jain and Ms. Garima Gupta.

• **TITLE:** Experiential & Project Based Learning (PjBL) in Engineering Education (Master Class)

**DATE:** 11 February 2019 to 12 February 2019

**VENUE:** J K Lakshmipat University, Jaipur

**ATTENDED BY:** Dr. Archana Saxena Dr. Shubhra Saxena, Priyanka Bhard

## **Ph.D. AWARDED**

**THESIS TOPIC:** Analysis of 3 Tier Optimization Approaches of Feature Extraction for Facial Gesture Recognition

**Ph. D AWARDED TO :** Ms. Neha Janu

**GUIDED BY :** Dr. Pratisha Mathur

**FROM :** Banasthal Vidyapith, Rajasthan

**YEAR :** September. 2018.



# Department of Mechanical Engineering

## ORGANISED PRE GATE TEST-2019 :

The department of Mechanical Engineering conducted the **Pre-GATE Test-2019** for the final and pre-final year students of Mechanical Engineering. Three tests, each of 3 hours duration, were conducted. Two tests were conducted online on 27-10-2018 & 23-01-2019 by the department, and one test was conducted offline by an external agency on 09-01-2019. The tests were coordinated by Mr. Chandan Kumar, (Assistant professor) under the supervision of Dr. N.C. Bhandari, HOD (ME). Mr. Ajay Dhanopia and Mr. Suresh Choudhary also helped in the smooth conduction of the programme.



## GUEST LECTURE ON “ADVANCES IN MATERIAL SCIENCES – MATERIAL CHARACTERIZATION” :

A guest lecture on “Advances in Material Sciences– Material Characterization” was organized in the department of Mechanical Engineering on 6 February, 2019. Dr. Meghanshu Vashishta, (Associate Professor, Department of Mechanical Engineering IIT BHU) Delivered a talk on recent techniques in identifying residual stresses in materials and material characterization. The program began with a formal welcome of Dr. Meghanshu Vashishta followed by lectures and discussions with the students and faculty members. Dr. Meghanshu Vashishta focused on the research opportunities in the field of material characterization, especially determination of residual stresses in steels by Bauschinger Noise Analysis. The program ended with a vote of thanks and memento presentation by the HoD.



## ASME STUDENT SECTION SKIT WON FIRST PRIZE IN IAM3D ASIA PACIFIC 2019 :

A team of four students from ASME Student Section of SKIT, won the first prize in the reputed IAM3D competition under ASME E-Fest Asia Pacific 2019, held at VIT Vellore. The ASME Innovative Additive Manufacturing 3D (IAM3D) Challenge is a part of ASME's Global e-Fests (Engineering Festivals). It is designed to give an opportunity, to all multi-disciplinary undergraduates around the world, to re-engineer existing products and create new designs. Prashant Agarwal, Jayesh Malviya, Lavish Jain and Lakshay Khandelwal, (all from VI semester mechanical engineering) participated in the competition. The team designed, manufactured and tested a hovercraft using 3-D printing for natural disasters.



25 teams from IITs, NITs, Hongkong Polytechnic and other reputed institutes from Asia Pacific participated in the competition. Entire project was conducted under the supervision of Mr. Arun Beniwal, Mr. Manoj Kumar Sain and guidance of Dr. N. K. Banthiya (Advisor, ASME Student Section).



## A REPORT ON POSTER EXHIBITION ON RENEWABLE ENERGY RESOURCES AND TECHNIQUES ORGANISED BY RENEWABLE ENERGY CLUB :

Renewable Energy Club organized a poster exhibition on Renewable Energy Resources and Techniques, at Renewable Energy Lab, in the department of Mechanical Engineering, on 13 February, 2019. 56 students participated in the exhibition and 22 posters were displayed and presented by the students.



## A REPORT ON IIT BOMBAY TECHFEST “TECHNORION” 2018 ORGANIZED BY THE ASME STUDENT SECTION AND THE ROBOTICS CLUB SKIT :

A zonal competition of IIT Bombay TechFest 2018 “Technorion” was organized on September 30 2018, by the ASME & ROBOTICS CLUB SKIT at Swami Keshvanand Institute of Technology, Management & Gramothan. Many college and school students of North India participate and enthusiastically in the event.

Faculty coordinator Mr. Praveen Saraswat, welcomed the delegates of TechFest IIT Bombay in the inaugural ceremony at J.C. Bose Seminar Hall. One of the delegates gave an overview of the events. Later, the competitions Cozmo Clench, Meshmerize and Codecode were held in the badminton court (Civil Block), Soft Skills Cell (Civil Block) and in various rooms of Mechanical block respectively. 320 participants took part in the competitions.

Finally, the results were declared and prizes were distributed by Prof. S.L. Surana (Director, Academics), Prof. N.K. Bhantiya (Head, PAQIC) and Dr. N.C. Bhandari (Head, Mechanical Department) at J.C. Bose Seminar Hall. The event concluded with a vote of thanks by the student coordinator.

## PARTICIPATION OF SAE INDIA SKIT COLLEGIATE CLUB, IN BAJA SAE INDIA, INDORE, 2019 AND ENDURO STUDENT INDIA, PUNE, 2019 :

Team Xcelerators, under the aegis of SAE INDIA SKIT Collegiate Club, participated in two national level events -- BAJA SAE INDIA 2019, held at Pithampur, Indore (Madhya Pradesh) from 22 January to 27 January, 2019 and Enduro Student India 2019, held at Talegaon, Pune (Maharashtra) from 14 February to 19 February, 2019.

The teams had to bring self-designed and fabricated 'All-Terrain Vehicles' in these competitions. The competitions continued for 6 days and included technical scrutiny check, design evaluation, cost presentation, dynamic events and a final endurance run.

A total of 150 teams participated in both the events. The SAE INDIA SKIT team successfully built the vehicle which proved very durable in the dynamic events. The vehicle stood out amongst the best teams of the country in terms of performance. The team also showcased strong preparation in various static events like design evaluation, cost presentation and business event.

The club works under the guidance of Dr. Ashish Nayyar, Mr. Yogesh Sharma and Mr. Saurabh Gupta.

## Robotics Club Achievements 2018-19

S.No.	Team Member	Branch	Date	Place	Event	Position
1.	Chirag Jain	CS 1 <sup>ST</sup> YEAR	15 Oct. 18	GIT, Jaipur	JIGYASA, Line Follower	I
1.	Mohit Agarwal	CS 1 <sup>ST</sup> YEAR				
1.	Nitin Chittoria	EC 1 <sup>ST</sup> YEAR				
1.	Bhavya Bhatnagar	EC 1 <sup>ST</sup> YEAR				
2.	Shubham Menroy	CS 1 <sup>ST</sup> YEAR	15 Oct. 18	GIT, Jaipur	JIGYASA, Line Follower II	II
3.	Arushi Arora	CS 1 <sup>ST</sup> YEAR	15 Oct. 18	GIT, Jaipur	JIGYASA, Robo Race II	
3.	Ishita Vaid	CE 1 <sup>ST</sup> YEAR				
3.	Chirag Bohra	CS 1 <sup>ST</sup> YEAR				
3.	Ashik Sain	CS 1 <sup>ST</sup> YEAR				
4.	Anirudh Yogi	ME 3 <sup>RD</sup> YEAR	19 Jan. 19	LNMIIT, Jaipur	PLINTH, Pick and Place	II
4.	Veerendra Singh	EC 3 <sup>RD</sup> YEAR				
5.	Deepak Kumar	ME 2 <sup>ND</sup> YEAR	25 Jan. 19	SKIT, Jaipur	COGNIZANCE IIT, ROORKEE	I
5.	Brij Bhushan	EC 2 <sup>ND</sup> YEAR			Pick and Place	
5.	Varnit Kashyap	EE 2 <sup>ND</sup> YEAR				
5.	Harsh Nandawana	ME 2 <sup>ND</sup> YEAR				
5.	Arpit Chechani	ME 2 <sup>ND</sup> YEAR				
5.	Sahil Yadav	EE 2 <sup>ND</sup> YEAR				
6.	Mohit Agarwal	CS 1 <sup>ST</sup> YEAR	27 Jan. 19	JKLU, Jaipur	TECHNOCRUSE IIT, KANPUR	I
6.	Gopal Gupta	EC 3 <sup>RD</sup> YEAR			Line Follower	
6.	Nitin Chittoria	EC 1 <sup>ST</sup> YEAR				
6.	Bhavya Bhatnagar	EC 1 <sup>ST</sup> YEAR				
7.	Harsh Nandawana	ME 2 <sup>ND</sup> YEAR	27 Jan. 19	JKLU, Jaipur	TECHNOCRUSE IIT, KANPUR	II
7.	Arpit Chechani	ME 2 <sup>ND</sup> YEAR			Pick and Place	
7.	Varnit Kashyap	EE 2 <sup>ND</sup> YEAR				
7.	Deepak Kumar	ME 2 <sup>ND</sup> YEAR				
7.	Brij Bhushan	EC 2 <sup>ND</sup> YEAR				
7.	Sahil Yadav	EE 2 <sup>ND</sup> YEAR				

