**APRIL 2021** 

# RHAPSODY

OASIS



The Oasis of life, a myth or reality?

**VOLUME 3** 

Fr. C. Rodrigues Institute of Technology, Vashi

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# Message



- Poppe 3

# PRINCIPAL'S MESSAGE

"Education must not simply teach work it must teach life."

The above saying holds absolutely true for the situation that we are in today. Despite all odds sometimes one needs to go on, more so, the present pandemic is the acid test for patience and trust for all humankind.

Despite all odds FCRIT, living up to its iconic image of discipline and integrity, delivered all academic and social events to the expectations of its students and alumni. In these pandemic months we at FCRIT, with the effort of our faculty and students were able to conduct some major events apart from the regular, which include ICNTE, alumni meet, NAAC visit, convocation ceremony, to name a few.

We also participated in a number of events where we have won prizes and made a name for ourselves, however, the epitome of our success is the alacrity and swiftness shown by the faculty and students in shifting to the online mode. This could have only happened due to the dedicated and resilient attitude of each and every faculty member of the institute.

So much so that I can proudly quote Wayne Dyer:

"If you change the way you look at things, the things you look at change."

Thank You!



Dr.S.M. Khot Principal, Fr. CRIT

# EDITOR'S MESSAGE

This is the second season of Corona and in the last one year, FCRIT has upheld its tradition of never giving up and carried out all the activities from ICNTE to the NAAC visit. We could not have been more positive in the last one year! Well, as you must have realized, no greater seasonal pun than this! Once again as I pick my pen to write I experience – 'de ja vou'. A year back around the same time, Covid had hit India and we had gone into a lockdown. The pandemic is devouring the human race since then, mother earth is traumatized and perhaps cannot endure the tyranny of man's lustful nature anymore. Nature has revolted, therefore. Its time for all of us to realize that beauty lies in the fact that we have not given up, we have fought like the most valiant warriors and have sustained in the face of all adversities. However, it is also the time to contain one's greed for materialism and incline towards the attainment of a more spiritual, socially conducive and holistic environment.

This edition of Rhapsody chronicles the activities of FCRIT, once again, however, this time we pray to uphold all of us during this calamity, as, we look for an "Oasis" within and endeavor to create one outside. In addition, we continue with our interview section which was introduced in the last issue along with all the regular features.

In this pandemic-stricken environment we attempt to bring you an Oasis of love, peace, and health.



Tuhina Bose Editor-in-Chief - Rhapsody



# **ICNTE 2021**

Agnel Charities' Fr. C. Rodrigues Institute of Technology, Vashi, under the patronage of Rev. Fr. S. Almeida (Managing Director), and leadership of Dr. S.M. Khot (Principal) and Dr. Mini Rajeev (Conference Chair) and Dr. Savitha Upadhya (Conference Co-Chair), organized its 4th Biennial International Conference on Nascent Technologies in Engineering (ICNTE 2021) through online mode on January 15–16, 2021.

ICNTE 2021 was organised with the objective of bringing together practitioners at the forefront of technologies, from different parts of the world, to share their research findings. Similar to ICNTE 2019, ICNTE 2017. and ICNTE 2015, this Conference was also technically co-sponsored by IEEE, had technical co-sponsorship from IEEE Industrial Application Society (IAS), and had technical support of IEI, CSI, and IETE. The major financial sponsor of this Conference was Campus Credential. The research papers were invited from a diverse variety of engineering fields segregated into 14 distinct Tracks. The Conference received a wide response of 283 papers from authors in India and abroad. The papers were reviewed by experts from eminent technical institutes, industries, and research centers like IIT, BARC, TCS, etc. Out of 283 received papers, 189 papers were selected for presenting at the Conference. Out of these 189 accepted papers, 157 papers were presented during the Conference and will be sent to the IEEE Xplore for publication. 20% of the selected papers will be recommended for probable publication in the journal of IEEE-IAS.

The Inaugural Function of ICNTE 2021 was graced by the august presence of Dr. Ajit Kumar Mohanti (Director, BARC) as the Chief Guest; Dr. Sheldon Williamson (Professor, Ontario Tech University, Canada) and Dr. Suryanarayan Doolla (Chairman, IEEE Bombay Section) as the Guests of Honour; and Keynote Speaker, Dr. Tomy Sebastian (Director, Motor Drive Systems, Halla Mechatronics, USA). After the welcome address by Dr. Khot, Rev. Fr. Almeida addressed the participants. He appreciated the efforts of the ICNTE Team, described the motive of the Conference, and appealed to maintain patience and belief in God during the COVID pandemic situation.

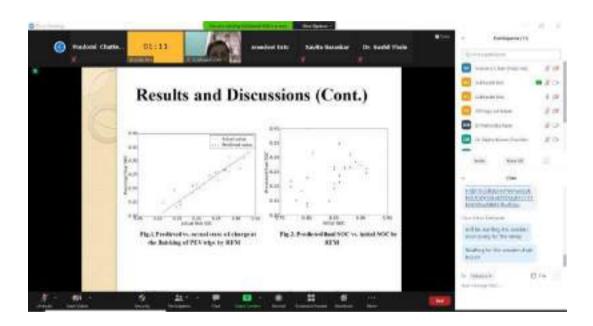
Dr. Doolla, on behalf of the IEEE Bombay Section, appreciated the quality that ICNTE has been maintaining from its inception. Dr. Williamson acknowledged that the ICNTE is at par with the Conferences organized by the Premier Institutes and Professional Societies across the world. He also emphasized that the interdisciplinary participation of the researchers is necessary to achieve Industry 4.0 goals of technological advancement and the ICNTE strives to do the same. Dr. Mohanti, in his speech, highlighted that humans need to progress in technology in harmony with nature. He encouraged the young researchers to focus on emerging areas such as energy-efficient manufacturing with minimal use of natural resources, harnessing nuclear and renewable energy, new material development, machinery diagnostics, faster and safer transportation including autonomous vehicles, artificial intelligence, machine learning, robotics, healthcare systems and services, online learning systems, augmented reality, etc. He insisted on strengthening cybersecurity, as the use of online services has increased multifold during the COVID pandemic situation.

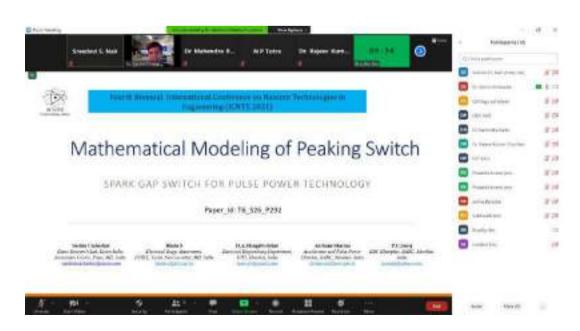
Mr. John Thomas (Director, Engineering, Google Cloud, USA) presided as the Chief Guest at the Valedictory Function of the Conference. Mr. M.B. Dagaonkar (Council Member, IEI, Kolkata) and Mr. K.K. Varkhedkar (Chairman, IEI, Belapur Local Center) were also invited as the Esteemed Guests for the Valedictory Function. Mr. Thomas elaborated that it is always better to learn from the experience of the experts, and the Conference is a place where one can find such experts. He also insisted on practicing what we learn and building our own experiences. Dr. Dagaonkar briefed about various activities of IEI. Mr. Varkhedkar explained the procedure followed for scrutinising the applications received for the IEI-FCRIT Excellence award. This award was given on regional and national levels during the valedictory function. Different categories for the award were Research Excellence: Students (UG, PG, and Ph.D.), Faculty, Industry Person; Academic Excellence: Students (UG), Faculty, Head of the Department, Principal, Institute; Industry Excellence; and Start-up Excellence.

The paper presentation competition was conducted across fourteen different tracks with domains for each department. Each paper was allowed to be presented for a maximum of 10 minutes followed by a questioning round from the judge of each track.

### Track events' photographs







From the 157 presented papers, winners were selected for each track moderated by a panel of judges. The 14 winners were as follows:

Paper ID	Paper title	Author name
T1_S1_P583	Design and Fabrication of a 3D scanning system using Optical Computed Tomography and Photogrammetry	Harshit Singh
T2_S5_P622	Effects of Volume and Neck Length of Helmholtz Resonator on Thermoacoustic Instability	Benson Thomas Paul
T3_S9_P466	Automated Seed Sowing Robot	Joel Thomas
T4_S13_P37 2	Analytical Design Optimization of Axial Flux SPIM for Energy Efficient Ceiling Fan Using GA	Utkarsh Sharma
T6_S23_P66 0	A Novel PR Controller with Improved Performance for SinglePhase UPS Inverter	Dr. Prajof P
T6_S26_P29 2 (Given in T5_category)	Mathematical Modeling of Peaking Switch	Dr. Sachin Umbarkar
T7_S28_P51 6	Machine Learning-based Image Processing for Iron Ore Pellet Size Analysis	Arya Jyoti Deo
T8_S30_P31 3	Alignment of Fire Control Radar with Gun in Non-Line Of Sight	Gurmeet Singh Mallan
T9_S32_P40 4	Design of a Low-Noise, Fast Set-up and Low-Voltage Low-Dropout Regulator Featuring 230mA Load Current Range	Darshil Patel
T10_S35_P6 34	Wheel Graph-based approach for embedding Location-aware Energy Efficient Virtual Network using Nelder Mead method in IoT Data Manipulation	Thiraviaselvi G

Paper ID	Paper ID	Author name
T11_S42_P6 80	Enhancing Deep Fingerprinting Attack On Tor Network Using Lottery Ticket Hypothesis	Vaibhav Mishra
T12_S46_P6 24	Lane Following using Image Processing	Suraj Sanjay Mahangade
T13_S48_P5 31	Enhanced Pyrometric device with Long Range for mass screening based on MLX90614	Dishant Shah
T14_S53_P4 81	Designing Of Distributed Bragg Reflector (DBR) by Transfer Matrix Method	Dr.Madhavi Thakurdesai,

During the ICNTE Valedictory function, the IEI BLC-FCRIT EXCELLENCE AWARDS 2021 was conducted. The IEI BLC-FCRIT Excellence Awards has various categories like Industry Excellence (IE), Academic Excellence (AE), and Research Excellence (RE) for teaching faculty as well as students. Among the students' awards, there are sub-categories for undergraduate, postgraduate, and Ph.D. students. In this edition, a new sub-category "Regional" was introduced to encourage participation from the local Institutes.

This year, a hundred proposals were received in various categories. Proposals came from premier Institutes like IIT Kanpur, IIT Bombay, IIT Guwahati, IIT Roorkee, NIT Rourkela, NIT Raipur, VJTI Mumbai. Approximately 50% of the applications came from outside Maharashtra. Judges panels with diverse and vast experience evaluated the proposals. Some of the Judges were senior Professors from academia, research Institutes, while some were from foreign Universities.

Dr. Mohan Dagaonkar Senior Member (IEI Kolkata) spoke on this occasion about the golden history of IEI and the vision of IEI. Mr. Keshav Varkhedkar, Hon. Chairman IEI Belapur Local Centre, elaborated the activities of BLC and laid out the details of the excellence awards to the audience.

The winner in the RE (Faculty-National) category Prof. J. Ramkumar said that the awards like this are an encouragement for the researcher and every such effort to appreciate motivates them to span greater heights. The winner in AE (Faculty-National) category Prof. Shripad Mahulikar expressed the need for collaboration to raise the quality of teaching and research.

The Conference was highly appreciated by the Participants, Session Chairs, and Dignitaries for its smooth execution and notable standard. The thrust of the ICNTE 2021 was not on the quantity but on the quality of the research work, which was very well seen through the presentations made at the Conference. The Institute is hopeful that the information disseminated through the technical interactions during ICNTE 2021, will expose the newcomers and knowledge seekers in various engineering fields to the advancements in the latest technologies.







- Anushka Amte and Bryan Francis. Computer, Semester 4.





# COMPUTER ENGINEERING

# CSI 2021

"The mind is not a vessel to be filled, but a fire to be kindled"

- Plutarch

The Department of Computer Engineering firmly believes in the holistic development of its students. To hone the skills of the students and facilitate them with a window to the corporate world the Department of Computer Engineering in concomitance with CSI Chapter of FCRIT Vashi organised several events for the students.

# CRYPTEX 2020

On 20th and 24th August 2020, the CSI Chapter at FCRIT Vashi organized a 2 day workshop for the second year engineering students, in 4 different domains: Cybersecurity, Python Programming, Computer Vision and App Development. The instructors of the workshop were the third-year computer engineering students who had experience in the mentored domain.

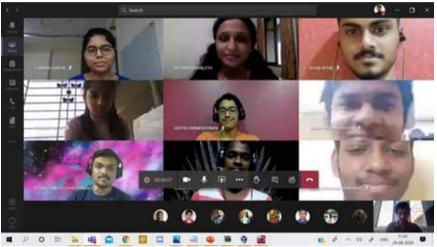
# **Cybersecurity Workshop:**

The workshop was conducted by Jerlin John, Shreya Chawan and Battina Babykutty on Microsoft Teams platform. The concept of cybersecurity was explained from a fundamental level with hands-on practice.

The students were taught Linux commands and Bash Scripting which are prerequisites for exploring the Parrot Operating system, which is a platform to learn and perform commands and concepts of cybersecurity in depth. The learners were also introduced to topics like hacking and its classification into white hat, black hat and grey hat; vulnerability assessment.

-lppe-14





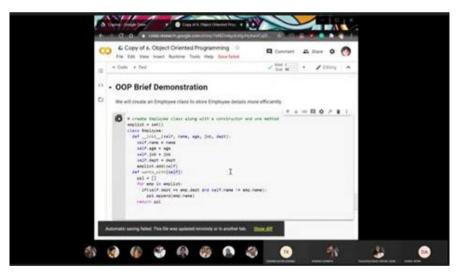
Further, Shreya Chawan conducted the session focusing mainly on Computer Networking, Subnetting, NAT and IPv6. The computer networking sector opens the door for various opportunities, it is estimated that the compound annual growth rate of this sector would be 38.3% by 2023 and the revenue growth generated is 0.77% yearly.

