

# INSIGHT

Computer Engineering Department's Newsletter

Volume 05, Issue 01, July - December 2020

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## UPCOMING EVENTS

**Faculty Incharge:**

Manisha Fal Dessai

**Student Incharge:**

Nigel Mendonca

## VISION

To be recognized as a center of excellence in the field of computer engineering, engaging with and maintaining a strong association with leading organizations, nurturing professionals and entrepreneurs with a positive mind set coupled with societal concern.

## MISSION

- To keep pace with the latest software and hardware development within and beyond the curriculum so as to nurture competent professionals.
- To enhance research opportunities and entrepreneurship opportunities in the department by promoting application based education and partnership with the industry.
- To foster a holistic learning ambience by inculcating professional behavior, problem solving skills, student-faculty collaboration and socio-ethical awareness.

## STUDENTS CORNER

**C-CODES Installation with  
“INSPIRUS 2K20 - Make it Happen”  
National level Intercollegiate Event**

The Installation of students council of computer Engineering (C-CODES) and 4th inaugural ceremony of “INSPIRUS 2K20” was held on 20th November 2020.



This ceremony ensued in the presence of the chief guest for the day, Dr Rishabh Anand, Global Service Delivery Manager at HCL Technologies, Noida, Director Rev. Fr. Kinley D’Cruz , Principal Dr. Neena S. P. Panandikar, Head of the computer department Dr. Gaurang Patkar as well as the faculty members of Computer Engineering Department of Don Bosco College of Engineering, Fatorda.

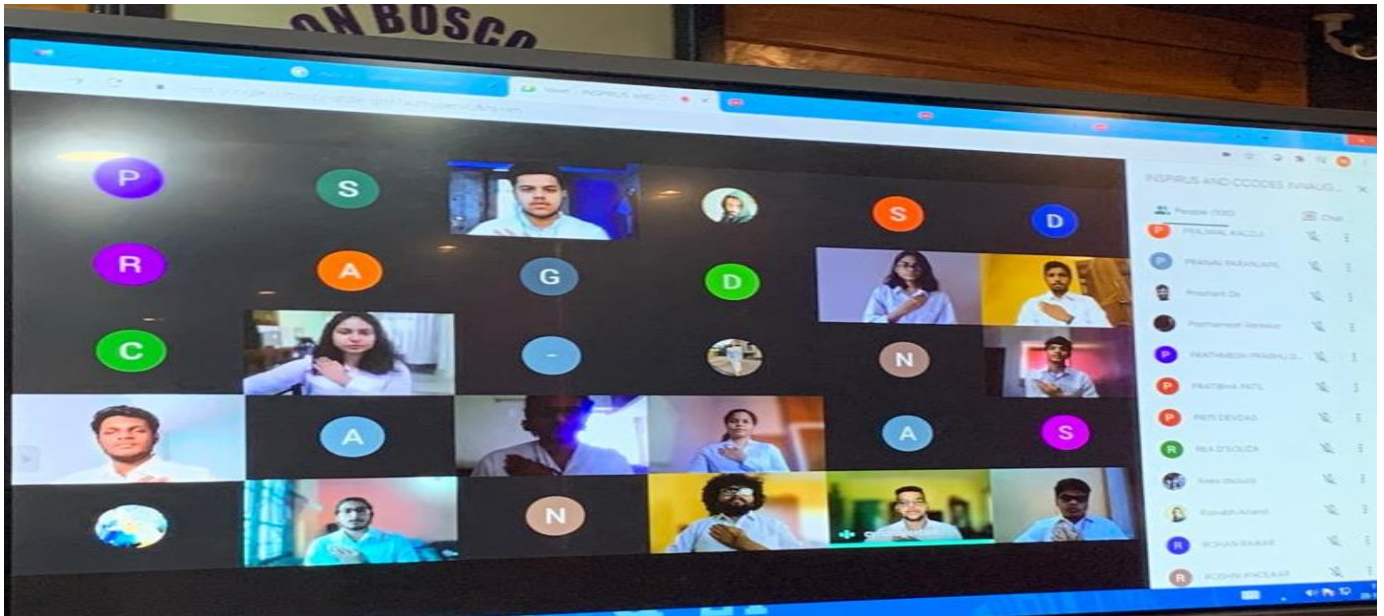
The inaugural ceremony commenced with the introduction to C-CODES by Ms. Ritika Ghanti, who spoke about C-CODES and what it stands for and aims to achieve. Special mention of the highlight of Inspirus 2K20 – the **48 hour online Hackathon** called **Inspirathon** was also mentioned. An overwhelming response was also recorded for this year’s Inspirus with entries from 5 states.