## PAPERS PRESENTED IN CONFERENCES

<b>TOPIC</b>	:	Evaluation of Combustion Characteristics of Diethyl Ether–Nitromethane–Diesel Blends in CI Engine
<b>AUTHORS</b>	:	Chandan Kumar, Kunj Bihari Rana, Brajesh Tripathi, Ashish Nayyar
<b>CONFERENCE</b>	:	International Conference on Sustainable Energy and Environmental Challenges (3rd SEEC), IIT Roorkee, India, December 18 to 21, 2018
<b>TOPIC</b>	:	Applications of Nano-cutting Fluids for Sustainable Metal Machining Processes
<b>AUTHORS</b>	:	Vinay Singh Marwal
<b>CONFERENCE</b>	:	International Conference on Trends & Innovation in Product Development and Manufacturing in Mechanical Engineering, Kautilya Institute of Technology & Engineering, Jaipur, September 21, 2018
<b>TOPIC</b>	:	Solving an Intractable Stochastic Partial Back ordering Inventory Problem using Machine Learning
<b>AUTHORS</b>	:	Nidhi Srivastav, Achin Srivastav
<b>CONFERENCE</b>	:	International Conference on Emerging Technologies in Computer Engineering (ICETCE 2019), Swami Keshvan and Institute of Technology, Jaipur, 1 to 2 Feb, 2019

## PAPERS PRESENTED IN CONFERENCES

<b>TOPIC</b>	:	An Introduction to the Design of Foldable E-Bike for Clean & Safe Travelling
<b>AUTHORS</b>	:	Ajay Kumar Dhanopia
<b>CONFERENCE</b>	:	National Conference on Sustainable Development (SDSC-2019), Swami Keshvanand Institute of Technology, Jaipur, February 18 to 19, 2019
<b>TOPIC</b>	:	Water and Land use Management: A Review for Sustainability Aspect
<b>AUTHORS</b>	:	Madhukar Kumar
<b>CONFERENCE</b>	:	National Conference on Sustainable Development (SDSC-2019), Swami Keshvanand Institute of Technology, Jaipur, February 18 to 19, 2019

## BOOK PUBLISHED

<b>TOPIC</b>	:	Optimization of Cutting Parameters of Drilling Using RSM and MOGA
<b>AUTHORS</b>	:	Sudesh Garg
<b>BOOK</b>	:	Lambert Academic Publishing, ISBN No.978-613-9-98156-4, Dec, 2018

## PATENT FILED

<b>TOPIC</b>	:	Gravity-driven Illumination Apparatus
<b>FACULTY</b>	:	Dheeraj Joshi, Praveen Saraswat, Mayank Aggarwal, Lakshya Yadav, Keshav Mundra
<b>PATENT DATE</b>	:	Patent filed, 12 Sep, 2018, (Reference No.201811034486)

## WORKSHOP ATTENDED

<b>TITLE/TOPIC</b>	:	Virtual Labs
<b>ATTENDED BY</b>	:	Ajay Kumar Dhanopia
<b>ORGANISED BY</b>	:	Indian Institute of Technology Delhi, India supported by MHRD Govt. of India at Swami Keshvanand Institute of Technology, Jaipur, February 15 to 16, 2019
<b>TITLE/TOPIC</b>	:	Capacity Building Program on Energy Simulation using EMIS BEP Tools for Implementing Energy Conversation Building Code in Rajasthan
<b>ATTENDED BY</b>	:	Madhukar Kumar
<b>ORGANISED BY</b>	:	Rajasthan Renewable Energy Corporation Limited, 20 to 21 Dec, 2018

## FACULTY DEVELOPMENT PROGRAM (FDP) ATTENDED

<b>TITLE</b>	:	AICTE-ISHRAE Rfresher Course on Refrigeration and Air Conditioning (1 Week)
<b>ATTENDED BY</b>	:	Ashish Nayyar
<b>ORGANISED BY</b>	:	Chitkara University, Punjab, 17 to 21, Dec, 2018
<b>TITLE</b>	:	TEQIP- III sponsored Short Term Course on Data Analytics for Engineers
<b>ATTENDED BY</b>	:	Praveen Saraswat
<b>ORGANISED BY</b>	:	Malaviya National Institute of Technology, Jaipur, 10 to 14 December, 2018



**TITLE :** Creo Software  
**ATTENDED BY :** Arun Beniwal, Sanjay Bairwa, Chandra Mohan Kumar  
**ORGANISED BY :** CAD DESK, Jaipur, 24 to 28 Dec, 2018

**TITLE :** NPTEL AICTE - Management of Inventory Systems (One and half week)  
**ATTENDED BY :** Achin Srivastav  
**ORGANISED BY :** IIT Kharagpur, Aug to Oct, 2018

## **NPTEL COURSES COMPLETED BY FACULTY**

**COURSE/TOPIC :** Fundamentals of Machining Processes  
**COMPLETED BY :** Vinay Singh Marwal (Top 1% of Certified Candidates, AIR-5, Gold)  
**ORGANISED BY :** IITRoorkee, July - Oct, 2018

**COURSE/TOPIC :** Management of Inventory Systems  
**COMPLETED BY :** Achin Srivastav (Topper, AIR-2, Elite)  
**ORGANISED BY :** IIT Kharagpur, Aug-Oct, 2018

**COURSE/TOPIC :** Design for Quality, Manufacturing and Assembly  
**COMPLETED BY :** Achin Srivastav (Top 5% of Certified Candidates, AIR-15, Elite)  
**ORGANISED BY :** IIT Madras, Aug-Sep, 2018

**COURSE/TOPIC :** Robotics  
**COMPLETED BY :** Sunil Kumar (Elite)  
**ORGANISED BY :** IIT Kharagpur, Aug-Sep, 2018

**COURSE/TOPIC :** Refrigeration and Air-Conditioning  
**COMPLETED BY :** Manoj Kumar (Elite)  
**ORGANISED BY :** IIT Roorkee, Aug-Sep, 2018

## **Ph.D. AWARDED**

**THESIS TITLE :** Agent Based Production Scheduling in Job Shop Manufacturing System  
**Ph.D. AWARDED TO:** Mr. Om Ji Shukla  
**GUIDED BY :** Dr. Gunjan Soni and Prof. Rajesh Kumar  
**INSTITUTE :** Malaviya National Institute of Technology (MNIT) Jaipur  
**YEAR :** December, 2018

# Institute of Pharmacy

## **SEMINAR ON BASIC LIFE SUPPORT:**

A seminar on Basic Life Support was organised at SKIP Jaipur in association with Santokba Durlabhji Memorial Hospital, Jaipur on January 11, 2019. The Chief Guests of the seminar were Mr Yogendra Durlabhji, Dr. Nikhil Ajmera and Dr. Sanjana Bhojwani. Dr. Ajmera gave a theoretical and practical demonstration for providing emergency first aid to the patient in case of sudden cardiac or respiratory attack. The students were benefitted by such useful demonstration and guidance. Prof. HemlataDullar, Principal SKIP, and all the staff members were also present on the occasion.