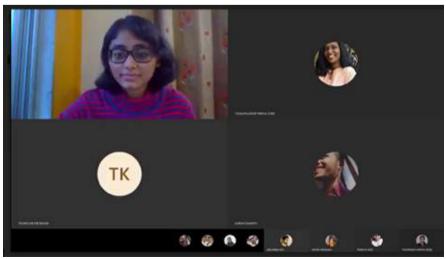
The second day sessions were conducted by Battina Babykutty, the topics covered included vulnerabilities, social engineering, hacking tools, data carving, steganography and cryptography which are the basic requirements to build a base for learning cybersecurity in depth. Trending investment topics such as Bitcoin and Dogecoin are built on the algorithms of cryptography, even in the field of blockchain the algorithms of cryptography are used. The students were then introduced to execution of human based and computer-based hacking, changing mac address and commands to enable toggling between two addresses using ethernet, data carving or file carving to extract the deleted files from one's device. The skills developed in the workshop were practiced on hack the box challenges.

## **Python Programming Workshop:**

Python is claimed to be the fastest growing programming language, it covers a wide sector of applications including web development, game development, data analysis, Machine learning, Deep Learning, Robotics, Graphics User Interface to name a few. It is easier to learn a language which opens up the choice of development in various fields rather than learning different languages for a single application. Python is currently even taught to the secondary students at basic level in various countries.

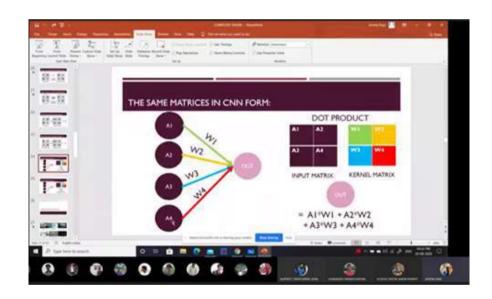
The workshop was conducted by Afrin Dange and Sanmith Kurian on MS Teams platform. The objective of the workshop was to introduce python programming, learning the in-built data structures and introduction to object-oriented programming. The workshop introduced the programming language a semester prior to students, making them prepared and enthusiastic about the subject.





## **Computer Vision:**

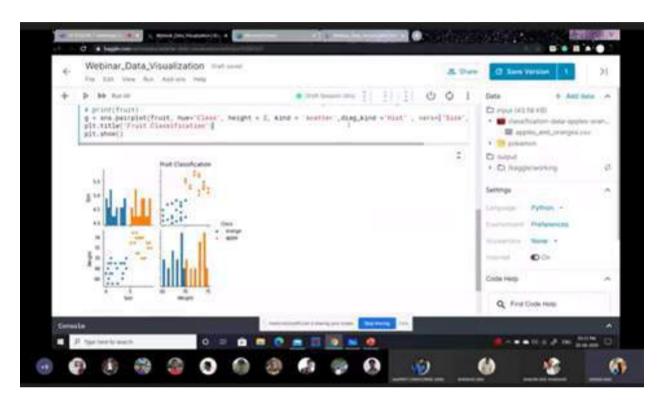
The AI software market grows about 54% per year, it is also said that by 2035 this field will contribute about \$957 billion to India's present gross value. The current level of knowledge of Machine Learning and AI is still considered to be fundamental and an emerging domain, many students are enthusiastic to develop efficient algorithms and expand the usability of this field to different sectors. Computer Vision is a branch of Artificial Intelligence which studies the techniques to develop the use of computers to process and understand the content of images and videos. Currently the concept of computer vision is used in face detection, QR Code generation and reading, classification of different images in categories, OCRs. It is necessary for students to be aware of the technical advancement in today's date and how they can contribute towards it.

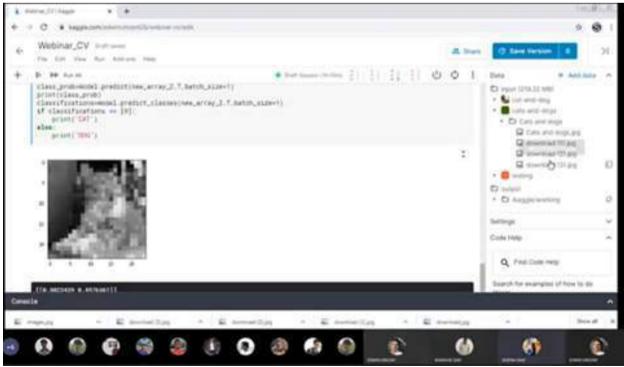


The Computer Vision workshop was conducted by Serana Raju on MS Teams platform with the primary goal of the workshop to introduce Artificial Intelligence, Machine Learning, Deep Learning and Computer Vision to the students.

The workshop began with the instructor giving a brief introduction of the concepts to be covered. The students were provided with a scientific and application-based approach that helped them strengthen their foundations. A real time approach to various mathematical concepts was also provided.

The students acquired in-depth knowledge about the theory behind computer vision. By the end of the workshop, the participants were able to successfully build a classification model and gained insights on the workings of Convolutional Neural Networks.





# **Hybrid App Development with Flutter:**

Right from communication to booking appointments to entertainment, we spend our whole day using various applications. In today's date, it can be considered that a person must understand ways to access apps efficiently and effectively. The first application to be developed was the "Snake Game" by Nokia in 1997. Technology is advancing rapidly and so are the tools required to build it. Companies need to maintain their presence on the internet either through web, android or ios apps to provide content to the users, increase revenue and market presence.





The App development with flutter workshop was conducted by Rachit Pulhani, Shivam Mehta, Shriram Athreya, Nitish Kadu with the objective to introduce application development, IDEs, setting up emulator, learn to set up flutter and working with different components used to build flutter applications. A complete in-depth overview of the app architecture was provided. The basic Flutter components were explained by building a basic calculator application. The instructors also taught the debugging process on an Android emulator and how to effectively use the official documentation as well as how to search for solutions, essential concepts such as navigation, basic state management were explained while creating the application, various widgets and layouts provided by the Material Design. The students were encouraged to code along.

The Cryptex Workshop provided a head start for budding programmers and developers. It couldn't have been successful without efforts taken by the instructors to make the concepts easy and interesting for the participating students.

-Aaditee Deepak Pate Computer Sem 4.

### **ACFSS 2020**

The CSI chapter of FCRIT, Vashi keeping in theme with its goal to keep the students updated with the latest technological and industrial trends organized the annual department seminar for the Second year (sem III) students of the Computer department on the 16th of September 2020. In the midst of the global pandemic the event was organised and conducted online on Microsoft Teams.

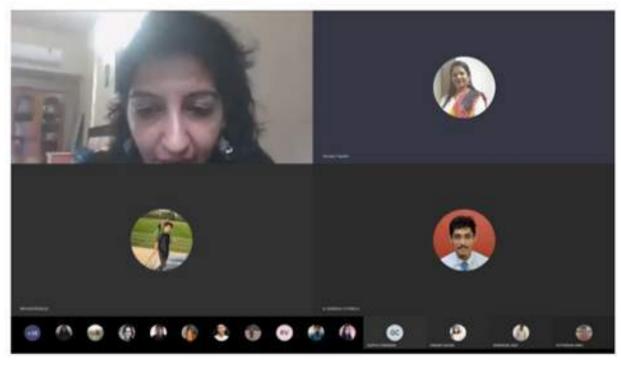
The session was split into two parts where the students were addressed by Dr. Charu Malhotra .She spoke on Convergence of Emerging technologies, opportunities, challenges and the government of industry 4.0. This was followed by Mr. Vijay Kumar of Swan technologies who spoke on environmental sustainability and awareness.



In the first half of the session, Dr. Malhotra walked the students through various emerging technologies and their real world applications implemented by the government. of India. The session focused on the rise,impacts and challenges posed by Industrial Revolution 4.0; its various facets such as the rise of self-driven machines, the inclusion of IOT in big data, cloud and cognitive computing and many more supplemented by a plethora of real world applications

The second half of the session, helmed by Mr.Kumar, emphasized that environmental sustainability is the need of the hour in order to protect the environment and how computer science and various industries are playing a major role ESD for the future. The key takeaway from the session was how sustainability can be achieved through technical advancements and how it is necessary in order to be more responsible and ensure a safe future.





# **Clinical Trials- Planning, Governance and Conduct**

The CSI chapter of FCRIT, Vashi on the 14th of August,2020 organized a webinar for the students and faculty of our college. The webinar titled Clinical Trials- Planning, Governance and Conduct focused on navigating through the new normal created due to the pandemic.

Ms. Deepti Goel, project management professional and a pharmacologist, addressed the students and faculties and enlightened us with the various clinical trials being conducted on the nCovid-19 virus. Her extensive expertise in clinical research and site management provided us with valuable insight on how the medical field is fighting the pandemic and the different technologies being developed to combat it.

-Anushka Amte Sem 4



# INFORMATION TECHNOLOGY

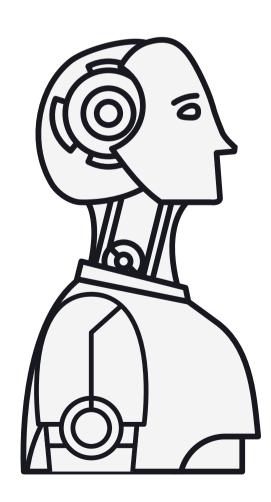
# About the Department

"Hope is being able to see that there is light despite all the darkness."

-Desmond Tutu

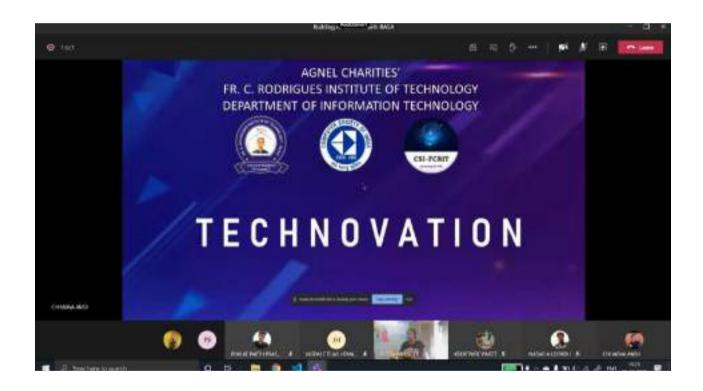
When the world took an uncertain pause last year, the only need that surfaced was a ray of hope, like an oasis in a scanty desert. With the pandemic exhaling the stifling air of confusion and despair, the earth craved with its might for a better tomorrow. No one could have ever imagined the extent of global damage that a mere virus could make on the human race. As we watch a dystopian reality unfold before us, the one trait that we can hold in good stead, both as individuals and as a society, is the power of hope. This grave threat reinforced our faith in prayer, and belief in togetherness and made us believe that anything is possible if we pin our hopes on harmony and compassion.

And therefore, with a spark to rekindle faith and conviction students. Fr. C. Rodrigues Institute of Technology, Vashi under **CSI** (Computer Society of India) 2021 conducted various online IT related programming seminars. contests. quizzes, workshops to introduce the students to the latest technologies and trends in the field of Computer Engineering and Information Technology.



# CSI TECHNOVATION 2020

Spread across 3 days, Technovation 2020 was a successful technical event that comprised of workshops and quizzes on some of the prominent domains of Information technology. It also included interactions with some of the well-known IT industry luminaries whose insights were very valuable and helped the students to surpass their technical acumen.



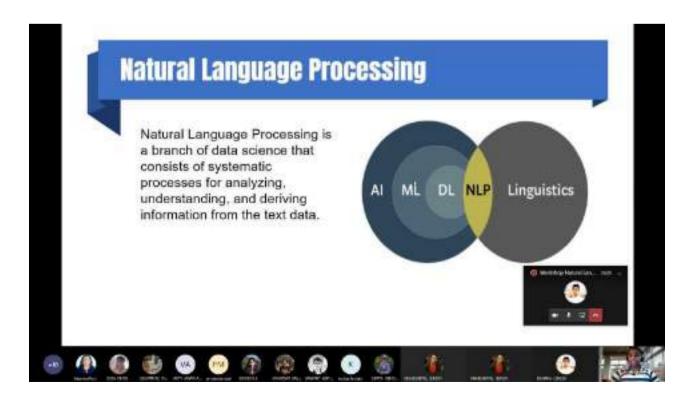
# Day 1

On the 6th of October, 2020, 3 workshops were held on relevant topics like Machine Learning, Game Development, and Programming & AWS 101. All events were held from 3.30 to 5.30 pm and were conducted by the students of semester 5. Every workshop included hands-on experience with the latest tools available and showcased excellent teamwork and performance of the students.



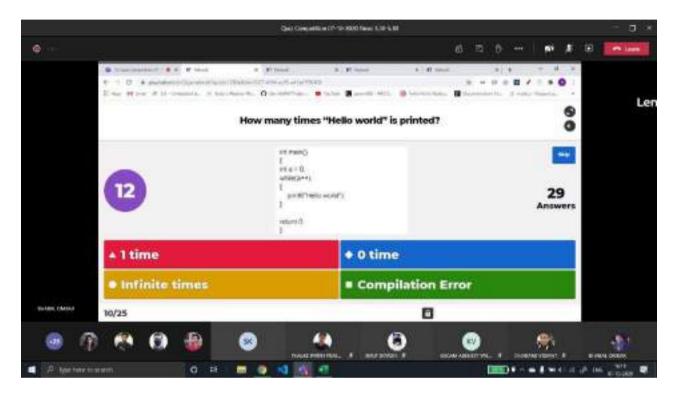
# Day 2

On the 7th of October, 2020, various workshops on topics like 'React' and 'Natural Language Processing' were conducted. Adding to this, 2 contests were also held which was very refreshing for the students and they actively participated in them. Even though these events took place online, it didn't affect the enthusiasm of the students to engage in them with lively spirit and verve.



# Day 3

On the final day, the 8th of October, 2020, the finale of Technovation saw a blend of workshops and contests. Exceptional concepts for the implementation of these events were remarkably executed. Events like 'Escape Room' and 'Complete the code' engrossed the students and helped them recognize their coding capabilities.



On that account, with the unyielding and staunch support of the faculty of the IT department, CSI-Technovation 2020 was a raging success. The impeccable harmony and spot-on planning of the volunteers were highly appreciated.

# CSI- AITSS 2020

On the 10th of October 2020, the CSI SEMINAR AITSS (Association of Information Technology Students Symposium) 2020 was conducted. Due to the Covid-19 pandemic, the event was held on the online platform MS teams. The inaugural ceremony commenced at 9 A.M with the lighting of the lamp accompanied by a prayer song. The CSI President addressed the meeting after which the students and staff were welcomed by Prof. Dhanashree Hadsul (I/c HOD IT Dept). Thereafter, the departmental magazine, REJIG-adopting a new normal, was released. The winners of the summer project and contest 2020 were announced and felicitated.