Principal Dr. Neena Panandikar then spoke a little about our Chief Guest and furthermore shared her views on C-CODES and Inspirus, and applauded the efforts taken by the council and faculty coordinators for the same. Rev. Fr. Kinley D’Cruz then spoke and gave his views on the transpiring event and wished all the best for all participants.

The report for the C-CODES Council of 2019-2020 was then delivered by Prof. Merwyn D’souza in which he stated the activities carried out by the C-CODES council for the previous year and a brief overview of the previous year’s Inspirus as well. Appreciation towards the outgoing C-CODES members then ensued which was followed by the introduction of the new C-CODES council headed by chairman Mr. Cyndroy Rebello for the academic year 2020-2021. The members of the new council took oath.

The Chief Guest for the day Dr. Rishabh Anand then declared Inspirus 2k20 open. Prof. Amey Kerkar then introduced the noteworthy guest, Dr. Rishabh Anand and listed off his salient accomplishments. Dr. Rishabh Anand then delivered insightful knowledge on the working industry 4.0 technologies. He has

completed his PhD in Computer Science and has also completed his MBA amongst other stellar achievements. He has also authored 36 textbooks on engineering and is associated with IEEE. The vote of thanks was proposed by Dr. Gaurang Patkar who echoed our words of appreciation and thanks. A question and answer session then transpired between Dr. Rishabh Anand and the present attendees after



which the ceremony was convened.

## WORKSHOPS/ SEMINARS/ INTERNSHIP TRAININGS

### 1. INTERNSHIP TRAINING

Students from Second and Third year computer engineering participated in online internship program floated by cloud counselage, Mumbai. Near about 30 students from second as well as third year participated in the same and have learned various frontend as well as back end technologies that cater requirements of cloud computing in real world. Mini projects were assigned to all students to be implemented based on the learning that happened in the internship. About 80% of the students could successfully complete and present their project to appropriate team lead and mentor from the company.

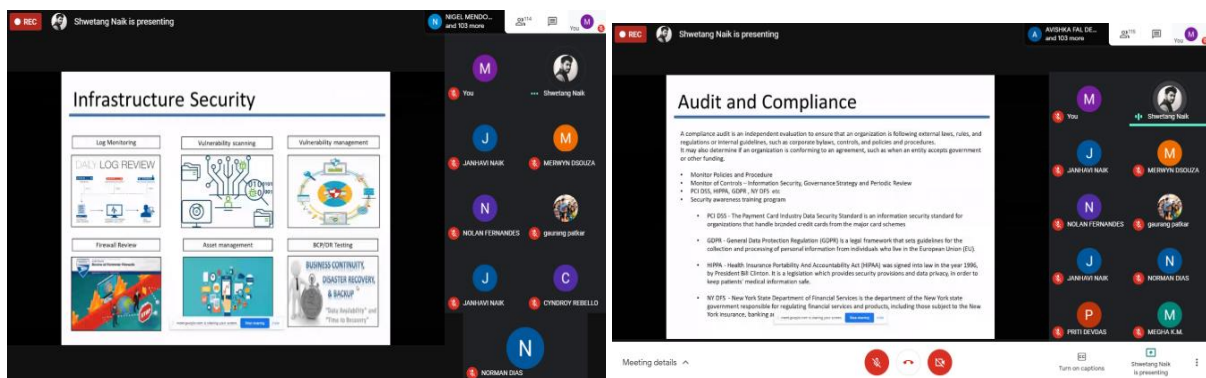
Near about 15 students from second year computer engineering also participated in online internship training in Persistent systems limited, Verna. Students were trained on different technologies like node-JS, MongoDB, React-JS...ect. Students performed various

experiments using these technologies. They could complete their given assignments at the end successfully. Certificated were given to all students who could deliver good results at the end.

## 2. Online Webinar on “INFORMATION SECURITY”

C-CODES in association with the Department of Computer Engineering, DBCE on 15th September 2020, organized a webinar on INFORMATION SECURITY conducted by Mr Shwetang Naik an information security Associate at Fiserv Pune, Maharashtra and Professors Merwyn D’Souza, Siya Naik and Janhavi Naik (Computer Engg. Dept, DBCE, Fatorda) were the co-ordinators It was held for the students of the computer department via Google Meet.