Darshan Kothari CS I Year

## FDP ORGANIZED :

**AOC 2019:-**A Faculty Development Programme (FDP) on "Advances in Optical Communication (AOC-2019)" was jointly organized by EICT Academy, MNIT Jaipur and Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur from 9 February to 14 February, 2019.

The FDP was inaugurated by Dr. S. N. Sharan, Director, School of Electrical and Electronics Engineering, Manipal University, Jaipur and Dr. Suchandan Pal, Principal Scientist, CEERI Pilani. Shri Jaipal Meel (Director), Prof S. L. Surana (Director Academics), Prof S. K. Bhatnagar (HOD), Prof. Mukesh Arora and Prof. Ghanshyam Singh (MNIT) were present at the inauguration ceremony.

In the first session of day one, Dr Suchandan Paldelivered an expert talk on Fundamental Integrated Optic Devices and Components. In the second and third session, Dr. Manish Mathew, CEERI, Pilani shared his knowledge on the III-Nitride Devices, their fabrication and applications.

In the first session of day two, Dr. Yogita Kalra, Associate Professor, Delhi Technological University, New Delhi enlightened the participants on photonics crystals and their applications. Lab sessions on antenna designing, were taken by Dr. Monika Mathur. Day three started with an expert lecture of Dr. Manish Tiwari, Professor, Manipal University, Jaipur on the Optical Properties of Photonic Crystal Fiber. The next session was addressed by Prof. R S Meena, RTU Kota, who spoke on Meta-materials and its scope in 5G Antenna. A lab session on FDTD and problem solving was taken by Dr. Rukhsar Zafar, SKIT Jaipur.

The opening session of day four was notable for the lecture of Dr. Y. K. Vijay, President VGU Jaipur, who introduced the topic Light for Life with experimental demonstration. Afterwards Prof. V Sinha, Emeritus Professor, MNIT Jaipur threw light on some comparative aspects of fiber and wireless communication. The expert lecture was followed by an enriching lab session of Mr. Amandeep Singh and Mr. Varun Pandey who laid the seeds of Opti system. The student chapter of OSA at SKIT Jaipur was also inaugurated by Prof V. Sinha.

The fifth day was momentous due to the two expert lectures of Prof. Ananjan Basu, Head-CARE, IIT Delhi, who emphasized the areas of Novel Antenna Technologies. The expert lectures were followed by a lab session of Mr. Manoj Faisalwal, Govt Engineering College Ajmer, on Lumerical Software. The last day started with a lab session on Opti FDTD by Dr. Vinay Kanungo, SKIT Jaipur. This was followed by an expert talk of Dr. Ravi Kumar, MNIT Jaipur, who gave a detailed description of Visible Light Communication systems. Dr. Monika Mathur proposed a vote of thanks in the valedictory session.

## NPTEL COURSES COMPLETED:

NAME : Dr. Swati Arora  
TOPIC/SUBJECT : Digital Circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Ankit Agarwal  
TOPIC/SUBJECT: Digital Circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Ankit Agarwal  
TOPIC/SUBJECT : Digital Image Processing  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Pallav Rawal  
TOPIC/SUBJECT : Introduction to Internet of Things  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Abhinandan Jain  
TOPIC/SUBJECT : Digital Circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Neeraj Jain  
TOPIC/SUBJECT : Digital Circuits  
DURATION: 12 weeks online certification course (ELITE certified), July-October, 2018

NAME : Dr. Monika Mathur  
TOPIC/SUBJECT : Digital Circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Dr. Praveen Kumar Jain  
TOPIC/SUBJECT : Fabrication  
Techniques for MEMS based sensors: Clinical Perspective  
DURATION : 12 weeks online certification course, July-October, 2018

NAME : Harshal Nigam  
TOPIC/SUBJECT: Microwave Theory and Techniques  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Urvashi Prakash Shukla  
TOPIC/SUBJECT : Digital circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018

NAME : Kiran Rathi  
TOPIC/SUBJECT : Digital circuits  
DURATION : 12 weeks online certification course, July-October, 2018

NAME : Pooja Choudhary  
TOPIC/SUBJECT : Fabrication  
Techniques for MEMS based sensors: Clinical Perspective  
DURATION : 12 weeks online certification course, July-October, 2018

NAME : Vikas Pathak  
TOPIC/SUBJECT : Switching Circuits and Logic Design  
DURATION : 12 weeks online certification course (ELITE certified), July-October, 2018

NAME : Vikas Pathak  
TOPIC/SUBJECT : Digital Circuits  
DURATION : 12 weeks online  
certification course (ELITE certified), July-October, 2018



## OSA STUDENT CHAPTER:

Optical Society of America (OSA) Student Chapter was inaugurated for the students of SKIT on 12 February 2019. The faculty mentors are Dr. Monika Mathur (ECE), Dr. Rukhsar Zafar (ECE) and Dr. Vinay Kanungo (CS).

## ACADEMIC ACCOMPLISHMENTS : (STUDENTS) M.TECH DISSERTATIONS COMPLETED

STUDENT NAME	: Shivani Sharma
TITLE	: Investigations of Plasmonics Based Optical Logic Gates Using Metallic Ring Loaded Circular Disc
SUPERVISOR	: Dr. Rukhsar Zafar
STUDENT NAME	: Joytsana Sharma
TITLE	: Design And Analysis of a Triple Material Double Gate (TMDG) Strained Channel MOSFET
SUPERVISOR	: Mr. Rahul Pandey/ Dr. Praveen Kumar Jain
STUDENT NAME	: Harshit Mathur
TITLE	:Simulation of Floating Point FFT Algorithm for Characteristic Frequency Calculation of Protein Family
SUPERVISOR	: Mr. Vikas Pathak
STUDENT NAME	: Kajal Saini
TITLE	: Miniaturized Structure of Micro-strip Antenna for Breast Cancer Application
SUPERVISOR	: Dr. Monika Mathur
STUDENT NAME	: Dimple Soni
TITLE	: Design and Optical Gain Analysis of Nano Scale Heterostructure GaInP /AlGaInP Red Laser
SUPERVISOR	: Mr. Jay Prakash Vijay
STUDENT NAME	: Yamini Rathore
TITLE	:Simulations of Floating Point Generic DWT and IDWT for Denoising in DNA Sequence for Exam Region Identification in Genes
SUPERVISOR	:Mr. Vikas Pathak
STUDENT NAME	: Vivek Jaimini
TITLE	: Vivek JaminInvestigation of Electrical and Structural Properties of Bismuth /Tellurium Heterostructure on Silicon Substrate
SUPERVISOR	: Dr. Swati Arora

## DEPARTMENT OF ELECTRICAL ENGINEERING

## INTERACTIVE SESSION ON PERSONALITY DEVELOPMENT

An Interactive Session was organized for B. Tech.II & III year EE student. The final year B. Tech. students who were placed in many reputed companies were warmly welcomed. Professor Akash saxena, HOD, Electrical Department felicitated the recruited students. The selected students by various companies shared their experiences during selection process and gave tips about different traits that one should have for getting placed in reputed organizations. The session helped the students to understand the importance of CRT classes and a well drafted resume. The speakers also emphasized the importance of extracurricular activities, good academic record, good communication and technical skills for personality development. Such activities are mentioned in a special column in resume and they grab attention of the employers. Aptitude of the candidates and group discussions were highlighted as the most important factors in placements. II & III year students received guidance to proceed towards their goals. The session ended with a vote of thanks by program coordinator Mr. Vivek Sharma Asst. Professor.