### The winners were:

### First prize:

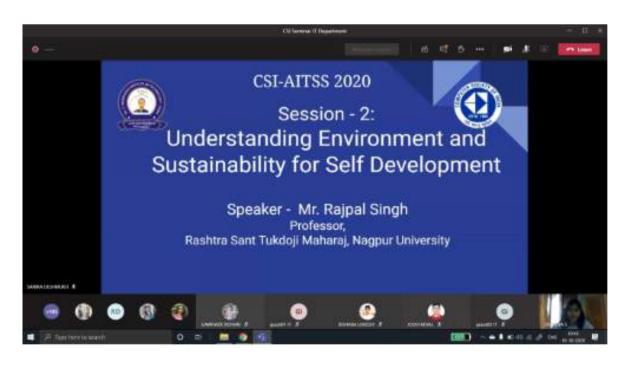
 Dion Pinto, Archit Bhonsle, Omkar Bhabal, Arpit Bhat and Ved Patil for Sup-Socialize and Collaborate.

### Second Prize:

 Abdul Azim, Ansh Chhadva, Gladina Raymond and Abhishek Gupta for Sign Language Translator.

### Third Prize:

 Rohan Gawhade, Bohara Lokesh Ramdev, Prithviraj Patil and Srividya Subramaniam for UnFakelt.



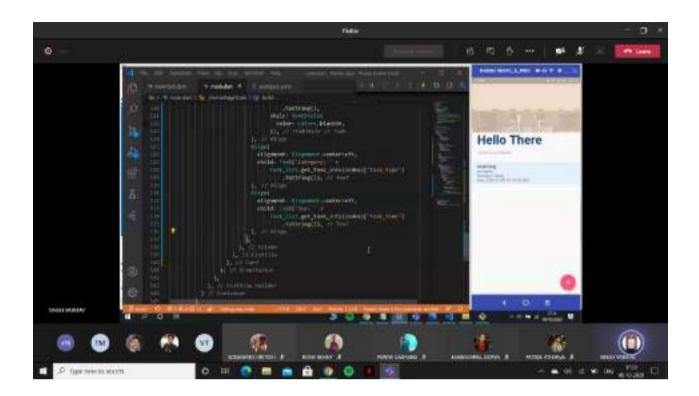
Following the felicitation of the winners, a vote of thanks was offered by Prof. Rupali Deshmukh (Convener of CSI-IT) which brought an end to the inaugural ceremony.

Soon after a short break, the first session of the event was set about with a seminar on "Engineering to S/w Engineering- A Bridge", conducted by Mr. Sameer Gharpurey (Agile Coach and Consultant, Altius Software Pvt Ltd, Navi Mumbai). In this seminar, students were given an insight as to what is software engineering and how to achieve it and how to develop themselves while working outside in the industry, and tips to gain their first job.

This was followed by the second session by Mr. Rajpal Singh (Professor at Nagpur University) on "Understanding Environment and Sustainability for Self-Development". Students were able to understand the types and components of the environment and they were made aware of the crisis faced by the environment and how to derive the hidden message from those crises. With this seminar, a basic understanding of the types and components of the environment along with an insight as to its degradation was perceived by the students.



All in all, these sessions were very helpful for the students as it enlightened the various aspects of the environment and also highlighted the various components of software engineering. The detailed planning and zealous efforts of the volunteers were highly appreciated. With the strong support and guidance of the staff of the IT department, the AITSS event concluded successfully.



In addition to conducting some spectacular events, the pandemic couldn't stop the students to gain noteworthy recognition which brought to light their exceptional holistic development. Varad More and Prathamesh Nerkar from the final year bagged the first prize in e-yantra Robotics Competition (eYRC) which was organized by IIT Bombay and Prathamesh Patil came up with an outstanding Automatic Hand Sanitizer Dispenser which received an excellent commendation. All this was only possible with the undying spirit and enthusiasm showcased by the students and the staff of the IT department.



# ELECTRONICS & TELECOMMUNICATION ENGINEERING



# Techie Bytes

"Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning."

-Albert Finstein

That is true considering the current social climate. The world is changing every day with a hope for a better tomorrow. To keep up the spirits of the students, with the proper guidance and assistance of the HOD of the EXTC department - Dr. Milind Shah and Teacher In-charge - Mrs. Sneha Revankar, the students of the IETE-ETSA club conducted Techie Bytes 2020-21. The events were as follows:

Phase 1: Monday, 5th October, 2020

Time - 1.30 pm

# Event 1 – Equivocal

"There is no greater impediment to the advancement of knowledge than the ambiguity of words."

-Thomas Reid

This quote describes the event in the best manner. The event consisted of four rounds. Each round tested the awareness and consciousness of the participants in the present world. A team consisted of two members, one from third year and another from second year. During the first round the teams were shown a video and a quiz was held based on the video shown to the participants.

Round two came with a twist. During this each member had a task and also had to communicate effectively with their partner. One of the team members had to solve the crossword while another member provided the clues for solving the same. The teams that advanced through round two went to round three which was one of the enthralling events to look back to. Round three was an extempore round where the participants were given a topic to speak upon.

To end the event on a high note, Round four was a technical debate where the participants thrived till the end and went head on to prove their point and left no stone unturned. The debate left a lasting impression on everyone's mind who viewed and engaged during this round.

# Event 2 - Junkyard

"Hope lies in dreams, in imagination, and in the courage of those who dare to make dreams into reality."

- Jonas Salk

The teams were requested to make items from complete waste and junk materials. Each team consisted of two players. The event had two rounds where both players had to participate alternatingly. The main objective was to create the most practical item for use from the most neglected materials available with them. The teams had to present their items to the judges and provide an explanation for the same. The team members came up with many innovative ideas and bought them into reality with their creative skills.

Round 1 was focused on making decorative items while the second round expected the participants to make useful objects or gadgets in a limited time phase.

The team of Meenal Tiwari and Akansha Patnaik won the competition and Celine Fernandes along with Monish Meher won the runner-up prize.

# Entry for round - 1



Photo Entry by
Celine Fernandes &
Monish Meher (Sem 4)

Photo entry by **Suraj Suresh and Vaishnavi Wagh (Sem 6)** 



# Event 3 - Brain Brawl

"It is not enough to do your best: you must know what to do, and then do your best."

- W.Edwards Deming

This event was meant to test the skills and intelligence of participants in different aspects of engineering such as coding and simulation by making them use various software such as Octave, LogiSIM ,etc.

The event consisted of three rounds:

Round 1 - Quiz Based stage

Round 2 - Software and simulation implementation skills round

Round 3 – Fastest finger Mentimeter Quiz





### Event 4 - Codigo

Simplicity is a prerequisite for reliability in a code, but writing the same in the least time is a challenge. But, when the code-masters come out to battle, then that's a sight to behold. The participants were requested to compete with each other with a problem statement given to them by the host and a stipulated time to complete. Round one was a basic quiz round based on the knowledge of programming language i.e., C and python. Rounds two and three were pure coding rounds conducted on the online platform of Hackerrank.

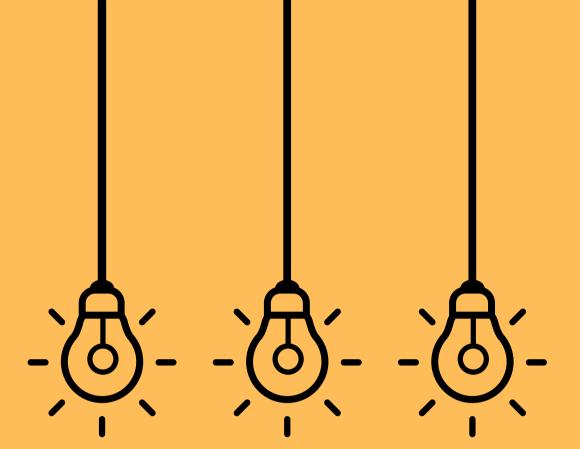
### Event 5 - Virtual Treasure hunt

For all those who love to scratch their heads behind puzzles and make up the fanbase of Sherlock Holmes, this event was just for them. The participants were requested to form a group of four to be eligible to participate. During the first round, the teams were given a series of PDFs which were password protected with just the first PDFs being unlocked for all. The answer to the previous question acts as the password for the next PDF. The teams that complete round one in minimum time proceed to the next round. During the second round, the teams were given a form that takes to the next question after a correct answer for the current question.

In the end, the main aim was to give everyone a chance and space for them to flourish and be themselves. From this, we all were able to conclude that,

"Hope is the companion of power, and mother of success; for who so hopes strongly has within him the gift of miracles."

- Samuel Smiles



# **ELECTRICAL ENGINEERING**

6

The various committees under the Electrical Department witnessed an increased vigour and enthusiasm to make the most of the time made possible by the pandemic. All the students under these committees worked hard to conduct the events as:

### **IEEE**

IEEE conducted a total of five events, each one of them highlighting an entirely different aspect of the already vast Electrical and Electronics industry.

First one of them being "Industry 4.0" hosted during a span of 2 days on 8th and 16th of October 2020 on Microsoft Teams platform. The speaker for the first day was Mr. Nilesh Sawant, from Siemens who spoke to the audience on the contribution of his company in the current automation and control systems in the market, and about measurement technologies and process instrumentation sensors.

Mr. Durgesh Mishra, on the next day, spoke about Industry 4.0, and how the present industry scenario is changing to incorporate emerging technologies. He further illustrated how digitisation has been achieved in the discrete and process industries. This led to the conclusion that digitisation of industries is the answer to many problems that are left untackled. Student coordinators Akhilesh Mendon and Shruti Malpure ensured smooth functioning of the event under the guidance of event Coordinator Mrs. Bindu R.

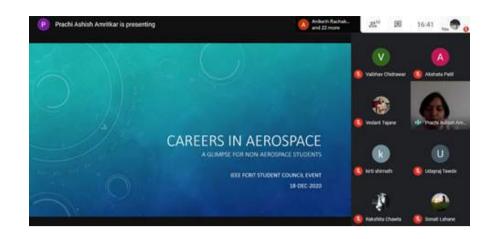


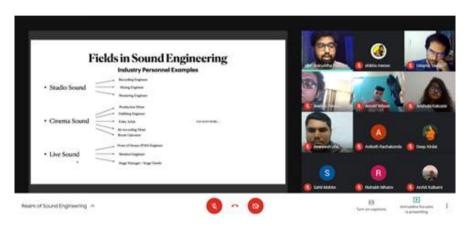


On 24th of October 2020, Dr. Solanki spoke on a webinar titled "A new look at energy and sustainability". Many relevant topics in the context of ecology and industry were discussed, such as the causes of concern and ways to achieve independence in the energy production sector. He also shed light on his own efforts at popularising his ideologies. The discussion also touched upon various topics such as the role of youth in achieving sustainability, striking a balance between necessity & greed when it comes to technological progress and the most important question of forfeiting electricity versus grid connected solar installations.

Another event was the "Green Challenge"- an activity conducted over a time span of one month, from 4th of November to 5th of December, 2020. This event was sponsored by Techno Associates Pvt. Ltd. and had three categories: Technical, Literature and Art. The separate categories had their respective events and students who contributed towards the environment by measure like tree plantations were given special recognition prizes.







On 18th of December, a webinar on "Career Opportunities in the aerospace industry" was conducted, with MRs. Prachi Ashish Amritakar as the speaker. She spoke about the working of the industry, and also touched upon the different aspects of an aeroplane. She later stressed the fact that the industry is rather complex, and many different engineering fields are intertwined in an interdependent mechanism. Hence, making the industry work is a complex task of teamwork among people from different backgrounds. She also touched upon the prerequisite courses and the universities from where people can take these courses in order to enter into the aerospace industry.

Mr. Aniruddh Purushe, an experienced personality in the field of Sound Engineering, having worked in theatre acts such as those of Disney's Aladdin, TV shows such as MTV Unplugged and The Stage and popular music bands such as ALIF, TAPAS and singers such as Abhijeet Srivastava was the speaker at another event titled "The Realm Of Sound Engineering" on 23rd of December. He explained the many aspects of Sound engineering in simple terms, including the art of foley where engineers reproduce sounds which are hard to capture. This event sparked interest in the vast field of sound engineering.

### **EESA**

With the constraints of the pandemic being a constant companion throughout the year, the events conducted by EESA were conducted all on the virtual platform aiming to keep the students just as engaged as every other year.

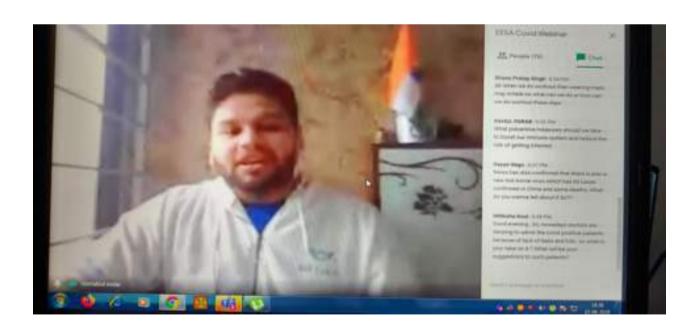
On August 2, 2020, a Yoga session was conducted by Mrs. Sheetal Malhotra and was attended by over fifty participants. She imparted her in depth knowledge about the meaning and importance of yoga in the day to day lives of people making the session enriching for the students and the teachers alike as she also shared various historical facts about the poses.

Following this event, on August 15, 2020, a Q and A session, 'Living with Covid' was conducted with Dr Ketan Pakale about the misconceptions regarding Covid 19 which was then seeing its peak. It included several role playing tactics and a deep insight into his personal experiences with the novel coronavirus pandemic.

A month long course on MS Excel was conducted with Mr Cedric Dsouza. It was a video based learning experience for the students and included questions and MCQs to further enhance the understanding.





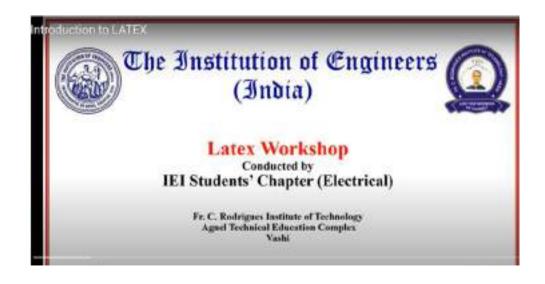


### IEI

On 13th June 2020, IEI council conducted a webinar on Holistic power management, speaker being Dr. B.E. Kushare, Certified Energy Auditor and power quality consultant. He spoke about the importance of installing appliances that are rated 5 star by BEE, and using LED lamps for lighting purposes. Elaborating on lighting, he illustrated the importance of using lux meters to set the appropriate lux levels in the area under consideration.