Information security or infosec is concerned with protecting information from unauthorized access. It's a part of information risk management and involves preventing or reducing the probability of unauthorized access, use, disclosure, disruption, deletion, corruption, modification, inspect, or recording. A small attack can have a very large impact. Prof. Merwyn and Prof. Siya gave an introduction to Information Security .

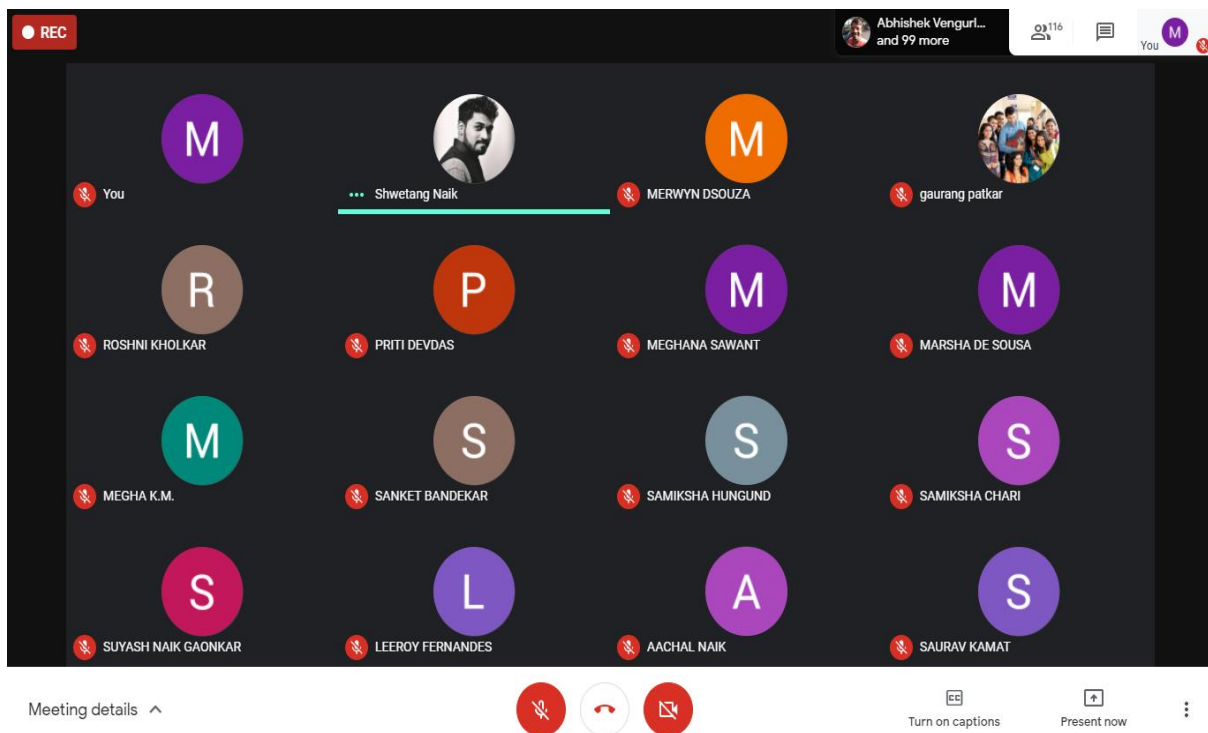


The session gave us an insight about protecting our data without any misuse by an unauthorized third party which is very useful in the military, commercial, personal and financial sector. We were informed about the various security testing types namely Penetration Testing, Application security and Infrastructure security. We were made aware of the OWAPS (Open Web Application Security Project) Top 10 that is the 10 most critical security risks concerns for web application security. The resource person, Mr Shwetang Naik gave a brief demo on how to perform SQL injection.