## NATIONAL WORKSHOP ON 'LATEX'

Ms. Pooja Jain (Asst. Professor) organized a three day national workshop on 'Latex' for Beginners from 23 January to 25 January 2019, in J C Bose seminar hall and in MODROB lab for M Tech. Students, Ph.D. Scholars and for faculty members. Latex is a scripting language used for writing documents. The advantages of this are numerous, but it is most beneficial for academic writings. The course layout included: Basics of Latex writing, use of various templates in latex and writing thesis, journal paper and conference paper.

## WORKSHOP ON 'INTERNET OF THINGS'



The Electrical Department took an initiative by organising a workshop “cum hands-on-practice” on “Internet of Things”. Mr. Peeyush Sanam, an expert speaker, addressed the students of various streams of science and engineering. Program layout had two distinct parts: the first half included programming skills and the second half was about assembling the hardware component for different applications. This workshop helped the students in understanding the importance of programming and a good practical approach in classrooms & laboratories. Mr Peeyush also highlighted the importance of good programming and the link between the virtual and the real world. The workshop also underlined the importance of the C programs, knowledge of hardware and the special bond between the technology and human race. The session concluded with a vote of thanks by program coordinator Mr. Vivek Sharma.

## PROJECT EXPO:



Ms. Pooja Jain (Asst. Professor) organized a three day national workshop on 'Latex' for Beginners from 23 January to 25 January 2019, in J C Bose seminar hall and in MODROB lab for M Tech. Students, Ph.D. Scholars and for faculty members. Latex is a scripting language used for writing documents. The advantages of this are numerous, but it is most beneficial for academic writings. The course layout included: Basics of Latex writing, use of various templates in latex and writing thesis, journal paper and conference paper.

## PAPERS PRESENTED:

TOPIC: Adaptive Inertia Weighted Firefly Algorithm.  
AUTHORS: Shailza Sharma, Pooja Jain, Akash Saxena  
CONFERENCE: International Conference on Intelligent Computing Techniques for Smart Energy Systems (ICTSES-2018) Springer Lecture notes in Electrical Engineering.

TOPIC: Opposition Theory enabled Intelligent Whale Optimisation Algorithm.  
AUTHORS: Prateek Jain, Pooja Jain & Akash Saxena  
CONFERENCE: International conference on Intelligent computing Techniques for Smart Energy Systems (ICTSES-2018) Springer Lecture notes in Electrical Engineering.

TOPIC: Cost Benefit Analysis in Distribution System of Jaipur City after DG and Capacitor Allocation  
AUTHORS: Mr. Ankush Tondon  
CONFERENCE: International Conference on Intelligent Computing Techniques for Smart Energy System (ICTSES'18), Manipal University Jaipur on December 22 & 23, 2018

## FACULTY DEVELOPMENT PROGRAM (FDP) ATTENDED:

NAME: Mr. Avadhesh Kumar Sharma and Mr. Ankit Vijayvargia  
TITLE: 'Energy Conservation and Audit' ECA-2018  
DATE: from 21 Jan-22 Jan 2019  
VENUE: Arya Institute of Technology, Jaipur

NAME: Mr. Ankit Vijayvargia  
TITLE: Advanced Optimization Techniques  
DATE: 12 Oct to 21 Oct 2018  
VENUE: mNIT, Jaipur

NAME: Abhishek Gupta and Mr. Ankit Vijayvargiya  
TITLE: Technology and Artificial Intelligence Conclave 2018  
DATE: 8 December 2018  
VENUE: Hotel Radisson Blu, Jaipur

NAME: Mr. Ankit Vijayvargia  
TITLE: 'Advance in Optical Communication  
DATE: 9 February to 14 February 2019  
VENUE: MNIT, Jaipur

NAME: Mr. Jinendra Rahul  
TITLE: Control and Integration Techniques for Renewable Energy Systems  
DATE: 21 to -25 November, 2018.  
VENUE: RTU, Kota.Arya.

## WORKSHOP ATTENDED:

WORKSHOP ON: Artificial Intelligence (AI) & Machine Learning (ML)  
ATTENDED BY: Ankit Vijayavargiya  
ORGANIZED BY: AICTE Training & Learning (ATAL) Academy 22 February to 26 February 2019 at MNIT, Jaipur



# Department of Civil Engineering

## VISIT TO SMART CITY EXPO:

Civil Engineering students visited Smart City Expo India held at Jaipur Exhibition and Convention Centre (JECC), Jaipur on September 28, 2018. Technical presentations were delivered by various national and international delegates on various aspects related to development of smart cities in this expo. Various exhibitor also displayed different materials, technologies, products etc. which can be used to make any city smart. The students and faculty members got benefited by attending this expo.



## **National Conference on Sustainable Development for Smart Cities (SDSC-2019)**

Department of Civil Engineering organized a two day national conference on Sustainable Development for Smart Cities (SDSC-2019) on January 18-19, 2019. Chief Guest of inaugural session Er. Anoop Bartariya, CMD, Sincere Engineers and Architects Pvt. Ltd., Jaipur shared his experiences about the development of Jaipur, Varanasi, Amritsar etc. Various delegates from academia, research institutes and industries such as Dr. T.R. Nayak (Scientist F, NIH Bhopal), Er. K. Sitaramanjaneyulu (Chief Scientist, Pavement Evaluation Division, CRRI, New Delhi), Prof. B.L. Swami (MNIT, Jaipur), Er. Vikram Gupta (Eptisa, Jaipur Smart City Ltd.), Er. G. K. Gupta (Advisor, Tata Projects) and Er. Sandesh Saxena (Ultratech Cement Ltd.) shared their expertise and experiences about the subject in plenary sessions. Around three hundred academicians, research scholars, industry persons participated in the conference and more than thirty research papers were presented in three technical sessions. A poster and model competition was also organized during the conference.



## **Stone Mart - 2019**

Student Chapter of Indian Concrete Institute (ICI), Civil Engineering Department, SKIT organized a visit to Stone Mart 2019 expo on February 3, 2019 held at JECC, Jaipur. Different varieties of stones that can be used for construction were exhibited in this exhibition, Various equipments and machines needed for stone industries were also showcased. The visit provided an opportunity to know more about the latest trends and machines that could be used in their profession.



## **Technical Session by JK Super Cement:**

A Technical session was organized by JK Super Cement on "Manufacturing of Cement and Physical Tests done on Cement" on January 30, 2019 at SKIT campus. Er. Sanjay Gupta (Zonal Head, JK Super Cement) and Er. Arvind Jangid (Rajasthan Head, JK Super Cement) delivered lectures about the topic and shared their experiences.

## **Seminar on Importance of Internship and Way Ahead:**

A seminar cum interactive session on "Importance of Internship and Way Ahead" was conducted by Student Chapter of Indian Concrete Institute (ICI) at SKIT on February 15, 2019. Interaction with senior students was also planned. The students learnt about the challenges and strategies to overcome the challenges.



## **PhD AWARDED :**

Thesis Topic: Gainful Utilization of Limestone (Kota Stone) Waste as Pavement Material Ph.D Awarded to: Pradeep Gautam, Guided by: Dr. Pawan Kalla, From: MNIT, Jaipur, Year: 8 January, 2019

# Department of Management Studies

## NATIONAL SEMINAR ON "INNOVATION AND START UPS"

The Department of Management Studies (SKIT) organized a National Seminar on 'Innovation and Startups' in association with Rajasthan State Productivity Council Jaipur and Indian Institution of Industrial Engineering Jaipur Chapter, on September 8, 2018.