A webinar was conducted on industrial automation for final year students on Industrial automation on 7th August 2020, speaker being Alister D'Silva, director of Absolute Motion Pvt. Ltd. He demonstrated the current industrial automation softwares by running a simulation of a conveyor software on a Delta manufactured Programmable Logic Controller. HE explained step by step the working of the software, and this proved to be a direct experience into the workings of the industry.

A workshop on report writing using the LaTex software was conducted on December 5, 6 and 7, 2020. The event was conducted in sessions of two hours each over the three days. The students were given a variety of assignments after each session to consolidate the lessons Doubt clearing sessions were also held after each session to further improve their understanding.



A poster presentation competition was also held under the IEI student chapter for students of the third semester, on December 18, 2020. A template poster was circulated, onto which the students added the details of their mini projects. The competition witnessed 15 entries, and the poster with the title "Light control using proximity sensor" bagged the winning prize. The poster titled "Night Vision Camera" bagged the second prize.

#### **Expert Lectures:**

Sr no.	Date	Speaker	Title
1	31/10/2020	Prathamesh Mhamane Assistant Manager, Design Department, Godrej and Boyce Mfg. Co. Ltd. Vikhroli, Mumbai	EHV Substations
2	31/10/2020	Prathamesh Mhamane Assistant Manager, Design Department, Godrej and Boyce Mfg. Co. Ltd. Vikhroli, Mumbai	Preparation for handling engineering projects
3	13/08/2020	Sangeeta Godbole Assistant Director News, Regional News Unit, DDK, Mumbai	Motivational Talk
4	17/09/2020	Saumya George Assistant Manager, Procurement Division, Bajaj Electrical, Mumbai	Introduction to Procurement
5	21/10/2020	Prathamesh Joglekar VLSI Design Engineer, Apple USA	Motivational Talk (Journey from FCRIT to Apple USA)
6	27/10/2020	Ramchandra Bhosale Member Teaching Staff, IIT Bombay	Closed loop BLDC drive
7	07/11/2020	Mahendri Ramesh	At CrossRoads
8	13/11/2020	Shekhar Prasad Electrical Design Engineer, Worley Engineering India Ltd., Mumbai	Campus to corporate transition
9	13/11/2020	Shubham Pandita GET Electrical, Stelmec Ltd., Mumbai	EPC Business
10	13/11/2020	Rahul Deo ManagerElectrical,	Electrical Fire Prevention and Safety

### **Vidyut**

Three different topics were covered under the annual Vidyut seminars. Second year students attended a session titled "Oral and Written communication" by Dr. N. Aparna Rao. She explained the importance of effective Oral and written communication and discussed various barriers to communication. A major cause of stress, overcoming lack of confidence in facing large crowds was also touched upon. She explained why active listening is important for expressing and why people are comfortable with their mother tongue but find it difficult to express in some other language.





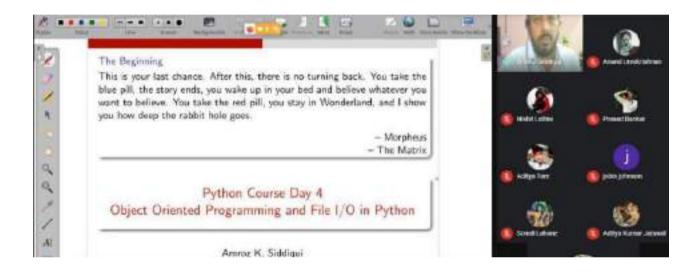
Third year students were informed about "Decentralised Renewable Energy powered Small scale Enterprises for reviving Rural Communities" by Mr. Nitin Akhade. He discussed various R&D projects using Renewable energy implemented successfully in the rural areas such as Solar based Microgrids established and run with the help of rural communities which help them in improving their livelihoods with less cost. Such case studies demonstrate progress with sustainable development.

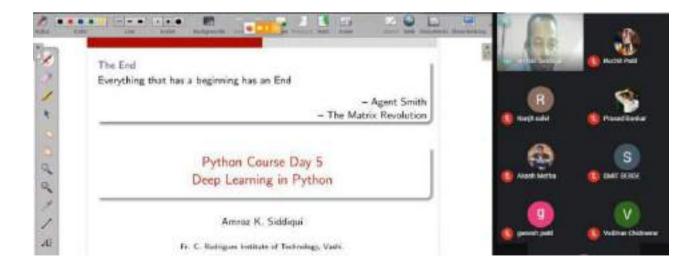
Students of the final year had a discussion on 'Project management' with Ms. Deepti Goel. She explained the nine knowledge areas of PM. The reasons for Project failure were illustrated. Concepts of Project life cycle, stages of Project completion like Project definition, planning, scheduling, Execution and closing of Project. Identification of stakeholders, customers, cost, quality and time triangle of project, Real time constraints like budget, schedule, people, facilities and Equipments for Project completion.

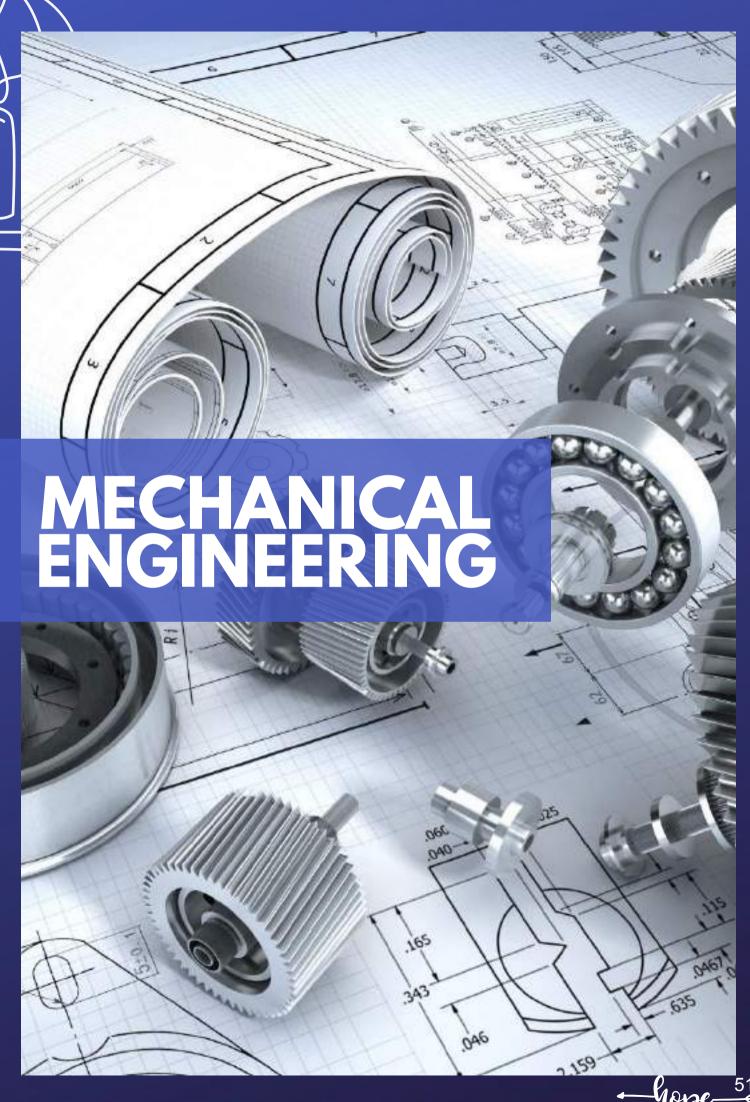


### **COURSE ON PYTHON PROGRAMMING**

Under the guidance of staff coordinator Ruchi Harchandani, a python workshop was organised from 30th June to 4th of July,2020. Mr. Amroz Siddiqui educated the participants on the various aspects of the python coding language, starting from the basics such as functions and data types, moving on to advanced topics like machine learning and basics of neural networks. The participants recorded an overall satisfactory experience, and were able to apply the knowledge acquired to develop a program.





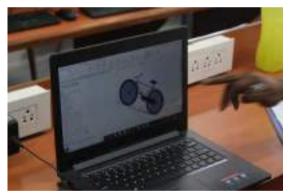


Jope

## Webinar by Kevin Coutinho

"The only source of knowledge is experience"

The only way to learn something besides experiencing it is to learn from those who have had an experience of it. This was wonderfully showcased by our very own F.C.R.I.T. senior and mentor Kevin Coutinho, who on behalf of SAEINDIA Collegiate club of FCRIT organized and conducted the conference called "FINDING YOUR NICHE" which was an innovative approach to counseling the students who have newly joined the institution as well as those who have spent time exploring the depths of engineering, synchronically paving their path towards an ambitious career. The budding motivation among students goes untapped in the prime of their youth due to mismanagement and ignorance, but with the right push and guidance, the likes of which the students received, multitudes of success can be drawn on the canvas ensuring the kindling of passion while upholding the true spirit of engineering.



The speaker Kevin Coutinho is one such example of a dynamic personality clubbed with an immense drive and true passion for engineering. A multifaceted personality having a wide array of achievements in his arsenal with profound experience in the fields of mechanical engineering and aeronautics, Kevin indulged in provoking a thought process, which is the true challenge in shaping a nascent engineer. With the valuable advice of an experienced senior, the students got to interact with the faculty members, received thoughtful advice, gathered information on the exemplary work of SAE in the field of engineering and how to join into the cause. The event was a huge success in its true purpose of aiding the students in finding their niche.

# Volkswagen Basic insight motorsport technicalities

"Das Auto"

As a mechanical engineer, one of the fondest memories that one has is the first sight of a sports car. The elegance in the design, the hum of the engine, the radiance of the headlight, and the silent envious glances towards the owner, all remain embedded into one another and goes into making a true automotive enthusiast. The Volkswagen Motorsport event was one such event marking the interests of rally championship enthusiasts. The event covered multiple aspects of racing with regard to automotive requirements. The event was an insight into the world of racing and cars from the eyes of professionally working mechanical engineers. The highlight of the event was the explanation of the changes made to the recent World Rally Motorsport event tracks. According to the rules and regulations of this race, the engineers had to make changes in the car itself in order to remain ahead of the competition and maintain their stance in the world tournament. This enabling experience is elemental in the survival of every professional and this event was a showcase of what the students should look up to as their future selves. The motorsport event marked the 2nd and final event conducted by SAEINDIA Collegiate club of FCRIT this year.







## **Synergy**

Synergy is an annual technical lecture series conducted by MESA (Mechanical Engineering Students Association.) on 5th December 2020 with the objective of reducing the gap between industry and Institute perspective and exploring latest industrial practices. The speakers were experts of their domain from "Mahindra and Mahindra" Nashik Plant.

- 1.Mr. Sunil Bhatkhande, senior manager- Manufacturing Quality Assurance Topics
  - a. Introduction to Automobile Manufacturing, and
  - b. Industry 4.0.
- 2.Mr. Shreyas Gokhale, Manager- Industrial & Process Engineering. Topic: Overview of Industrial Engineering



The event leaned towards the safety features and Product testing techniques followed and used in India. The speaker focussed more on the increased safety features that Indians are demanding as basic packages in all models by the manufacturers. Buyers are ready to pay more for that extra bit of safety which helps them feel more secure. The GNCAP test results are being widely reviewed by consumers when buying a new vehicle, thus changing the decades-old practice of having fewer safety features for less price. Some information regarding higher education in different advanced fields of Mechanical engineering was also provided. The talk concluded with a Question and Answer session with students asking questions and clearing their doubts.



# Agnel Cyber Cell

# About Agnels Cyber Cell

The cyber-security cell of FCRIT (Agnels Cyber Cell) was inaugurated in the February of 2017 in association with the EC Council, a US based organization and is the first of its kind in Navi Mumbai. This cell was designed to create awareness among the students, to conduct training programmes and research in the field of cyber-security.

Its visions and motto are:

- 1.To offer an environment to the students to learn and research about topics related to Cyber Security .
- 2. Compete in Capture The Flag competition as a team thus increasing knowledge and gaining real world experience.
- 3. Conducting workshops on various topics by students as well as industry professional.

Through the cell, the students can avail benefits like:

- 1. Workshops
- 2. Work on projects assigned by government units
- 3.. Networking with professionals in the industry
- 4. Internships

Its significant activities in the past years include:

- 1. CEH certification in 2017
- 2. workshop conducted by Fevin and Amey in 2017
- 3. CTF workshops conducted by Tejesh , Dylan Jariel , Tanmay in 2018

4. CEH certification training 2018



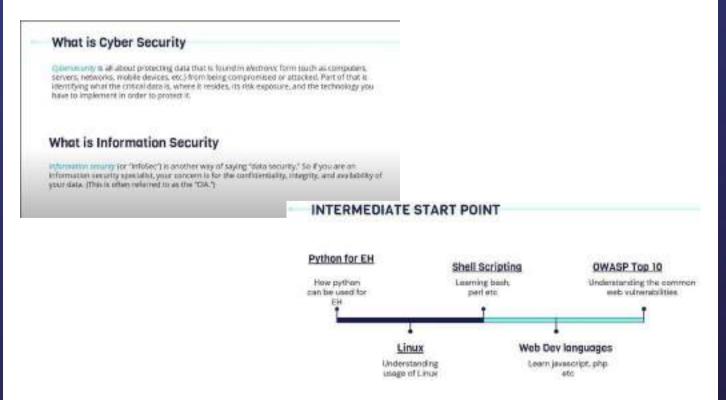
# Webinar on "How to get into cybersecurity?"

The webinar conducted on "How to get into cybersecurity" was the first event of its kind conducted online by the ACC council. Concepts and roles regarding roads to the journey towards being a cybersecurity professional were taught during the course of this webinar.

Various technicalities and terminologies like hacking professionally, the actorsvectors on the job and the subdomains within the field were explained in order to acclimatize the students during this course.

During the later half of the webinar, the ACC experts discussed the important aspects to this profession including the availability of jobs, the positions available and the future prospects with regards to building a career.

The Council displayed the concept of "Boot to Root" a lesson in gaining root access to a Vulnhub Box stressing on the importance of practical hands on experience. With this lesson the ACC also introduced a discord server to gather like minded individuals and create an active community of cybersecurity professionals in the institution.



#### **DISCORD ONLINE SESSIONS**

After the session on Introduction to cybersecurity, a series of sessions for students were conducted which consisted of topics like networking, bash scripting, machine solving. It was a club-student based learning initiative.

#### • Year 2021

#### The Secret To Cybersecurity (Cyber Awareness Session)

The NSS unit of FCRIT in collaboration with Agnel Cyber Cell, organised a webinar on the topic "The Secret to Cybersecurity" 15th February 2020. This event was conducted on Microsoft Teams. There were four presenters for this event. The presenters are members from Agnel Cyber Cell and students from FCRIT, Vashi. There was an active participation from 57 attendees throughout the event.