We were told about how Google stores user data and if required they can look into it as well. Hence information security is very necessary in our social lives. So a few tips on how we can be secure are:

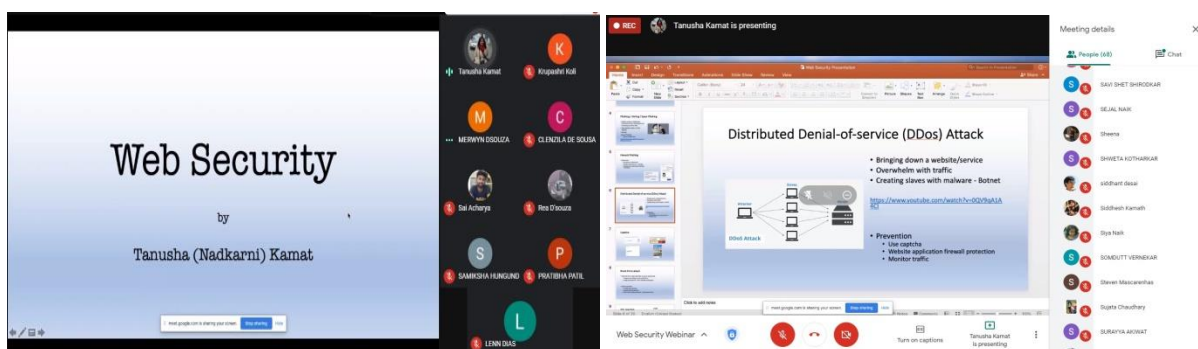
- Keep your personal information secure
- Read privacy policies, terms and conditions

- Avoid public wifi
- Don't over share on social networking sites
- Avoid phishing emails



Prof. Janhavi spoke on Audit and compliance. The webinar was concluded by an interactive question-answer session which were gladly answered by Mr. Shwetang Naik. The student coordinators are Cyndroy Rebello, Sheena Mashelkar, Nihal Kamat, Ashish Mishra, Tanay Rataboli, Ritika Ghanti and Nargish Khan.

### 3. Online Webinar on “WEB SECURITY”

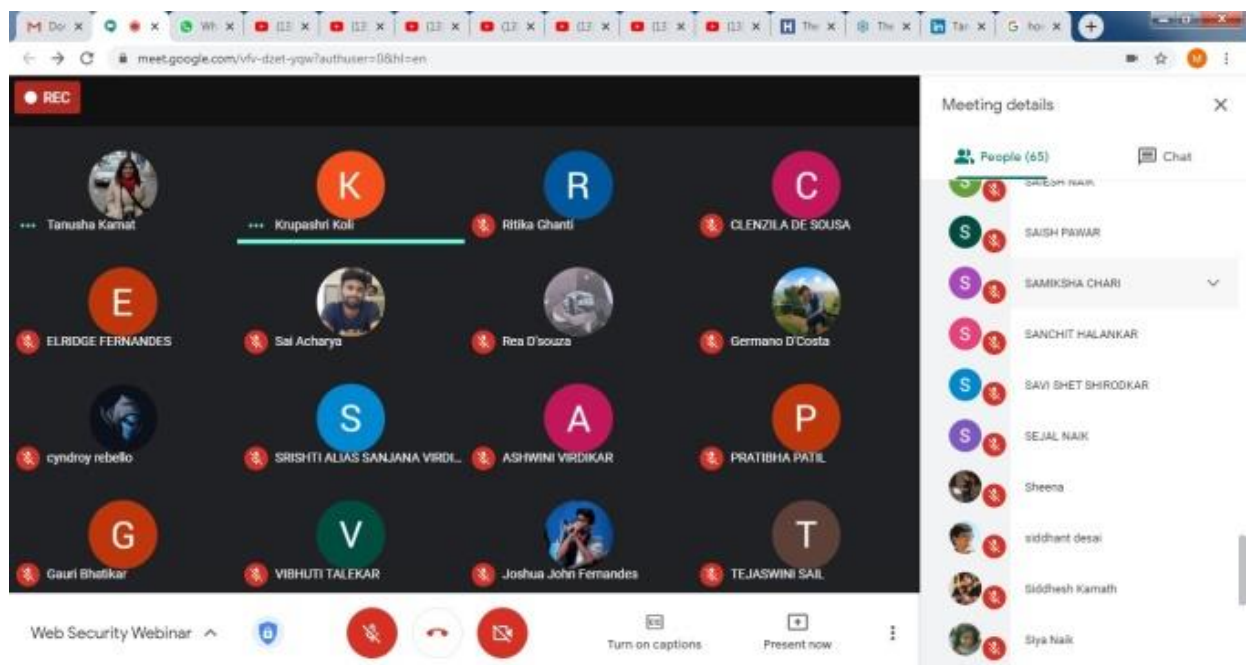


The Computer students association, C-CODES, in association with the Department of Computer Engineering, DBCE, on 17th October 2020, organized a online webinar on WEB SECURITY conducted by Ms Tanusha Kamat, a senior member of a reputed software

company. It was held for the students of the computer Department via Google Meet under the guidance of Prof. Merwyn D'Souza and Prof. Siya Naik.