Dr. Maneesha Kaushik, (Convener), in her welcome address said that startups are not only the online market companies confined to just launching a website, but they are all about innovation and creating a niche market for themselves. Prof. (Dr). S. L. Surana, Director (Academics) emphasized that startups and innovation are very important for the development of our nation. Shri Vijay Kumar Sharma from RSPC, discussed about two main activities -- tracing and importance of consultancy for startups. Chief Guest of the seminar Ms. Shweta Chopra, an entrepreneur and a RJ on Radio Pink City, said that idea comes from brain storming so don't allow the mind to sleep. Mr. Sulabh Shukla, a Jaipur based entrepreneur, discussed about connecting with the right investors before starting up and to focus on the capital that one has. Mr. Yogesh Sharma, Manager, IDBI, talked about the reasons behind failure of the Start Ups and warned that success rate of Start Ups is very less, so one should also have a second plan to get the ideas rolling. In the end all students of DMS, SKIT presented their papers on the theme.



## NATIONAL CONFERENCE ON "RIGHT TO INFORMATION" :

Department of Management Studies organized a National Seminar on Right to Information (RTI) Act on 24 October, 2018. The initial remarks were given by Dr. Ona Ladiwal, Associate Professor. Shri Jaipal Meel, Director, SKIT welcomed the guests. Prof. (Dr) S.L. Surana, Director (Academics), SKIT gave information about the Institute. Shri Alok Kulshreshtha, member of TII presented the theme of the seminar to. Shri G.S. Hora, Chairman, TII Rajasthan chapter also addressed the audience. A presentation was given by Shri J.K. Sachdeva, Vice Chairman of TII and Shri Alok Kulshreshtha. Shri V.K. Singhvi, Secretary TII shared his views with the audience. Prizes were awarded to the winners of quiz on RTI, and the paper presentations. A vote of thanks was given by Prof. (Dr) S.K. Calla, Director (D&W), SKIT.



## NATIONAL CONFERENCE ON "CIRCULAR ECONOMY" :

Department of Management Studies (SKIT) in collaboration with Rajasthan State Productivity Council (RSPC) and IIM-A Alumni Association, Jaipur Chapter, organized a National Seminar on 'Circular Economy for Productivity and Sustainability', on the occasion of National Productivity Week Celebrations on February 16, 2019. Discussing the theme of the seminar, Dr. Ona Ladiwal (Coordinator) explained about Circular Economy. Prof. (Dr) S.L. Surana Director (Academics), SKIT opined that information, education, and motivation are very important for the new economy. Prof. (Dr) R.K. Pachar motivated the students by sharing his real life experiences. Shri O.P. Agarwal from IIM-A Alumni Association, Jaipur Chapter, explained the concept of circular economy through various examples. Shri V.K. Sharma, Secretary RSPC, Jaipur talked about 3R's- Reduce, Recycle and Reuse-- of our economy. The key speaker Prof. (Dr) S.S. Somra, Head, Department of Economics, University of Rajasthan, gave some practical tips on current economy. In the end all the winners of the productivity quiz were given the prizes and certificates. A vote of thanks was proposed by Dr. Savita Choudhary.



## PANEL DISCUSSION ON UNION BUDGET-2019

A panel discussion on Union Budget-2019 was organized by the Department of Management Studies on February 5, 2019. The Panelists shared their views related to agriculture, rural development, trade, economy, taxation, housing, health, education, science & technology, banking, finance, infrastructure development, defense and social sectors.

The students presented a comparative picture of the current budget and the budgets of previous years. In the following session CMA Akshay Sen, of Hindusthan Zinc Ltd. shared his expert knowledge on the budget. He discussed various technical aspects of the budget & taxation.

The discussion was coordinated by Dr. Atul Gupta, Associate Professor. These discussions helped the audience in understanding the impact of budget on the individual and economy.

### NPTEL COURSES:

**NAME :** Dr. Savita Chaudhary  
**TOPIC/ SUBJECT :** Leadership  
**DURATION :** July-October, 2018

**NAME :** Dr. Atul Gupta  
**TOPIC/ SUBJECT :** Marketing Management  
**DURATION :** July to September 2018

**NAME :** Dr. Ona Ladiwal  
**TOPIC/ SUBJECT :** Stress Management  
**DURATION :** July-October 2018

**NAME :** Dr. Manisha Kaushik  
**TOPIC/SUBJECT :** E-Business  
**DURATION :** July to October 2018



# Papers Published :

<b>TITLE</b>	Examining the Effect of Outstanding Orders in Stochastic Inventory Systems
<b>AUTHORS</b>	Achin Srivastav, Nidhi Srivastav, S Agrawal.
<b>JOURNAL</b>	SKIT Research Journal Vol. 8 issue 2 Pg. 51-55.

<b>TITLE</b>	NAM- A nearest Acquittance Modeling approach for VM Allocation Using R-Tree.
<b>AUTHORS</b>	A. Jiyan, M. Mahrishi,
<b>JOURNAL</b>	International Journal of Computers and Applications (IJCA), Taylor & Francis, SCImago (Elsevier), Scopus (Elsevier), 2018

<b>TITLE</b>	Solving an Intractable Stochastic Partial Backordering Inventory Problem using Machine Learning
<b>AUTHORS</b>	Nidhi Srivastav, Achin Srivastav
<b>JOURNAL</b>	ICETCE-2019

<b>TITLE</b>	Performance of Fuzzy Filter and Mean Filter for Removing Gaussian Noise
<b>AUTHORS</b>	Pankaj Dadheech
<b>JOURNAL</b>	International Journal of Computer Applications (0975 – 8887), Volume 182 – No. 38, January 2019, pp 29-35, DOI: 10.5120/ijca2019918399.

<b>TITLE</b>	Comparative analysis of Energy Consumption in Sensor Node Scheduling Heuristics in Wireless Sensor Network”,
<b>AUTHORS</b>	Dr. Sunita Gupta
<b>JOURNAL</b>	Engineering Vibration, Communication and Information Processing, Lecture Notes in Electrical Engineering 478, DOI 10.1007/978-981-13-1642-5_36 Springer Nature Singapore Pte Ltd. 2019, K. Ray et al. (eds.). Indexed at ISI Proceedings, EI Compendex, DBLP, SCOPUS, Springer link.

<b>TITLE</b>	Modeling and Experimental Investigation for Performance and Emissions on a Diesel Engine using Bio-oxygenated Ternary Fuel Blends
<b>AUTHORS</b>	Ashish Nayyar, Dilip Sharma, Shyam Lal Soni, Bhuvnesh Bhardwaj, Manu Augustine
<b>JOURNAL</b>	Energy, Elsevier, ISSN: 0360-5442, 168, pp. 136-150, 2019

<b>TITLE</b>	Experimentally Optimization of a Variable Compression Ratio Engine Performance Using Different Blends of Cotton Seed with Diesel Fuel at Different Compression Ratio
<b>AUTHORS</b>	Satendra Singh, Ashish Nayyar, Rahul Goyal, Mahesh Saini
<b>JOURNAL</b>	International Journal of Mechanical Engineering and Robotics Research ISSN: 2278-0149, 8(1), pp. 121-128, 2019

<b>TITLE</b>	Exploring the Musculoskeletal Problems and Associated Risk-factors among Brick Kiln Workers
<b>AUTHORS</b>	Manoj Kumar Sain, Makkhan Lal Meena
<b>JOURNAL</b>	International Journal of Workplace Health Management, Emerald Publishing Limited, ISSN: 1753-8351, 11(6), pp. 395-410, 2018