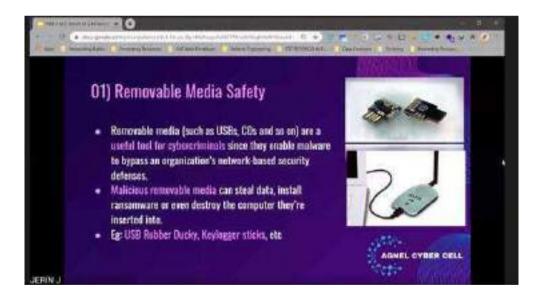




#### Topics covered during this webinar are:

- 1. Current Statistics on Cyber Crime
- 2. Identity Theft
- 3. Cyber Laws
- 4. Securing Social Media accounts
- 5. Password
- 6. User Sanitation





# The Meet the Mentor Initiative

The meeting started with an introduction of the club and introducing the representatives of the club. Then the mentor guided the students through his journey in the field of cybersecurity. The club addressed it's goal and main motive of spreading the awareness on cybersecurity and the Agnel cyber cell.

There was a discussion on the future plans for the ACC, planning towards conducting CTF's, participating in hackathons, making the college students aware of the cybercell and get more students to explore in this domain.



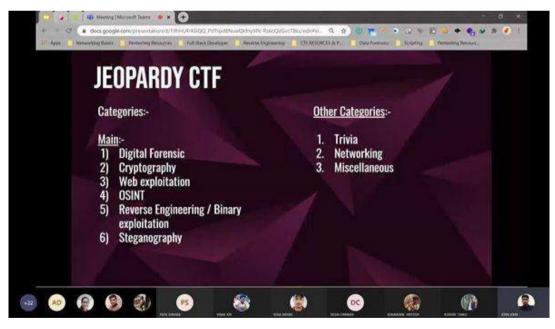
The mentor provided experienced guidance on how to make the club more active, he suggested that we keep sessions by industrial professionals to educate the students about cybersecurity with a guided perspective and insight to the market and its opportunities.

The mentoring session included tips for personal growth as well as the growth of the club. Some of the tips were:

- Get Industrial people for the sessions
- Working in police stations with the crime branch would give a good experience. It
  will enable individuals to get good hands-on exposure and thorough training by
  working with technical experts who have vast experience and knowledge in the
  field
- To aspire to be working and gaining experience with investigating teams, as they require an expertise from certain domains like penetration testing, malware analysis, well-known Network security person.

# Capture The Flag - Building the Basics

Capture The Flag – Building the basics was a webinar conducted on the third day of Etamax Esperanza fest by the Agnel Cyber Cell. The event witnessed students from different branches of Engineering coming together to understand the various challenges associated with Capture The Flag (CTF), a special kind of information security competitions. The event commenced at 10 A.M. on 27th February 2021. At the onset, challenges from the general skills and cryptography section of the picoCTF website were virtually demonstrated by Agnel Cyber Cell PR representative, Francis Anthony Konikkara. The general skills category of Capture The Flag contest comprises challenges that question the students basic understanding of Linux systems, number system conversions, and web development knowledge. This activity was followed by the display of various Cryptography packed challenges. Tools like Caesar cipher, Rot 13, Base 64 and many more were used to solve the different challenges. Multiple Cryptography challenges were solved by the instructor and the audience in a stepwise manner.

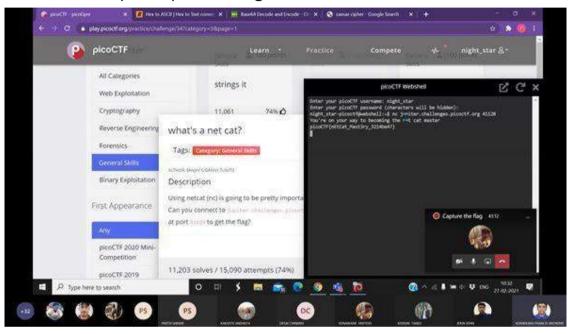


The second part of the session was conducted by the Agnel cyber cell Event Head Vinay Joy. Vinay helped the students dive deep into the frequent methods used in attacking websites-world web exploitation. Web Exploitation amounts for a major chunk of questions in various CTFs. Attendees learnt the various ways by which flags can be hidden within a webpage.

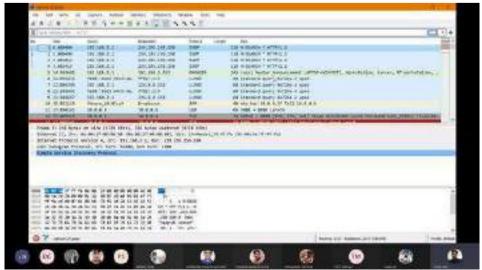
Vinay also explained techniques by which one can use html and JavaScript to gain access to various parts of a website.

The next section of the webinar was led by Agnel Cyber Cell President, Jerin John Mathew. Jerin solved CTF challenges related to Forensics and Osint (Open-Source Intelligence).

Forensics deals with disclosing information hidden within a payload. Data Forensics deals with analysing computers, networks, drives in order to retrieve information. Jerin also displayed some of the Forensics and Osint tools namely HexEd.it, FotoForensics, Autopsy and many more. WireShark forensics was also demonstrated to the participants using Wire shark tool



Agnel Cyber Cell Secretary Hritesh Sonawane conducted the last part of the session. He explained how virtual machines work and also how a target machine can be created. Hritesh displayed penetration testing skills to engage the budding cyber security enthusiasts. Hritesh explained how by using a virtual machine one can gain rights and find vulnerabilities and how using the nmap tool helps a penetration tester find various network loopholes and errors across various internet protocols.

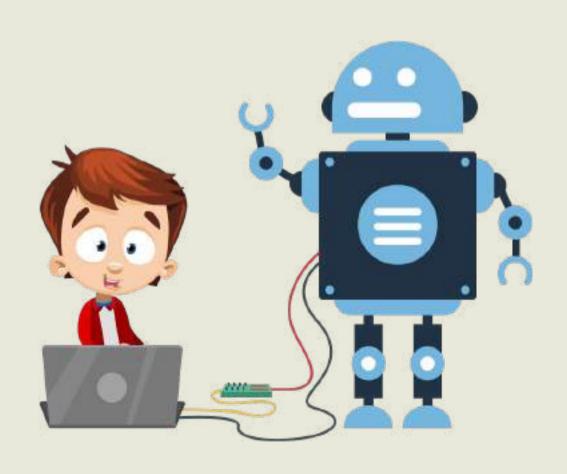




The webinar concluded with a vote of thanks by the organising committee. The webinar proved to be enlightening for the participants, who, while progressing, could use the concepts and skills that they gathered through this webinar to win multiple Capture The Flag competitions.



# Coders 'Club



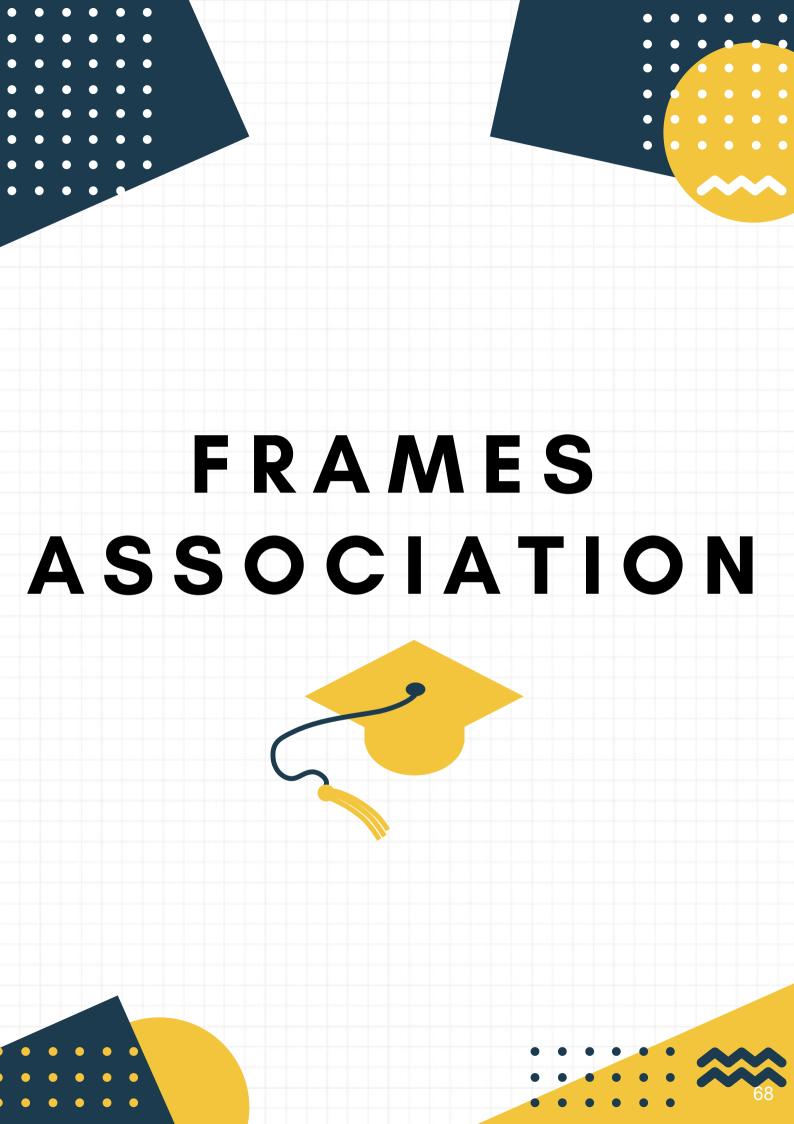
## About The Coders' Club

"Its a community built by Coders, for other fellow Coders"

The Coders' Club of Fr. Conceicao Rodrigues Institute of Technology, Vashi was founded in the year 2017 headed by Harshit Rai, our fellow alumni from the IT department. The Club believes in overall technical development of students by organizing workshops, webinars, coding contests, assisting in hackathons and acting as a platform for enthusiastic coders to showcase their talents. Etamax Esperanza 2021 registration website was also built by the club. It is currently a college chapter of CodeChef and aims to conduct various contests in the future on the platform to encourage the growth of coding and development culture.







## Virtual Alumni Meet 2021

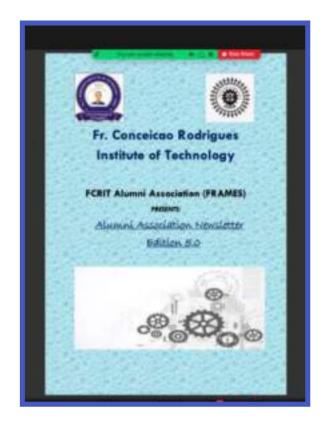
The Virtual Alumni meet 2021 was held on 3rd January 2021, wherein the Alumni from batches of 1998- 2020 were present. The event commenced with a welcome song by Mr. Tejas George of Electrical Year Four. The event then proceeded with a speech by Mr. Karan Balkar, President of FRAMES committee and was followed by Dr. S. M. Khot, Principal of FCRIT addressing the attendees.

The honored guests of the event were Dr. Rollin Fernandes ,Ex-Principal of FCRIT and his wife, Mrs. Bertha Fernandes, Ex-Professor ,Humanities Department. From the alumni side Mr Vijay Nair, a student of the first batch of FCRIT gave an alumni talk. The meet then had a special song for the alumni performed by the Rhythm Music club of FCRIT which made everyone reminisce about their college days. Furthermore the attendees were awestruck by a poem recited by Ms Bhagyashree Laxminarayanan which made the alumni reflect back on their days as a student.



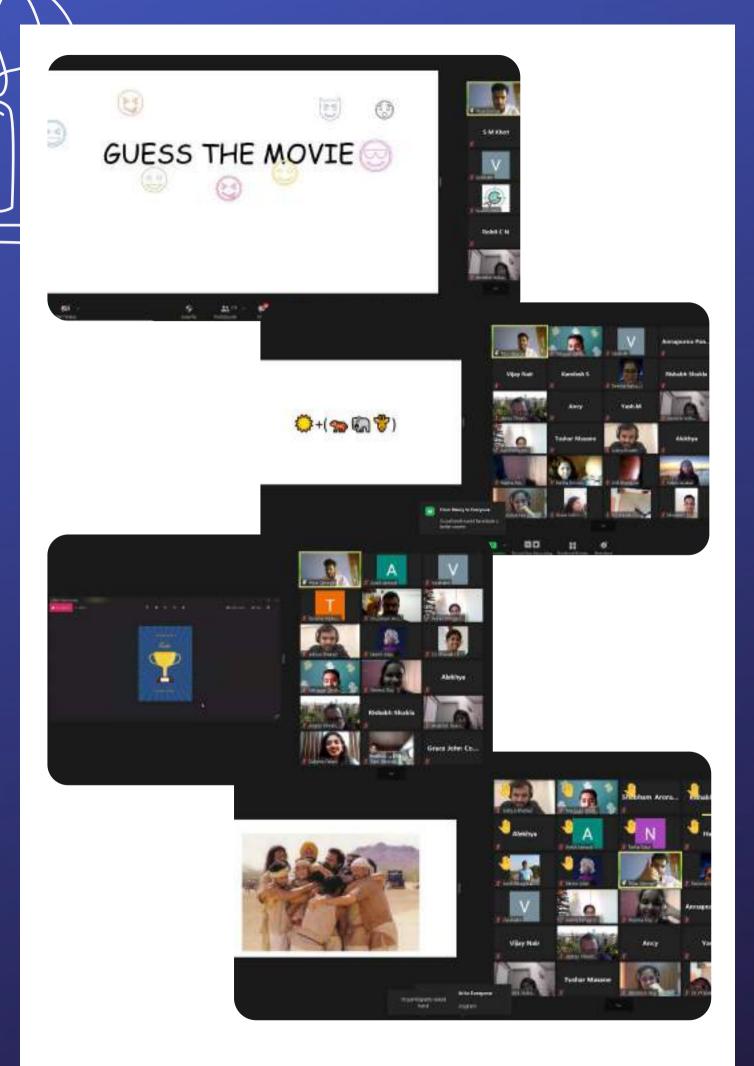


The alumni newsletter for the vear 2021 was also released during this event. The attendees got to know about achievements of alumni various fields. The event then progressed with games arranged by the organising team. Games like Guess the Movie & Guess the Bollywood Song were conducted and received enthusiastic participation from the alumni and other attendees. The winner of this competition was the EXTC department.