Web security is also known as “Cyber security”. It basically means protecting a website or web application by detecting, preventing and responding to cyber threats. Websites and web applications are just as prone to security breaches as physical homes, stores, and government locations. Unfortunately, cybercrime happens every day, and great web security measures are needed to protect websites and web applications from becoming compromised

The Webinar conducted gave us an insight on the threat landscape related to using the web. A number of key attacks were discussed which included but not permitted to Phishing, DDoS, and SQL Injections. Informative information was shared pertaining to the various ways an attack could be carried out via the aforementioned attacks and measures to prevent the same were also discussed. Additional information in the form of videos was also shared. A video demonstration on how an attacker would carry out an XSS (Cross-Site Scripting) Attack was also showed to us. Key aspects of Drive-by Downloads and Malicious iframes were also brought to our attention. We were also informed about the various types of malware such as keyloggers, screen capture malware and ransomware. How they can infect a system and preventive measures for the same were also discussed.



To conclude the Webinar Ms. Tanusha Kamat provided us with a video on the most devastating cyber attacks in recent times and some information on bug bounty hunting and virtual machines. The webinar was concluded by a question-answer session which was gladly

answered by Ms. Tanusha Kamat. The student coordinators were Astha, Stella, Nigel, Athena Meghana, Rea, Nirzar and Saish.

## FIELD VISITS

### Virtual Field Trip To Nepal for B.E. and T.E. Computer Students

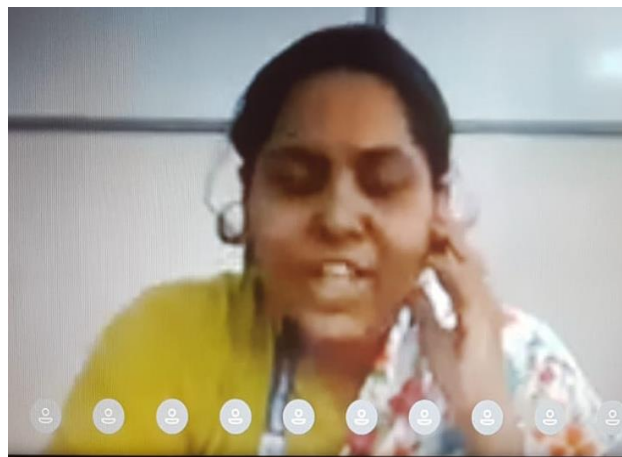
**Two- day Virtual Field Trip**  
(Industries located exclusively at NEPAL)  
*Live Demonstration*