<b>TITLE</b>	Identifying Musculoskeletal Issues and Associated Risk-factors among Clay Brick Kiln Workers
<b>AUTHORS</b>	Manoj Kumar Sain, Makkhan Lal Meena
<b>JOURNAL</b>	Industrial Health, National Institute of Occupational Safety and Health, ISSN : 0019-8366, 2018, doi: 10.2486/indhealth.2018-0096
<b>TITLE</b>	Effect of Diesel-Methanol-Nitromethane Blends Combustion on VCR Stationary CI Engine Performance and Exhaust Emissions.
<b>AUTHORS</b>	Chandan Kumar, Kunj Bihari Rana, Brajesh Tripathi
<b>JOURNAL</b>	Environmental Science and Pollution Research, Springer, ISSN: 0944-1344, pp. 1–15, 2019, <a href="https://doi.org/10.1007/s11356-018-04058-1">https://doi.org/10.1007/s11356-018-04058-1</a>
<b>TITLE</b>	Analysis of Critical Drivers Affecting Implementation of Agent Technology in a Manufacturing System
<b>AUTHORS</b>	Om Ji Shukla, Abhijeet Joshi, Gunjan Soni, and Rajesh Kumar
<b>JOURNAL</b>	Journal of Industrial Engineering International, Springer,ISSN: 1735-5702, pp. 1-11, 2019, <a href="https://doi.org/10.1007/s40092-018-0293-3">https://doi.org/10.1007/s40092-018-0293-3</a>
<b>TITLE</b>	Parametric Study on Printing Time and Cost of Component in 3D Printing
<b>AUTHORS</b>	Mahesh Sharma, Praveen Saraswat, Dheeraj Joshi
<b>JOURNAL</b>	SKIT Research Journal, SKIT, ISSN: 2278-2508, 8(2), pp. 45-50, 2018
<b>TITLE</b>	Examining the Effect of Outstanding Orders in Stochastic Inventory Systems
<b>AUTHORS</b>	Achin Srivastav, Nidhi Srivastav, Sunil Agrawal
<b>JOURNAL</b>	SKIT Research Journal, SKIT, ISSN: 2278-2508, 8(2), pp. 51-56, 2018
<b>TITLE</b>	Simulation-based Study of Gravity-powered Illumination Apparatus Using MATLAB Simulinks
<b>AUTHORS</b>	Mayank Aggarwal, Lakshya Yadav, Praveen Saraswat
<b>JOURNAL</b>	International Journal of Electro Mechanics and Mechanical Behaviour, 3(2), 2018
<b>TITLE</b>	Wave Function and Optical Gain Analysis in Al 0.42 Ga 0.58 As/ GaAs 0.64 Sb 0.36 Type-I Quantum Well Hetero Structure under the Effect of External Electric Field
<b>AUTHORS</b>	Jay Prakash Vijay, Praveen K. Jain, Amit Rathi
<b>JOURNAL</b>	International Journal of Applied Engineering Research ISSN 0973-4562, Vol. 13, No. 8 pp. 24-29, 2018
<b>TITLE</b>	A Miniaturized Structure of Implantable Antenna for Biomedical Application
<b>JOURNAL</b>	AUTHORS: Kajal, Monika Mathur SKIT Research Journal, Vol. 8, Issue-2 pp. 37-39 ISSN-2278-2508, May, 2018
<b>TITLE</b>	Study of Structural, Magnetic and Optical Properties of BiFeO <sub>3</sub> -PbTiO <sub>3</sub> Multi-ferroic Composites
<b>AUTHORS</b>	Mohammad Shariq, Davinder Kaur, Vishal Singh Chandel, Praveen K. Jain, Sasi Florence, Mukul Sharma, Shahir Hussain
<b>JOURNAL</b>	Arabian Journal for Science and Engineering, Volume 44, Issue 1, pp. 613–621,January, 2019
<b>TITLE</b>	High Speed Implementation of Notch/Anti-notch IIR Filter on FPGA
<b>AUTHORS</b>	Vikas Pathak, Satyasai Jagannath Nanda, Amit Mahesh Joshi, Sitanshu Sekhar Sahu
<b>CONFERENCE</b>	IEEE India Council International Conference (INDICON-2018), pp. 315-320
<b>VENUE</b>	Amrita Vishwa Vidyapeetham, Coimbatore16 to 18, December, 2018



<b>TITLE</b>	Stress Management
<b>AUTHORS</b>	Dr. Ona Ladiwal
<b>JOURNAL</b>	Journal of Current Science-ISSN NO-9726-001X, (UGC Approved-64664) VOL-19, NO-08, August 2018.
<b>TITLE</b>	Leadership Development Practices in Organizations-An Overview
<b>AUTHORS</b>	Dr. Ona Ladiwal
<b>JOURNAL</b>	SKIT Research Journal ISSN NO 2278-2508 in Volume 8(1) 2018
<b>TITLE</b>	The Impact of Social Advertising Campaigns in Shaping the Behaviour of the People in Rajasthan
<b>AUTHORS</b>	Dr. Atul Gupta
<b>JOURNAL</b>	Oorja, International Journal of Management & ITVolume16/ Number: 1, July, 2018
<b>TITLE</b>	Funding Galore—Enlightening the Startup Funding Scenario
<b>AUTHORS</b>	Dr. Maneesha Kaushik
<b>JOURNAL</b>	Journal of Modern Management & Entrepreneurship (JMME)ISSN:2231 – 167XVolume08, No.03, July 2018, pp. 79 – 83
<b>TITLE</b>	Corollaries of Human Resources Management Strategies on Entrepreneurial Success of Startup Entrepreneurs in the Jaipur District of Rajasthan Funding Galore.
<b>AUTHORS</b>	Dr. Maneesha Kaushik
<b>JOURNAL</b>	Journal of Modern Management & Entrepreneurship (JMME)ISSN:2231 – 167XVolume08, No.03, July 2018, pp. 79 – 83
<b>TITLE</b>	Growing Online Industry in India-A Glimpse
<b>AUTHORS</b>	Dr. Ona Ladiwal
<b>JOURNAL</b>	Tournal of Current Science-ISSN NO-9726-001X, VOL-20, NO-01, (UGC Approved-64664) January 2019

<b>TITLE</b>	Application of Grey Wolf Optimization in Optical Control of DC Motor and Robustness Analysis'
<b>AUTHORS</b>	Mr. Abhishek Gupta
<b>JOURNAL</b>	SKIT Research Journal Volume 8; Issue1:2018

<b>TITLE</b>	Biocatalytic and Electrochemical Reduction of Ethyl Levulinate
<b>AUTHORS</b>	Poonam Ojha, P.S. Verma and I.K. Sharma
<b>JOURNAL</b>	Nature & Environment VOL 23, ISSUE 1 (2018) pp. 36-40 E-ISSN 23218738

<b>TITLE</b>	Yeast Mediated Reduction of Keto Amides and Keto Esters
<b>AUTHORS</b>	Poonam Ojha, P.S. Verma and I.K. Sharma
<b>JOURNAL</b>	Advanced Science, Engineering and Medicine VOL.1,ISSUE (2019) pp 141-143 ISSN 2164-6635 (Online)

# Engineering : Engines of Economy

Are you in the Engineering College to get a degree & a job or are you here to become a real Engineer? Engineering is the most important profession for the growth of economy but a lot of students pursue it without understanding its importance and only for gainful employment. This has worked out so far, as the demand of engineers especially in IT company was so great that often a degree was sufficient to get a good job. But with the changing scenario of world economy, rise in Artificial intelligence & rising competition from other nations, unless students change their attitude, employment isn't a guarantee. The need and opportunity is for both self and the nation. I believe that Indian brain is the best brain. Our engineering graduates are CEOs of the world leading companies like Google, Microsoft, Adobe etc., but the nation has not been able to get benefit of the Indian brain. This is the reason India continues to be a developing country for last 71 years and may continue to be in the same situation for next few hundred years.