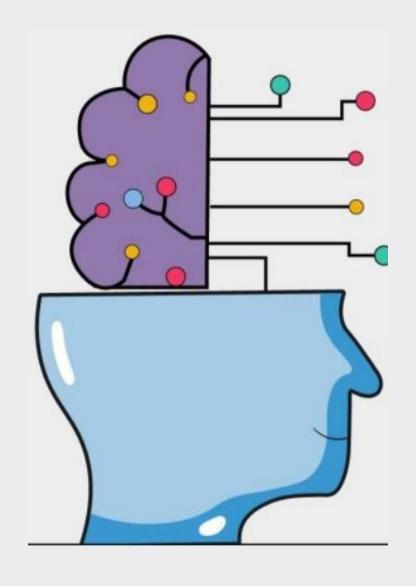
Mr.Deepak Tiwari performed a nostalgic shayari. Nearing the end, an alumni talk was organised, wherein many alumni had the opportunity to reminisce and talk about their college days, their experiences and how things have changed over the years. This beautiful journey was concluded with a vote of thanks to everyone that made this event successful..





# ARTIFICIAL INTELLIGENCE

&



# DEEP LEARNING CLUB

## About the Artificial Intelligence and Deep Learning Club

The Artificial Intelligence and Deep Learning (AIDL) Club of Fr. C. Rodrigues Institute of Technology, Vashi, focuses mainly on activities related to Artificial Intelligence and Deep Learning. The objective is to spread awareness, encourage students, staff as well as industry professionals by fostering interest to build projects with AI & DL that solve real world problems. It initially started as a collaborator of the AI and Deep Learning initiative taken up by Bennett University.

The aim of this club is to foster the culture of competitive coding and create a group of passionate individuals working towards peer learning and development in the field of Artificial Intelligence.

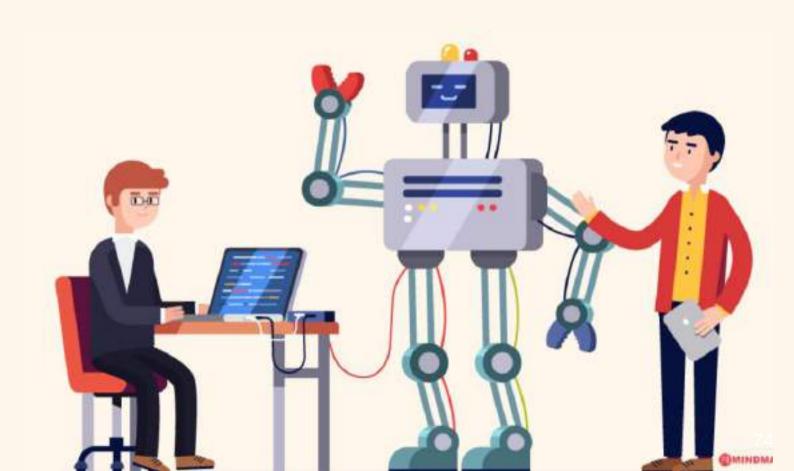
The club achieves this by:

- Conducting activities like seminars, hackathons and interactive workshops to engage in team building activities
- Creating a network of hard-working and enthusiastic individuals, creating teams to represent the institution at prominent competitions, as well develop proficiency in these contemporary technologies.





## Agnel Robotics Club



## About Agnels Robotics Club

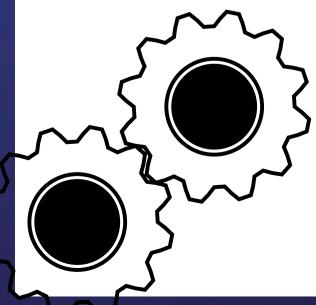
ARC, the student club of FCRIT is the first of its kind in the campus; co-founded by students of the Mechanical and Electronics and Telecommunication Departments back in 2013. The goal of the club is to imbibe and nurture skills in the domain of robotics and automation. The club is a strong believer in the motto "Innovate-Practice-Excel". It is an effort to encourage the exploration of the fields of Robotics and Engineering irrespective of and aims for the holistic development of students.

Since 2013, the members of the club are constant participants in ABU Asia-Pacific Robocon Contest, an Asian Oceanian College robot competition. Apart from this, the club of young enthusiastic engineers actively participates in different nationwide competitions i.e. Eyantra, Smart India Hackathon, DST & Texas Instruments - India Innovation Challenge Design Contest (IICDC) and many more inter-college competitions.

Just like every year, the pandemic half of 2020 was no different for the associates of ARC. The period was filled with workshops and also witnessed students participating in Robocon and E-Yantra with sheer dedication. The workshops were conducted online on the officially assigned ARC team's channels on MS Teams software. ARC thus became the first technical club in the campus to have its own 'team' on the MS Teams domain.

"Hands-on experience is the best way to learn about all the interdisciplinary aspects of robotics."

--- Rodney Brooks



## Achievements:

EVENT	PARTICIPANTS	RANK/ACHIEVEMENT
DD-Robocon 2020	Agnel Robocon Team 2020	Stage 1 - scored 99/100 Stage 2 - Ranked 13th National Finals - AIR 17th
E-Yantra Robotics Competition 2020	Varad More, Suraj Mahanghade, Prathamesh Nerkar, Ritoo Verma	1st Place
IEI BLC FCRIT Excellence Awards	Rito <mark>o</mark> Verma	Research Excellence - UG Regional
IEI BLC FCRIT Excellence Awards	Varad More	Special Recognition in Research Excellence - UG Regional
Indian Innovation Challenge Design Contest 2020	Varad More, Dattaji Gosavi, Ritoo Verma, Suraj Mahangade, Prathamesh Nerkar, Aishwarya Mathew	Shortlisted for Semi-finals
Smart India Hackathon 2020	Suraj Mahangade, Prathamesh Nerkar, Ritoo Verma, Varad More, Aishwarya Mathew, Abhijit Acharya	Grand Finalists
Smart India Hackathon 2020	Saurabh Kothari, Paresh Pandit, Alen Biju, Rayan Crasta, Saumya Purohit, Akhil Abraham	Grand Finalists
Smart India Hackathon 2020	Jamaluddin Khan, Shritej Patil, Rohit Kadam, Om Rao, Nikunj Gaonkar	Grand Finalists

### Workshops and competitions conducted:

• Journey of Eyantra Seminar - 26th July 2020

The seminar was to share the experience with peers and encourage them to participate in e-yantra & similar competitions. It was an open seminar for all at free of cost.

• Arduino & Sensors Workshop - 5th - 6th September 2020

This workshop was especially for the Mechanical Sem 3 students to understand the fundamental concepts and aid the students with the upcoming course projects. It briefed about Arduino UNO and how it can be used in a virtual environment using 'TinkerCAD'. Attendees also worked with different Sensors and actuators and integrated them with the microcontrollers like Arduino UNO to control them.

• ROS Workshop - 12th - 13th November 2020

The workshop introduced a Robot Operating System (ROS) Melodic, a widely used software, particularly in mechatronics, automation, and robotics. Key takeaways of the workshop were creating packages and learning to navigate in ROS, overview of Rosmater, Rosnodes, Ros services, writing your own subscriber and publisher, Hands-on Turtle bot & following a turtle bot, Rviz visualization for robots and finale with a demo of an autonomous car project.

• Ansys Workshop - 5th - 7th February 2021

The workshop was conducted in association with AutoDice, an industry specialist briefed about the CFD using ANSYS Fluent. The workshop briefed on making geometry in Ansys design modeler, meshing, problem setup and CFD using Ansys fluent.

• Eagle Workshop - 13th - 14th February 2021

The workshop highlighted the use of Autodesk Eagle. The objective was to teach attendees to create schematics, manage libraries and generate fabrication files for the designed board layout. This aided students who wanted to learn and design their own PCBs.

- Pope 77

### Publications:

The following literature was published as the outcome of the work of the Agnel Robocon Team.

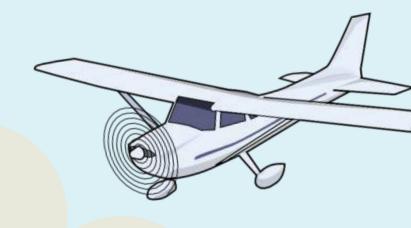
Literature Title	Authors	Conference/ Journal for publishing
Trajectory and Gait Planning of a Quadruped using Adams and Simulink	Abhijit Acharya, Harshit Singh, Steve Morais	International Conference on Nascent Technologies in Engineering (ICNTE 2021)
Lane Following using Image Processing	Suraj Mahanghade, Tanmay Gujar, Varad More, Saurabh Kothari	International Conference on Nascent Technologies in Engineering (ICNTE 2021)



ARC 2020 Covid19 Pandemic Team



# Aero Club GARUDA



## SAE- Aero Design Challenge

A team of 7 members aspiring to fly high set a spark for the foundation of Aero Club in 2019. Later additional members joined the club as support team members. The team registered for their first event SAE Aero Design Challenge in August, 2019 and began their journey.

The event is about designing and fabrication of a highly stable heavy lifting RC aircraft falling under given constraints.

The efforts put in by each member of the team paid off as the team secured an impressive 5th place in the technical presentation round and 16th for the report submission, a feat commendable for their first competing year.

Being the pioneering team of the club it had been a tough journey for the team as they had to start from scratch for each design parameter. Online courses, reference books of aerodynamics and through multiple iterations of their plan, the team gave birth to their prototype, "The White Lady"and consequently their final RC plane, "Garuda".



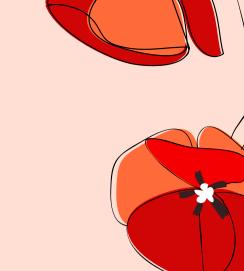
WHILL

With a successful run for the year 2019-20, the team now aims to keep the legacy up and running with new members added to the roster and continue participating in SAE ADC and other similar events. Preparations for the next round are already set in motion and the team is working hard to secure better rankings, even amid the current situation.

The college has constantly supported the team by clearing their doubts and providing all the necessary facilities. With the same enthusiasm, the team is now looking forward to continuing their legacy onto the next set of aspiring engineers.

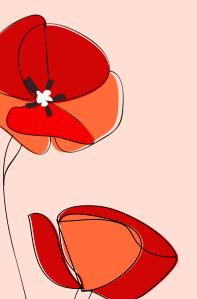






## NATIONAL SERVICE SCHEME

(NSS)







### About The NSS



The National Service Scheme (NSS) is an Indian Government- sponsored public service program conducted by the Ministry of Youth Affairs and Sports of the Government of India. The programme aims to instil the idea of social welfare in students, and to provide service to society without bias. NSS volunteers work to ensure that everyone who is needy gets help to enhance their standard of living and lead a life of dignity. In doing so, volunteers learn from people in villages how to lead a good life despite a scarcity of resources.

The NSS unit of FCRIT, Vashi was started in the year 2019 in the month of September. This unit functions under the guidance of Program officers, Mr. Rahul Jadhav, computer department and Mrs.Dhanashree Hadsul, I.T. department. The unit has 50 volunteers from the degree college.

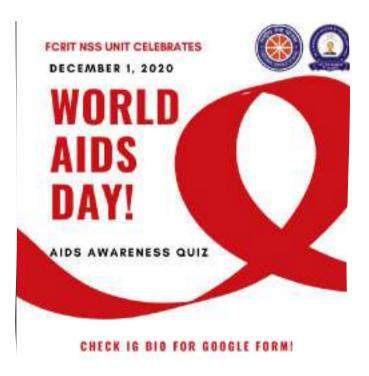


**NSS TEAM OF FCRIT** 

## AIDS AWARENESS ACTIVITY

The NSS Unit of FCRIT conducted a Quiz Competition and Poster Making Competition under the theme of the AIDS Awareness Campaign on 1st December 2020. The event was conducted virtually, following the government's directions to continue social welfare under lockdown.

The purpose of the campaign was to spread awareness on the disease of AIDS, which is caused by HIV, and how social stigma affects the mental and physical well-being of those infected. Hence, the unit decided to organize a quiz and poster-making competition.





The questions of the quiz were designed in such a way that they question the moral ethics of our behavior rather than factual questions. This not only helped the participants understand the fault in their attitude but also taught them the facts of the disease, thus debunking the infamous myths.

Furthermore, the poster-making competition was conducted in a similar light, of questioning our behavior towards the patients and spreading awareness among the population. The submissions were accepted as digital posters as well as handmade posters.



The response to the campaign was excellent and overwhelming. We received more than 80 entrees and were delighted by the hard work of people to spend their time crafting handmade posters.

Participants of the quiz were awarded points out of 15 and the top three (By Sanika Deshmukh(1st), Sasha David(2nd), and Afrin Dange(3rd))were featured on the unit's Instagram handle. Similarly, winners of the Poster Making Competition were awarded certificates and were featured on the unit's Instagram page, drawing critical appreciation from followers.



# COVID AWARENESS DURING GANESH CHATURTHI





The NSS Unit of FCRIT conducted a week-long campaign prior to Ganesh Chaturthi (22nd August 2020 - 3rd September 2020) to spread awareness of COVID-19 regulations to be followed in these difficult times. The campaign was mainly conducted in the form of a pledge drive using Google Forms.

The purpose of the initiative was to reach people and convince them that, the grandeur of the festivities would not be compromised if they followed the regulations strictly

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On similar lines, a pledge was circulated among our contacts that asked them to pledge to conform to the regulations and submit the photos of their celebration to us. Hence, a festival conforming to the norms of self-distancing and following regulations was celebrated.



### **COVID-19 AWARENESS**

In the lockdown period, the publicity team of NSS FCRIT constantly encouraged students to make posters and videos to spread awareness regarding the pandemic and Covid-19 through the use of social media such as Instagram and WhatsApp. The digital posters, drawings and videos made by the students were fact-checked using government and official healthcare websites and shared through stories, posts, and WhatsApp statuses.