**Shree Steels Pvt Ltd.**  
Bhairahawa, Nepal  
Time: 11:30 am to 12:30 pm  
Date: 05.11.2020

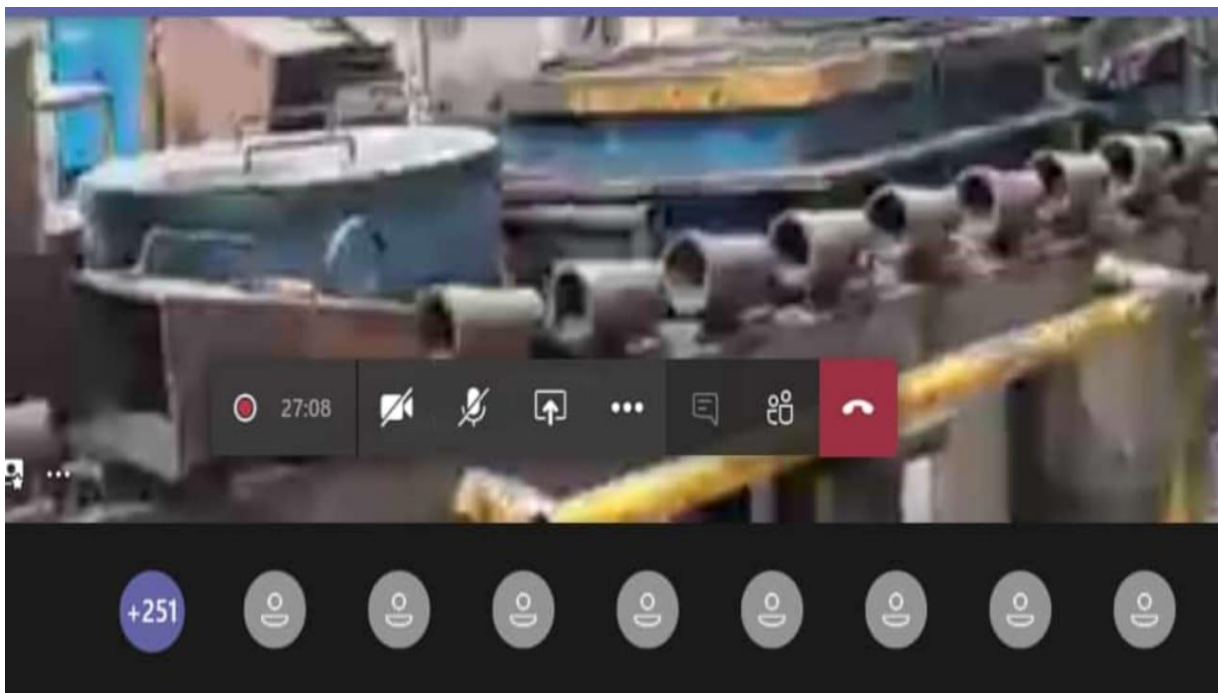


**Arghakhanchi Cement Pvt Ltd.**  
Bhairahawa, Nepal  
Time: 03:30 pm to 04:30 pm  
Date: 06.11.2020



The Department Of Computer Engineering participated in The **Virtual Field Trip To Nepal Steel Industries** named ” **Shree Steel India Pvt Ltd**” and “**Arghakhanchi Cement Pvt Ltd**”, Bhairahawa, Nepal for B.E. and T.E. Students of Computer Engineering On 5<sup>th</sup> and 6<sup>th</sup> November 2020 which was held Online On Microsoft Teams. The Virtual Field Trip started at 11.30 am and 3.30 pm sharp on day-1& day-2 respectively. The Resource Persons For The Virtual Field Trip were Dr Bharti Ganesh, Department Head Of Civil Engineering, Nitte

Meenakshi Institute Of Technology , Prof Bharti Prasad, Assistant Professor Of Civil Engineering, Nitte Meenakshi Institute Of Technology And Mr. Nikunj Todi introduced themselves and gave the students an insight about The Factory Layout and also The Manufacturing and Production Process Of Steel. He Introduced The Students To The Various Machinery Used In Production Of Steel. He Elaborated On The Profitability And The Growth Of Steel Industry. The Virtual Field Trip Was Concluded By A Vote Of Thanks Given By Mr. Mulidhar , Professor Of Civil Engineering, Nitte Meenakshi Institute Of Technology. The Virtual Field Trip was well appreciated by the students.



## PROJECT GRANT by GOA STATE INNOVATION CELL

Proposals were invited by Goa State innovation cell for seed funding of building prototypes. Presentations were held on 18<sup>th</sup> December 2020 and two projects were selected from department of computer engineering. Two projects “Smart agriculture using IoT” by Mr Amatya Katyayan and “GATE Automation system” by Dr. Vivek V. Jog will now receive funding of Rs. 20000/- each so that working prototype can be built and presented.



## STUDENTS PARTICIPATION IN WORKSHOPS/SEMINARS/ TECHNICAL EVENTS & TECHNICAL COMPETITIONS

Sr. No	Seminar/Workshop/ Technical Events/Conferences/ Training programmes etc.	Date (s)	Organised by	Number of Students	Level of Student (s)	Award/ Prize won	Faculty Coordinator	Name (s) of Students
1	Cloud Counselage Internship Program	Dec 2020	Cloud Counselage, Mumbai	16	BE, TE & SE	Internship Program	Maria Christina Barretto	Tanvi Shetye, Aryan Sawkar, Aloysius Carvalho, Leon Menezes, Amatya Katyayan, Asis Rodriques, Poonam Pai, Vedangi Bharve, Suvarna Sree, Christian Rodrigues, Sheena Mashelkar, Nausheen, Nigel Medonca, Nikhil Fernandes, Sejal Naik, Athena Rodrigues
2.	Smart India Hackathon 2020 Software edition	1st - 3rd August 2020	MHRD and AICTE	6	B.E	Finalist	Amrita Naik	Susmita Komarpant, Nikita Gawde, Saloni Naik, Sanisha Naik, Pranav Paranjape, Marsha De Sousa
3	NIC prototyping Competition	Nov 2020	NIC-National Innovation Contest'2020	05	B.E	Second Round, National level	Vivek V. Jog	Rohan Bukkam, Sahil Bukkam, Sairaj Sawant, Saisha Raikar, TejalNaik
4	Parivartan Karo Na Challenge 3:	July 2020	GDP Foundation	09	TE, SE	Winners	Maria Christina Barretto	Yash Diniz, Pranav Paranjape, Imamsab Bagwan, Krupashri Koli,