Everyone who takes admission into engineering education should be clear about the objective of pursuing the profession. A journey can be successful only when there is clarity about destination. Presently, if students are asked what their career objective is; the general reply is that it will be made in VII semester. Right from first semester students should be clear about their career objective and then curriculum of all the up-coming semesters should be pursued by keeping the objective in mind. If this approach is adopted then there will be inquisitiveness in the mind for all the topics covered in the curriculum. As on date if a student is asked why you are studying this topic, the usual reply is—'because it is in curriculum'. It has also been observed that many students consider themselves less than the best; they are often heard saying 'had we been good we might have got admission in IITs'. Success is 1% inspiration and 99% perspiration. Right attitude, hard work and self confidence can open doors to success. Clarity on objectives and preparation towards the objective develops confidence and once there is confidence success is ensured. Students also feel handicapped in communication skills. This is often due to lack of experience in speaking in English. This one is easier to overcome. It requires concerted effort and discipline. Make your own group of five students to

practice speaking only in English, also faculty members need to talk to students only in English. Incidentally, Toastmasters Club has proved that even Hindi school pass outs can defeat company executives. Awards won by members of Toastmasters Club prove this point. Efforts also need to be put in for soft skills for which program is being run by faculty members. Obviously, the question would come to mind why soft skill is important for an engineer? Most companies feel that that engineers work requires exchange of ideas and information with other people so soft skills improve the productivity & effectiveness of the employees. Many of the IT companies like Wipro, Infosys & TCS are in the consultation business and their employees need to be presentable to their clients often based in other countries. This increases the need for excellent communication & soft skills.

SKIT is putting in all possible efforts and therefore students should take advantage of these to be a good engineer to serve the nation. A bank of society problems has also been created to motivate students to look for problems being faced by society so that we may look for solutions. Also, SKIT is pursuing GRAMOTHAN project by adopting two nearby villages and by taking up visits to look for problems and evolve solutions so that quality of life of rural society may be improved.

Finally, I would like to mention that in my view engineer happens to be replica of god from view point of creation, maintenance and also destruction (recycling). Why so? Because what all we are enjoying today has been created by engineers only and all future innovations will be made by engineers. We have a glorious past and future can only be golden if we build confidence & work hard in the present.

**(Prof. M.L. Bhargava)**

Scientists investigate that which  
already is; Engineers create that  
which has never been.

— *Albert Einstein* —



## JAIPURIA QUIZ LEAGUE :

Jaipuria Institute of Management organizes a quiz competition named Jaipuria Quiz League. This year SKIT students participated with full enthusiasm and competed with a hundred teams, each consisting of two members.

The event was conducted on 17 October 2018 in college premises. Mr. Harshvardhan Singh Shekhawat, along with two faculty members of Jaipuria Institute, came with the required material for the quiz. The answer sheets were checked on the same day under the invigilators' supervision and the results were announced. Anjali Jain and Naman Mishra were placed first, Akshit Sharma and Abhishek Khedia came second and Priyansh Ajmera and Utsav Jayaswal bagged the third prize with cash award of 5000/- each, one USB and gift vouchers respectively. The other participants received participation certificates.

## TIMES OF INDIA ENGLISH SPEAKING PROGRAMME :

Some fumbled at the beginning, while a few others were a bit hesitant. But as the [Times Speak English](#) Challenge, organized at Swami Keshvanand Institute of Technology, progressed, the students learnt to shed their inhibition. Times Speak English, a mobile application by TOI and powered by English Edge, is a tool that enables young people to improve their spoken English skills.

The jam packed SKIT auditorium was filled with laughter and amusement as judges gave quirky tasks to participants that included translating Hindi movie dialogues and songs into English and introducing one's girlfriend to the parents while conversing only in English. The judges at the event were social media influencers Kuldeep Singhania and Nidhi Agrawal and SKIT's Head of English Department, Dr. Niraja Saraswat.

The three winners were Mohammed Mohsin, Archit Jain and Sanidhya Saxena.

## FOOTLOOSE COMPETITION:

Dance is the manifestation of a silent communication between the body and the soul. It expresses what is too deep for words'. An intra-college dance competition - 'FOOTLOOSE-2019' was organized for students of SKIT on January 23, 2019 in Gyan Mandir auditorium. The categories for the competition included solo, duo and group. The attractive costumes, fluid dance movements and

fascinating props made it tough for the judges to decide the winner.

The judges for the day were Mr. Neeraj Dhawan and Dr. Swati Arora. The programme concluded showing glimpses of the annual fest of SKIT - PRAVAH-2K19. Later, the winners and runners up were awarded with a certificate and a trophy. The winner for Solo category was Bhoomika and runner-up for the event was Aakash Sharma. The winners for Duo category were Nikhil and Shaurya. The winner for Group category was Bhangra Freaks.

## SUR KSHETRA (SINGING COMPETITION): A PRE-PRAVAH EVENT

Pravah team successfully organized a pre-Pravah event 'Sur Kshetra' on 6 February, 2019 in Gyan Mandir auditorium. The event witnessed almost thirty participants from different branches. The winner will get a direct entry in Sur, the inter college event. The judges were Dr. Niraja Saraswat, and Dr. Dheeraj Joshi. The auditorium was filled with melodious reverberations and the cheers of the audience. The RJS from 94.3 My FM Ms. Sonali was the special guest of the event. She invited the students on the stage for mimicry and distributed passes for 'The evening with a standup comedian'.

The title of the winner was bagged by Rohit and group. The winners were given the prizes. The event was jointly organized by Dr. Jyoti Arora and Ms. Nivedita Gupta, Dept. of Mathematics. The event came to an end with a vote of thanks for judges and the coordinators of the event.

**“INDEED, THE WOES OF SOFTWARE ENGINEERING ARE NOT DUE TO LACK OF TOOLS, OR PROPER MANAGEMENT, BUT LARGELY DUE TO LACK OF SUFFICIENT TECHNICAL COMPETENCE.”**

**NIKLAUS WIRTH**

## Intelligent Audio Technology - OZO

As mobile users are growing apace, they want the video quality to be at its best. All the mobile companies are in an ongoing race with each other to give the best visual experience to their users. But, in this race they compromise with the audio quality. Audio technology hasn't kept pace with the video and image capture innovations. From the users' point of view, it is required that the quality of audio should also upgrade. So the companies are coming with intelligent audio services for the users.

Nokia has developed OZO technology which will track the desired sound. OZO audio is intended to provide an immersive audio experience where you can hear the sound from the right direction. The aim is to improve the quality of user generated content by focusing on the audio direction. This means that the consumer can zoom and focus on a particular person in a scene where a group of people are in conversation with each other. The technology is able to give the user an experience which is similar to how the human ear works when it hears sound. It can also limit the distracting background noise; it can adjust the audio to a specific part of the screen and select what matters. OZO also allows users to maintain audio focus on moving people or objects and it automatically follows a source of sound with the audio focus parameters that are controlled by object recognition. OZO audio technology teaches the software to figure out how the scene is shot and take decisions on how to match and control the audio.

Since OZO is a software based technology, it does not require any hardware adjustments so there are very few limits on what camera hardware can use it. The use of intelligent audio balanced with proper imaging and video technologies will completely transform the way in which people share their experiences on all platforms. AI and machine learning automatically create great visual experiences for users without wasting much time on editing the images or videos. So, with the arrival of this new intelligent audio technology, the most common complaint of consumers to have right sound in their videos is also resolved. With this they will be able to focus not only on the relevant audio sources but also suppress the unwanted background noise. OZO audio is such an immersive experience that takes the user content to new heights where the audio finally stands side-by-side with the images.

This technology will be used to enhance audio quality while capturing video. We can also focus on a particular person or instrument for enhancing the concerned audio.

**Richa Sharma**  
Asst. Prof. Dept. of ECE



## MIMO Antennas for 5G Applications :

After the evolution of high definition (HD) and quadruple high definition (QHD) video resolutions, it becomes quite difficult for the handheld devices to send or receive large volume videos on the 3G and 4G frequency channels. It thus becomes a necessity to have a wider bandwidth and a faster data rate for rapid transmission and reception of high quality multimedia wirelessly from one terminal to the other. To cater to this problem, 5G frequencies are under research, due to their wider bandwidth.

5G offers greater bandwidth with more number of frequency channels as compared to 3G and 4G thus making it suitable for an increased number of users who demand fast data rate on the go.