#### The aim of this activity was:

- To spread awareness about Covid-19 symptoms and precautions, pandemic and AarogyaSetu application
- To bring out the creativity of students

#### The outcome: Awareness was spread regarding

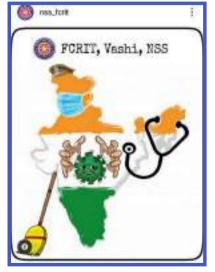
- The symptoms of Covid-19
- Preventions for Covid-19
- Pandemic jargons like self-isolation and quarantine
- AarogyaSetu app
- Working-out indoors through meditation
- Increase of online scams during the lockdown and its prevention

## Successfully encouraged students to stay home Taught students and social media followers how to make masks at home



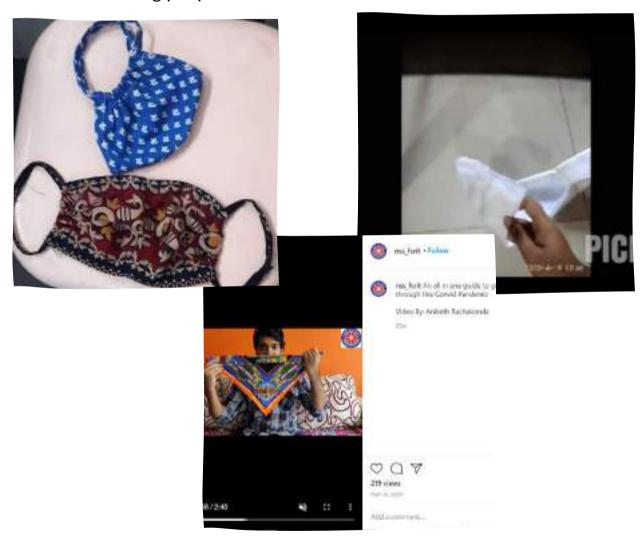






## MAKING AND DISTRIBUTING MASKS

The NSS Unit of FCRIT along with the POs conducted a wide-scale campaign to spread awareness of the need to wear masks to prevent the spread of COVID-19(March 2020 onwards). The campaign was driven virtually and was spread throughout the lockdown period, beginning from March 2020. The objective of the campaign was to make the population aware of the necessity of wearing masks and teaching people how to make COVID-19 safe masks at home.

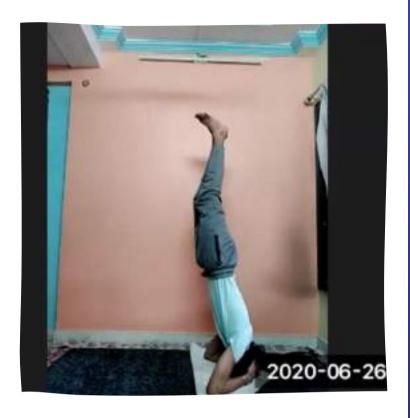


Following the objectives of the campaign, volunteers of the NSS Unit made videos and posts that taught the populace how to make their own DIY masks using pieces of clothes that could be easily found in their own homes.

Furthermore, Programme Officers supported the campaign by delivering handmade masks to poor people safely.

## PRANA YOGA WORKSHOP

education Yoga can supplement school and university education. It can the students prepare physically and mentally for the integration of their physical, mental and spiritual faculties so that the students can become healthier and more integrated members of society and of the nation. Practicing Yoga helps in self-discipline and self-control, leading to an amount immense awareness, concentration and higher level of consciousness.



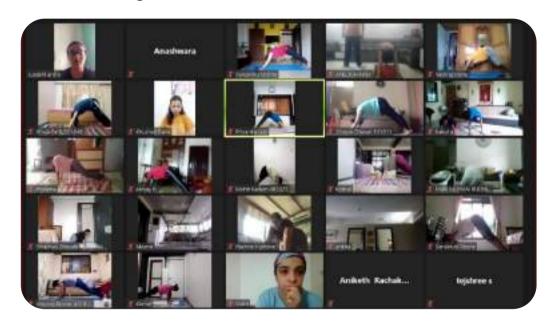
The yoga workshop took place on the zoom online-platform from the 24th to 26th June 2020. The Non-NSS, as well as NSS volunteers, took part in this webinar. A total of 81 participants took active participation in this webinar. The yoga workshop was conducted in the morning from 8:30 a.m. to 9:30 am for 3 days. Khusali Rana, Surabhi Arora, Priyanka Jain, Dhruv Kabra were the mentors of the yoga workshop.

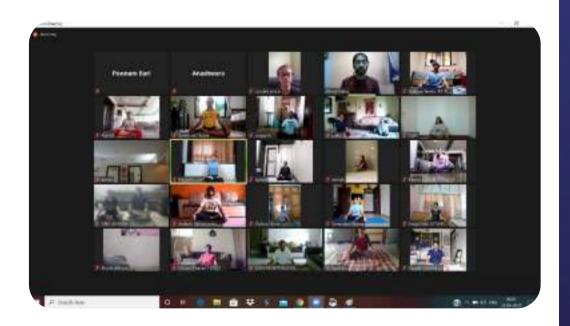
The yoga webinar started exactly at 8:20 a.m in the morning and got over by 9:30 a.m. for the three days. The webinar started with Suryanamaskar followed by asanas and breathing exercises. Initially, the asanas were taught by the mentors, and then the participants were told to do so.

The mentors were keeping watch on the participants while they were performing the asanas and kriyas.

The objective of the workshop was:

- 1) To enable the student to have good health.
- 2) To practice mental hygiene.
- 3) To possess emotional stability.
- 4) To integrate moral values.
- 5) To attain a higher level of consciousness.





All the participants poured this ecstasy after performing the asanas and kriyas. This indicated that the webinar was an immense success. The e-certificates were given to the participants who participated in the webinar.

### RATION DISTRIBUTION

The coronavirus lockdown. imposed 25 March onwards, highlighted has several stories - from migrants traveling home on foot to the poor struggling to make ends in these meet. However, incidents of collective distress and shared pain, NSS volunteer. Yukta Thakur, came forward to help the people who lost their houses due to the cyclone which occurred on 3rd June 2020 and were facing numerous problems due to the She distributed lockdown. face masks, sanitizers, ration ( rice, wheat, pulses, oil, etc) and clothes for nearly 25 families.

NSS FCRIT, program officer, Mr. Rahul Jadhav also contributed to the personal funds of NSS Mumbai University's program officer's initiative for distribution of ration in Aadivasi locality in Raigad district.







## Music Club

RHYTHM



## About Music Club- Rhythm

Music for centuries has served the very purpose of livening up lives. It helps a person feel, express and achieve. Many find their inner self leaning into music, they find their peace in music.

Here at F.C.R.I.T a plethora of students share their love for music.

And Rhythm helps them search for their Ikigai. Rhythm, the official Music Club, which is a part of the Literary Arts section of F.C.R.I.T. is one of the newest and most awaited clubs in Angel's. Formed by a group of music enthusiasts, this club comprises a total of 114 registered members and is still counting. The core committee comprises students from across different departments and stream

#### **Council members:**

Club heads:

Aldric Pinto (Comps Sem 6)

Dany Poly (Comps Sem 6)

Secretary:

Ananya Rajesh (IT Sem 6)

Treasurer:

Anshuta Kakuste (Comps Sem 6)

**Creative directors:** 

Jennifer James (Comps Sem 6)

Joel Chacko (Mech Sem 6)

**Event heads:** 

Catherine Sarah Sunil (IT Sem 4)

Elisha Gras (Comps Sem 4)



## Prayer Song at CSI events

Working hard is the key to success for any activity they say, but for anything that we do, luck plays a major factor in influencing the path that it will take. We often slip in a prayer filled with nervousness before our exams, wishing for an easy question paper and of course, good grades! Whether it works or not is uncertain but by doing so we hope that God supports us in whatever we do and helps us carry out our task with utmost perfection.

## WEBINAR ON CLINICAL TRIALS (Live)

The CSI chapter of FCRIT organized their very first event of the academic year 20-21 on the 14th of August which was a webinar on "Clinical trials, Planning and Governance". It was preceded by a soulful version of the hymn "Shepherd of My Soul" with Elisha Gras performing the vocals as well as the Piano.

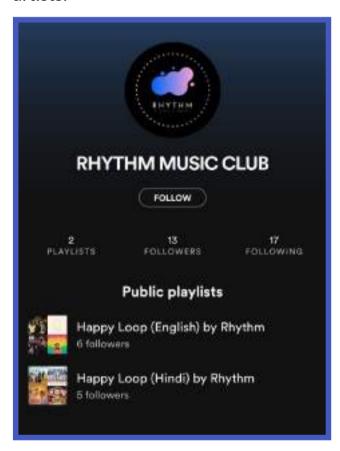
## ACESS 2020 (Pre-Recorded)

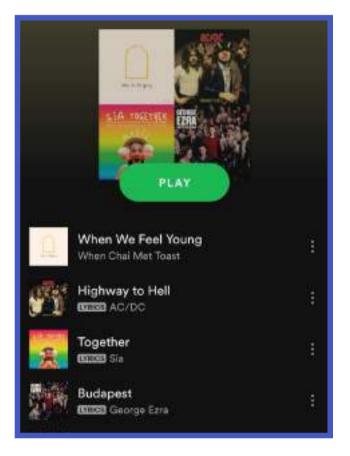
The CSI chapter of FCRIT organized their second event of the 20-21, the orientation seminar on the 16th of September, ACESS 2020. Similar to the past occasions, this event began with a beautiful cover of "You raise me up" by the Secret Garden. The music club Rhythm was in-charge of the inauguration prayer and did an excellent job with the club's talented council members taking up the roles – a melody in the form of a choir with Dany Poly and Joel Chacko on bass, Jennifer James and Catherine Sunil on Soprano, Elisha Gras on Tenor and Anshuta Kakuste leading them.

## Shared Spotify Playlist

Music churns out those emotions from within the heart that mere words can't reach and hence is called the shorthand of emotions. Each song tells a different tale and takes you along a unique journey. We adore the music that we find relatable and awe the artists who create them.

Although we are all college students, life has treated us in a variety of ways, and what's better than a common playlist to empathize with each other? Yes, you guessed it right, Rhythm FCRIT had taken a wonderful initiative in the previous year of curating a shared playlist on Spotify that every person in our college can contribute to and enjoy. The activity was launched on 3rd September and the Rhythm family currently has a collection of more than 50 songs by various artists.





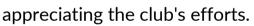
### Team Formation

The club formed three different teams consisting of singing, instruments, and production. This was done in order to approach future events in an organized manner.

## Virtual Alumni Meet 2020 (Pre-Recorded)

Covid-19 struck us hard and bound us within the four walls of our houses for a lot of time. Meetings, get-togethers, classes and ceremonies that were interrupted due to the lockdown, now have found a way to function – Virtually. The club overcame the challenges posed by Covid-19 and adapted to the new normal.

The Virtual Alumni meet was held on the 3rd January 2021 where all of our college alumni from the batches of 1998-2020 and the current students were invited. The platform used was Zoom and many activities ranging from games to talks were organized by the FRAMES Alumni Association which was a refreshing experience for all the participants. Out of all the events, one of the highlights was the group song presented by Rhythm FCRIT which was a mash-up based mainly on the theme "Friendship". The teams of the club that was formed earlier worked hard for this performance, and the result left many of the alumni nostalgic and





## ICNTE inauguration ceremony, Day 1

The 4th IEEE & IAS Technically Co-Sponsored Biennial International Conference on Nascent Technologies in Engineering (ICNTE 2021), was organized using Virtual Mode at Fr. C. Rodrigues Institute of Technology, on the 14th, 15th and 16th of Jan. The inauguration ceremony began with the talented members of the Music club Elisha, Catherine and Aldric presenting the song "Quiet my mind", as if anticipating the nervousness within the participants during the event.

## Dramatics Club

THE DRAMA HOUSE



## About the Dramatics Club

The Drama House is a student organized club of Fr. C. Rodrigues Institute of Technology, Vashi established in 2016 to provide a platform for the students to discover drama, culture and various forms of self-expression giving a chance for the students to grow creatively, focus on individualism and develop social skills.

The Drama Club aims to regularly conduct activities and events in the interests of the students. The club is presently run and managed by Meenal Tiwari and Jyotsna Nair both from second year engineering EXTC department and several other students holding the core posts.

## Virtual Open Mic

The Drama house conducted Virtual Open Mic on 12th July, 2020 at 5:00 pm to 6:30 pm on online Zoom platform. The event was hosted by Mr. Aaron Pereira and Ms. Neha VB, judged by Mr Jeril Martin, Mr Leo Varghese and Mr Lokesh Nagar. The performances ranged from stand-up comedy sets to music performances to story recitation. All the performances were heart-warming and enjoyable. The winners of the event were Geo Rocky from EXTC department (musical performance) and Soumitra Bhagdikar from Computer department (stand up comedy)

The event wouldn't have been successfully conducted if not for the club members and staff coordinator Mrs. Swapna Gijare.



## CREATIVE CORNER

THE FUTURE BELONGS TO THOSE WHO BELIEVE IN THE BEAUTY OF THEIR DREAMS.

ELEANOR ROOSEVELT

## **Oasis**

Caught in the middle of the storm
A family said, "all we can do at the moment
Is hold onto each other,
Stay together and stay strong"

Some trees were uprooted Some homes broke down Some lost what they loved the most Some ships perished before reaching the coast.

But those who could make it alive did learn
That everyone was ultimately moulded out of the same clay
And if they don't stay strong and united
They'll all be washed away

We are caged within our homes
Our pulses spelling hope
We are now thirsty for the things we took for granted
But our letter now lies within an envelope

And if we see, our hearts that were once stone, Brimming with malice, greed and selfishness Now have opened their eyes to be able to see A world that lies beyond themselves



hore 103

Not just our lamps light up to dim our sorrow Every one of those little city lights screams for a better tomorrow We burn endlessly, we won't accept defeat We all stand in solidarity, firm on our feet

And over time, our outlook has changed We've learnt to make the best of what we have gained The devices at our home have devoured the miles

We are catching up with time as it flies

Some were forced to develop in the time that they roamed about aimlessly Some fiddled with objects around them and discovered things accidentally Some really took to alternatives they just wished to just see For some adapting was as difficult as switching from coffee to tea

But we all did, eventually
And look how our optimism has scored
It has taught us that a lot more has been made out of life
In the time that we complained about being bored

Nobody knows when our regular lives will return
But we all now know better than wasting this turn
Just like we stop and decide before we cross
Let us introspect ourselves and reflect upon our thoughts

Life has thrown us into a dreary desert of difficult times
To help us learn the art to survive
To notice those things that we've always missedA chance to be our own oasis.

~Bhagyashree Lakshminarayanan Computer 6

## Hope

"Hope" almost seems to hold a dirty connotation in these times of despair. It's been almost a year since our whole world toppled on its head. As time progressed, one thing became clearer, our new normal; rising death toll, authoritarian regimes and ever changing climate. The last decade was a call for building an Edifice. A construct of our social reality. Instead we constructed a house of dominoes. One brick of promise on another. The pandemic was the push for the first domino to fall and the house is still falling and we all seem to be under it. And it's important to bring down the house that won't last to build a stronger one.