	Envisage New Forms of Operations							Pratibha Patil, Amatya Katyayan, Alston Dias, Rey Dias
5	Information Security	Sept 2020	C-Codes	100	SE TE BE	Seminar	Merwyn Dsouza and Siya Naik	---
6	Web Security	Oct-2020	C-Codes	100	SE TE BE	Seminar	Merwyn & Siya	---
7	Inspirus 2k20	Nov 20-21	C-Codes	128	Intercollegiate	Technical Event	Merwyn Dsouza & Amey Tilve	---

# FACULTY INITIATIVES

## FACULTY ACHIEVEMENTS

### Dr Gaurang Patkar (Invited as Keynote Speaker )

#### Keynote Speakers



Prof. Yilun Shang  
Northumbria University,  
UK

[Read More+](#)



Prof. Dariusz Jacek  
Jakobczak  
Koszalin University, Poland

[Read More+](#)



Prof. Dau-Chyrrh Chang  
Oriental Institute of Technology,  
Taiwan

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Prof. Manik Sharma  
DAV University,  
India

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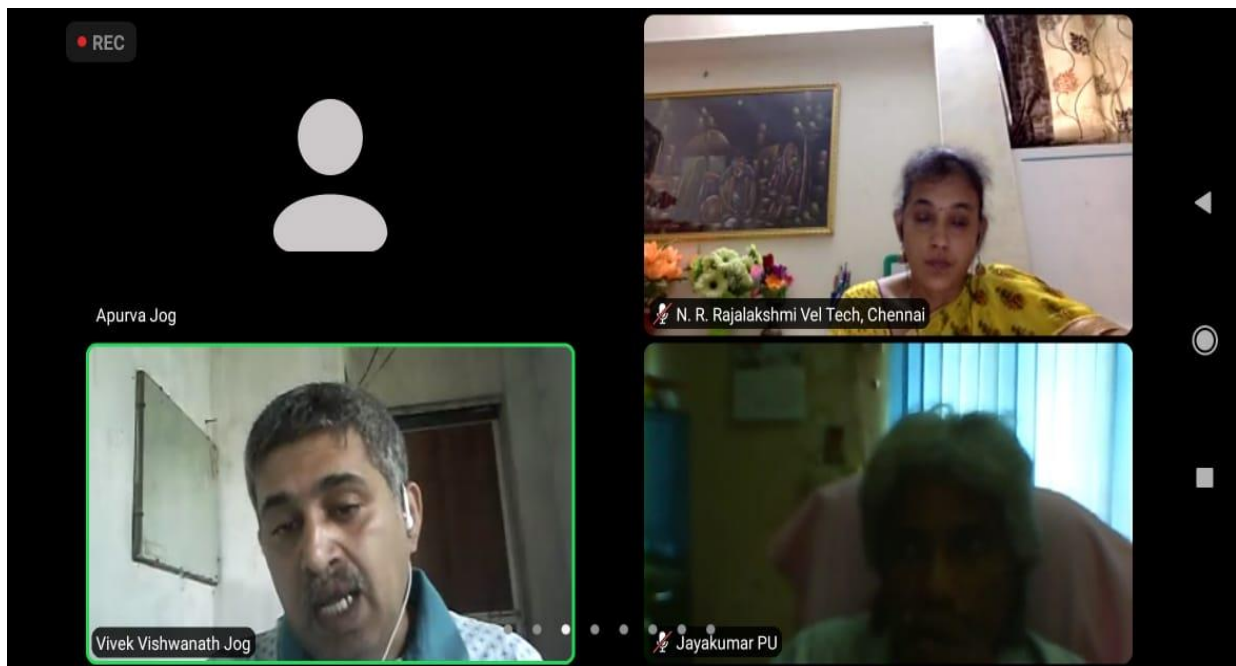
Prof. Gaurang S. Patkar  
Don Bosco College of Engineering,  
India