### Features of 5G:

- Bi-directional large Bandwidth
- 25 Mbps connectivity speed
- Enhanced & available connectivity just about the world
- Uploading & Downloading speed of 5G touching the peak (up to 1 GBPS)
- Better & fast solution

### Challenges Facing 5G:

Besides its impressive features, 5G frequencies face a potential problem related to the low penetration power due to which the signal fades and gets weaker while reaching from transmitter to receiver. Obstacles like buildings, trees and even bad weather can also cause interference. To offset this, carriers will need to install more base stations to ensure better coverage and use antenna technologies like Multiple Input Multiple Output (MIMO). MIMO antennas can be a better solution to enhance the range of the transmitted signal.

Another issue associated with the 5G designs, is that mostly the antennas are not in MIMO configuration, which makes them unsuitable for devices demanding a high data rate and thorough performance. There is therefore a strong need to develop the MIMO antennas for 5G devices so that a higher data rate and a wider bandwidth can be made possible.

**Harshal Nigam**  
Asst. Prof. Dept. of ECE



## My Deep Sight in The Dark Night

I love the night,  
Just me & my thoughts so bright;  
I didn't need to pretend,  
And didn't need to give a smile so forged;  
The solitude is beautiful,  
And the feelings are soulful;  
Deprived from the harsh noise,  
Believe me there is just silence;  
no one is there to judge you,  
no one is there to make fun of you;  
Looking at the outer beauty,  
the stars' & moon's shine in the city;  
There is a beautiful natuescape,  
And everything so true;  
I love the beautiful night,  
Just me & my thoughts so bright.

Saijal Gulyani, IT-1st Year.

## ONCE AGAIN THE DOOR KNOCKED

Once again  
The door knocked  
The hopes came in  
Settled for a while  
Giving the best of time  
And left like the void

Once again  
The door knocked  
It was dream on the door  
I let it come in  
I started watching it  
And it left with the crack...

Once again  
The door knocked  
This time I was scared  
I tried to open the door  
It was feeling on the door  
I Let them in  
Allowed them to sit  
And feel the depth  
But all they did was  
playing with the depth  
For having fun..

And again the door knocked  
It was the fourth time  
But this time  
I took the courage  
Refused to open it  
And the one on the door  
Left silently...

Miss Jain, MBA

## रंगमंच

हर पल रंगमंच बदलते देखा है, नायकों को आते जाते देखा है,  
जो मंच बदलने निकले थे, उनको मंच से जाते देखा है।

हर कोई मंच का हिस्सा है, हर किसी का कोई किस्सा है,  
वो किरदार निभाते चलते हैं, बस वक्त है जो अनदेखा है।

तय समय की सीमा पहले से, हर दहला है इक नहले पे,  
पर समय का इक्का चलता है, उसको चाल पलटते देखा है।

नायक को किरदार निभाना है, हर पल डूबे जाना है,  
समय से वो अनजाना है, जाने कब मंच से जाना है।

नायक का मंच से जाना हो, फिर कुछ जाना पहचाना हो,  
सब भाव निकलने लगते हैं, जब मंच बदलने लगते हैं।

रंगमंच बना ही रहता है, बस नायक आते जाते हैं,  
कुछ खुद के लिए जीते हैं, वो सब खुद में रह जाते हैं,

जो जीते हैं, औरों की खातिर, अच्छी यादें बन जाते हैं,  
पर हटकर चलने वालों को मंच, नाम करते देखा है।

रजत शर्मा

तृतीय वर्ष

संगणक विज्ञान और प्रौद्योगिकी

## यात्रा

सबसे प्यारा था बचपन, ना कुछ लेना था और ना कुछ देना था,  
जहां पाता दुलार, उसी ओर मुड़ जाता, बिना किसी विचार,  
गाय, कुत्ता, कुल्फी वाले चाचा, मंदिर वाले बाबा, स्मृति में जो भी था,  
सब था उसका परिवार।

धीरे-धीरे समझ ने घेरा उसके मन के भोलेपन को,  
अब परिवार कहने लगा था, दो-चार जनों के घर को,  
जो सबका था, वो अब होने लगा तेरा-मेरा,  
थोड़ा-थोड़ा झूठ भी भाने लगा था मन को।

हर दिन लेकर आता नया उजाला, नई शक्ति और नया विश्वास,  
ये भी सीखूं, वो भी सीखूं, पा जाऊं, चारों ओर फैला उजास,  
कुछ बन जाने को, खूब जमा किया ज्ञान और आत्मविश्वास।

धन भी पाया, नाम कमाया, घूम आये सात समंदर पार,  
देश-विदेश, समाज, रिश्तेदारों में कहलाये जाते होशियार,  
जोड़-तोड़ की ऐसी गणित बैठते, दान-दक्षिणा भी देते अपार।

पार कर लिए थे कई पड़ाव, कोई कमी नहीं थी अपने पास,  
पर कुछ तो था, जो खालीपन का कराता था अहसास,  
पूछा सबसे, फुर्सत में ढूँढ़ा भी था कई बार, पर लगा ना कुछ भी हाथ।

सबने सिखलाया था, धन-बल हो तो सब कुछ है आसान,  
हर विधि लगा, जमा किये अस्त्र-शस्त्र, दौलत इंद्र समान,  
फिर भी खोज ना पाऊं, उसी मी को, मैं हूँ हैरान।

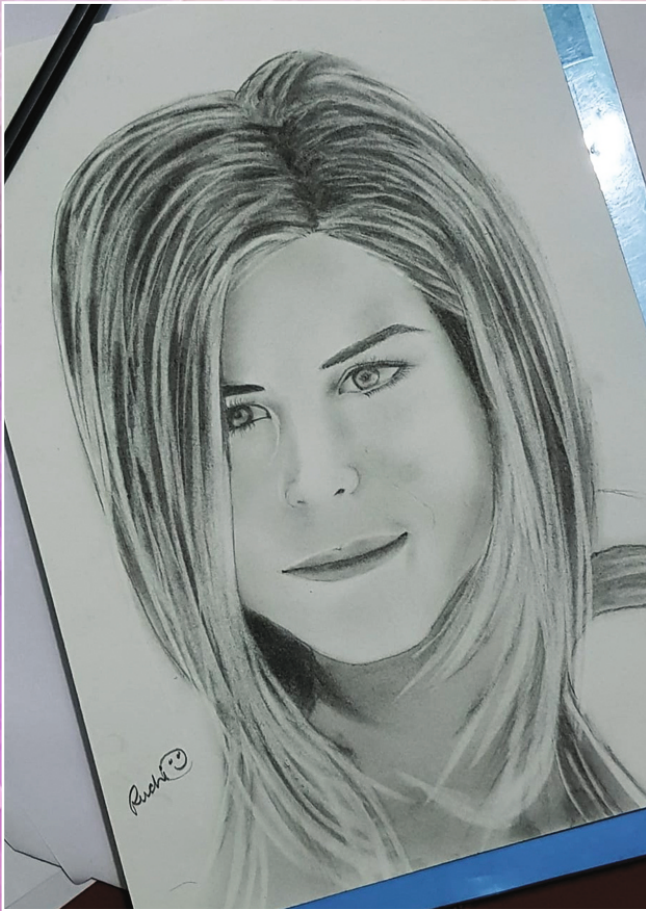
बीते जा रहे थे, समय, उम्र और कबाड़ की तरह जमा किये सामान,  
यहाँ की, वहाँ की, किसी की कोई मदद न आती थी काम,  
ग्रंथ पढ़ लिये, धर्म बदल लिये, योग-आसन भी ना कर पाये समाधान।

इस दिन, फिर से बैठे देखा बचपन, तब समझ आई वो बात,  
उम्र गुजार दी यूँ ही सारी, उत्तर तो था अपने ही पास,  
बचपन जैसी, मन के भीतर-बाहर समता होती, तब ना होता ये सवाल।

डॉ. प्रमिला कुमावत

गणित विभाग





Ruchi Kumari, EC III Year



Ruchi Kumari, EC III Year



Vijeta Kachawa, (Assistant Professor- CS)



Vijeta Khicha, (Assistant Professor- CS)