[Read More+](#)

Dr. Gaurang S Patkar was invited as Keynote Speaker for 2020 2nd International Conference on Computer, Communications and Mechatronics Engineering will be held in Xiamen, China during December 20-21, 2020. The goal of CCME2020 is to bring academics, experts, and students to share original research contributions on these topics such as computer, communications and mechatronics engineering. He spoke on his PhD thesis topic named “Automated Grading of Oil Palm Fruits using Soft Computing”. The keynote speech was scheduled on 21st December at 9.20 am (China Standard Time) via Voovmeeting platform. The session was attended by more than 100 participants followed by oral and poster presentation.

### **Dr Vivek Jog (Report on PhD Completion)**

Dr. Vivek V. Jog started research after he got admitted to PhD in computer science and engineering at VelTech University, Avadi, Chennai, in the year Jan 2014. It took one year to complete the mandatory course work after which problem statement was formulated as per the suggestion given by his research guide Dr. T. Senthil Murugan. Security to devices and data participating in IoT was the basic theme of the Research. Problem statement was aligned to cater the requirements of the IoT domain. Mathematical model was built as per the requirements and nature of data communication in IoT field. Research was completely focused on design and development of light weight and self-adaptive, Authentication and Authorization protocols that will secure data and devices from third party interference. Phase wise implementation was done to build proof of concept and was than compared with latest existing works published in IEEE journal. In the final stage, comparative analyses were done to prove the effectiveness of the proposed work. Entire research was broken down and published in four reputed journals indexed by SCOPUS and SCI categorically. Research work was successfully defended on 21st August 2020 (in online mode) and recommended for degree. Final degree was awarded in the convocation ceremony that was held



**PAPER/ JOURNAL PUBLICATIONS and PAPER PRESENTATION**

Sr No.	Author Name	Title of Paper	Details (journal name, volume, series, year)	National/ International
1	Amrita Naik	Lung Nodule Classification on Computed Tomography Images Using Deep Learning	Wireless Pers Commun (2020).	International
2	Amrita Naik	A combination of FractalNet and CNN for Lung Nodule Classification	2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), IIT Kharagpur, India, 2020, pp. 1-7	International
3.	Amrita Naik	Lung Tumor Classification Using CNN- and GLCM-Based Features	Fifth International Conference on Springer ICT for Sustainable Development 2020	International

**WORKSHOPS/SEMINARS/EXPERT TALKS ATTENDED and CONDUCTED**

Sr. No	Seminar/Workshop/ Short Term Courses/Conferences/ Training Programs etc.	Date	Duration	Organization	No. of Faculty Deputed/ Permitted	Name of the Faculty Participated
1	Recent Trends in Industry 4.0 Technologies	27/7/2020 – 31/7/2020	1 week	DBCE	15	All Computer Department Faculty
2	India – Bhutan Knowledge Summit	11/07/2020	1 day	DBCE	15	Coordinator: Prof. Amey S Tilve, Mithil Parab and Janhavi Naik
3	R & D Activity	5/12/20	1 hour	DBCE	15	Coordinator: Dr. Gaurang Patkar and Prof. Vivek Jog

4	Innovative teaching tools	03/10/2020	1 day	DBCE	15	Coordinator: Dr. Gaurang Patkar and Prof. Janhavi Naik
5	Tea Session	31/10/2020	1 day	DBCE	15	All Computer Department Faculty
6	National Innovation and startup policy	11/12/2020	1 day	DBCE	15	Coordinator: Dr. Gaurang Patkar and Prof. Janhavi Naik
7	Cyber Physical Systems (CPS) Design Techniques and Applications	August 2020	1 Week	Electronics & Communication Engineering Department, Kalasalingam Academy of Research & Education, Tamilnadu,	1	Prof Amey S Tilve
8	Effective use of ICT tools in Teaching Learning Process	June 2020.	1 week	Government Polytechnic in association with DTE Maharashtra & MSBTE Mumbai, Malvan	2	Merwyn Dsouza, Amey S Tilve, Manisha Fal Dessai, Janhavi Naik

## UPCOMING EVENTS

- #DREAMBIG Event
- Virtual Field Trip
- Online Webinar for Students