#### 8 minutes

Even though it feels like we are in the worst of times, there's always something in the world that makes me think otherwise. There always seems to be a brighter side to any situation. We have seen the worst of ourselves especially in this pandemic.

The democracies of the world continue to turn rigid and authoritarian. But it's not hidden anymore. Our world has become so globalised that we can perceive the truth right from the comfort of our homes. The killing of the 46 year old African American George Floyd was a gut wrenching incident. Demonstrations took place in over 2000 cities and 21 countries throughout the world in which more than 20 million people participated. It is estimated that #BlackLivesMatter was used 50 million times on twitter. The protests exposed a culture of systemic racism in the administration of Donald trump and the United States of America. The eight minute kneel that led to Floyd's death ensured to leave an enduring dent against racism throughout the world.

Another series of protests were meanwhile gaining ground against a controlling government halfway across the world. Alexei Navalny, the opposition leader of Russian Federation was arrested when he was returning from a long exile in a foreign state. His arrest and the release of the documentary film Putin's Palace, which depicts the corruption in Russian Federation, led to fierce opposition by the people of Russia. Protests started in almost 200 towns across the country.

Of course they were met with force by the regime and eventually the protests curbed. The events in Russia and the United States, the two superpowers of the world, begs us to again ask the question that the great philosopher Socrates might have asked 2400 years ago: Does every democracy lead to an totalitarian rule. Shawn Rosenberg in his 2019 paper titled "The Rise of the Incompetent Citizen and the Appeal of Right Wing Politics" points out, "While there are structural weakness in a democracy, the right to speak-out ensures that there would always be someone to oppose even preserve the existence of democracy and perhaps democracy will prevail." And what we saw in Russia and America might just give us hope for a better future. As a matter of fact what is democracy if not a society "by the people".

#### Leaning to learn

The lockdown presented an interesting dilemma in the education sectors throughout the world. Before the pandemic getting a formal degree or a diploma from a reputed university was one of the most widespread ways to hope for a better life. But that did mean we were not learning to learn. The socio-economic position of a candidate was dictated by his education for the most part. The ripple effect of this dilemma was seen as higher up as the ivy leagues, where students questioned the idea of learning at home without the social interactions or practical application. Many students dropped out, refusing to pay higher fees that would put them in debt for a lifetime and switched to a skill based education. That forced many institutions to embrace the technology ( for real this time). The EdTech world boomed and perhaps it is now the single most valuable asset in the field of education. The planet and us

#### The planet and us

The lockdowns across the world to control the blowout of Covid-19, huge decreases in public and private transportation and industrial activity caused a drop in daily carbon emissions. Even though carbon dioxide is ever increasing in the atmosphere, even during a pandemic that could last for a generation, there have been changes in individual behaviour and response by the general population that will impact our ability to combat climate change. Some of it, like the delay in the Paris climate accord signed in 2015, the international conference to finalize High sea treaties and the deforestation of Amazonian forests could make the situation worse. There have been some positives. Many cities have closed off streets to help residents avoid public transportation and increased bike lanes. European cities have also expanded biking. Transportation is responsible for 23 percent of global carbon emissions with 11 percent coming from aviation. Decrease in international air travel due to Covid-19 has decreased CO2 and nitrogen exide emissions as well as ozone creation. As people realize they can be equally or more productive at home, remote working will likely become much of the norm in the future. The pandemic has disrupted our 200 year culture of "leaving our house to do productive work." We did have the technology to make this infrastructure possible and maybe this will continue owing to the ease and flexibility.





#### A simple life

Lockdowns and quarantines have compelled people to stay at home and cook, which benefits the environment because it requires fewer resources than ordering in or eating out—processing, packaging and transporting food add to its carbon footprint. And because COVID-19 has hit people with pre-existing conditions harder and meat prices rose, more people may be trying to eat less meat and instead opt for more organic, vegetarian or vegan foods. Having experienced the sight of empty shelves in grocery stores during the pandemic, they may also be inclined to waste less food. People who want to know where their food comes from may move away from processed foods, and eat more locally or grow a garden.

Living simply within our homes has encouraged many people to re-examine their pre-pandemic more materialistic and consumerist lives. Do we really need the latest fashion or the newest gadget? Consumer goods contribute to climate change throughout their life cycles: raw materials extraction, processing, logistics, retail and storage, consumer use and disposal all result in carbon emissions. Perhaps we will no longer be as susceptible to the planned obsolescence inherent in fashion and many other consumer products.

~Abishai Paul Mechanical 6

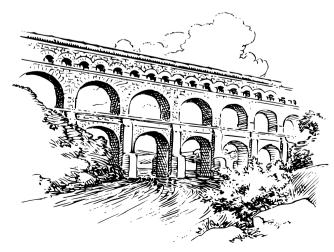
## Bridges

(Original in Bangla by Srijato)

"Why did you leave abruptly"
A question that often leaves one nonplussed
"You could have stayed longer"
"It is easier said than done", you said
From a distance it ain't an easy task
To decipher how burdensome one's life is.

A jejune smile was always plastered on your lips
Assuring the benighted folks of your well-being
Your heart, a quisling, spoke otherwise
Clinging to the fine strand of life and sanity are you,
Reminded it
Life is a veritable bedlam anyway

Feeling lonely in the midst of an ebullient crowd Even in the midst of charming sun rays You feared the looming darkness The exhaustion in your eyes Spoke if dreams shattered and hopes tarnished Life is not a poem to render justice, all poetic



All of us are pettifoggers

Masquerading pompously with a blinkered outlook
Albeit a know-all attitude
Oh ignoramus, the feet that have walked a mile
Know the pain of blistered soles

One who has left has gone forever

One who remained, has still not left

Open the windows of your heart

Call out to the souls struggling to stay afloat

If your call went unanswered, did you look out for the sheep lost?

Oh all ye, build a bridge of compassion
Wake the weary souls and never let them
Slip into a slumber forever
I bellow out with grief, an unsolicited advice
"In arduous times keep your friends closer
And to folks in general
Don't be philistine, but be compassionate"

~Digina Derose Computer 8

### Ricochet

"The moment a person is born, the purity of the soul is diminished by the forces prevalent on earth. Just like a raindrop that touches the ground, the soul is never really entirely pure until it evaporates back into the place that we call afterlife. The sanity of human nature is derived from the duality of these unseen unnamed forces. All the good, all the bad, all that is perceived from the general behavior of all human beings, all of it is a periodic spectacle of a perspective embedded deep within human nature. The soul can never be discovered because it does not exist, or is it beyond our non-astral selves to ever reach the capabilities to figure out the nature of the two unnamed fundamental forces that chart the very meaning of our being?

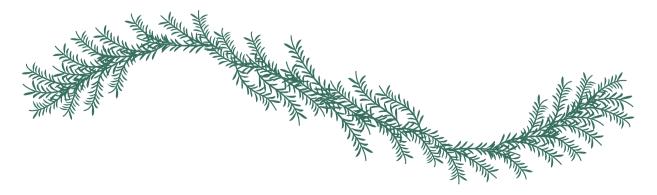
And just like that thoughts wander onto the social concordance towards the fundamentals of unacceptable human behavior, made admissible by the throng of those who seek power. War is the strongest paradigm of socially accepted distasteful human behavior. The quote "Everything is fair in War" just justifies the words quoted by Sir Winston Churchill "War is the Orgy of Disorder"

Now however bad humanity may seem there is always a second side to a coin. Human nature is a very complex yet extremely simple science. Human behavior is mangled by the flaws defaulted into it by the perceptions of the thoughts inside the human mind. Now sometimes, however bad it may seem it is extremely necessary to have a revolution, to have a hurricane, a whirlwind, a tsunami before the rainbow appears. That being said, it is exceedingly treacherous to allow an exception to the human mind. Creative as it is, it can turn any situation in favor of its own acceptable exception and do what its inner soul begs for. Disorder.

Now everybody wants to settle down, make a living, live a peaceful life. But embedded deep within our lizard brains somewhere is a devil that does not allow us to do so. Those who win over him are either truly genius or extremely lazy. No matter what a person has achieved in his or her lifetime, no matter what potential a person holds; the greed of power always trumps the need of stability. This is the effect of Earth on the soul of a human being. However, humans have managed to use this constant need of approval and strength in their own favor making them the strongest living creatures on Earth. So far that now they dream of a life without Earth, without plants or even without an atmosphere. The arrogance of human progress lies within this very brain infected from the worldly desires. The optimization of otherwise impure thoughts into extremely beneficial elements that boost the progress of the human race has become possible due to this ill-fated ambition.

Human nature revolves around anecdotes from the past, experiences from the near antiquity and the burden of perspective laid down upon it. The greatest of great saints are not spared from the vices of the human mind, let alone commoners like you and me. This just leads to a philosophy that it's all meant to be. The humans are and are meant to be the strongest living creatures on Earth. No matter what humans will always find a way to survive. In a modern world, the jungle rule still survives. It is and always will be the survival of the fittest. Just like an Earthly contaminated raindrop needs the contamination to make the water mineral rich and fit for drinking. The human soul must remain contaminated for the ricochet of the Golden era after every Disorder.

~Ritwik Saraf Mechanical 4



-lppe 112

### The New Normal

"Arose a tide, beyond control a suffocation, a tyranny to the soul

A voracious traveller, the arena global commute stalled, populace immobile

Suffering unseen to millennials before world filled with mysterious gore

Lost lives, a scathed misery squandered hope, a pitiful livery

The virus, a disease callous, devastatingly adorned, in eternal malice

Economy maimed; medics staggered fuelled chaos, regimes haggard

Institutions padlocked, education compromised; once debated, virtual classroom, now despised

Interaction confined, emotions detained sundry goals of 2020, hitherto unattained

Stuck amidst the lonely walls connecting through virtual calls

Miles apart over shores and lands people connected via broadbands



"Families nurtured, through love and care united in togetherness with time to spare

Hustle relaxed; the rush mowed clamour raising, satiated abode

Redundant sound, calmly maimed Jailed within walls, introspection framed

Future; the impending ambiguous inner voices, more conspicuous.

~Aaron Pereira Mechanical 6



## Pause and Replenish

"Imagine a busy road, with everyone eager to reach their destination but due to a lot of traffic, we are all stuck and keep honking. So, what's the solution? Do we carry on with the noise or just be patient and breathe for a while? Definitely, stopping and waiting is the best option to get out of the situation. But what if we don't and let the situation worsen?

The result of such behaviour is that the traffic will not clear and will lead to more delay. And that is what we have been doing in the past. We just wanted to reach our destination without thinking about the consequences. Now the question is - How is the traffic situation related to our life? Starting from the morning, we wake up, get ready, complete our work and repeat the same schedule. We enjoy only on weekends and generally complain about the time. When we want to do something that will make us happy or something creative that is not related to our daily activities, we just suppress our desires and say, "I don't have time" and keep ourselves busy in the same tedious work. So, is there any way to stop complaining and do the stuff that we all really wanted to do? The answer lies in taking a pause from our routine and utilizing it. Sometimes, we are not able to find out the way out of problems and when we stop, brainstorm and try again, eventually we are able to find a solution. That's the magic of pause.

But the real problem is that we are afraid of taking pauses- we think taking it means stopping and wasting time and by that, things get worse rather than improve. But, it turns out that there were more aspects to it. So, this Covid-19 pandemic was the best period to take a pause as it caused a global lockdown that led to the postponing and cancellation of many events; it gifted us the time that we were short of. The pandemic brought a lot of problems; the entire globe was shut down, the streets were empty and industries were closed, but despite that, it came with a lot of opportunities. People were forced to live within their homes; there was a total shutdown. But this was also the best opportunity to restart.

"The word pandemic creates a negative vibe, but this pandemic has also brought along with it, a lot of positivity too. It taught us the value of family, people close to us, and the benefits of homemade food. We had time to think about ourselves, our health and life and to develop new skills. We discovered new ideas to do the same things, but by using different approaches.

The situation got worse with the days and every day we lived in fear. That's when we discovered that staying at home is the best shield that we can use to protect ourselves from the disease and hence felt safe. The situation brought a lot of problems with it, but we came up with the most unique solutions. We were not able to meet each other so we all migrated to virtual platforms that helped us stay together even when we were disconnected from the real world. And in this way, we enjoyed each other's company in the comfort of our homes and learnt new things.

Many people lost their jobs; they were stressed about it and it forced them to ponder over alternatives. And this turned out in the best possible way for some as many people started their own businesses either to get themselves out of the situation or follow their passion and succeeded with flying colors. People came out of their comfort level and moved forward to help each other, which taught us the value of humanity. Above all this, mother nature was revived and became almost as beautiful as she initially was.

This situation can be very well defined by the proverb, "Whatever happens, is for good". We all got paused and had time to see whether we were just a part of the flock or we can stand alone. In traffic, we wait to get a green signal so we can reach the desired destination but we forget to live in the moment and enjoy our journey. The situation before the pandemic was just like this traffic but as the light turned red, we stopped and savoured the moments. This taught us that waiting for the green signal was not life but enjoying the moments between the red and green signals was.

"So, pausing creates magic and by nurturing things they get more beautiful. For example, remember "Justice League"? The movie was not a big hit initially but after a pause it was recreated and now it is a success. In the same way, pandemic gave us a pause so that we can explore ourselves, see the beauty within us and finally be who we really are.

~Aparna Shrivastav EXTC 6



# Poverty is not just a lack of money

"In the Ghetto, a 1969 hit track of Elvis Presley, in a poignant way, captures the vicious cycle of poverty. Similarly, back home, we often tend to associate poverty to a movie like Ray's Pather Panchali or probably Slumdog Millionaire.

Popular notions, long cemented by movies and songs, are now being challenged by economists. In this very context, Nobel Laureate and economist Professor Amartya Sen remarked, "Poverty is not just lack of money." So, there is a need to reassess the definition of poverty. Poverty can be indicative of the lack of opportunities or personal liberties and freedom or good ethics and etiquette.

India celebrated its 74th independence day in 2020. Yet we, as a nation, continue to fight the demons that have been plaguing us post-independence. An article published by The New Indian Express in 2019 reported that crimes against the oppressed communities had risen by a whopping 21 per cent. Systemic suppression of the oppressed class is still a haunting reality in rural India. We, even today, stumble across news pieces that shed light on the horrors of manual scavenging and people illegally employed in this industry just to make their ends meet (mostly from the oppressed class). Poverty and the paucity of opportunities force the destitute into what is deign.

The Print in 2018 reported that domestic crimes against women were on the rise. Women, even in the 21st century, are confined to gender roles owing to the lack of opportunities for them to burgeon. We, as a society, often fail to provide a platform for adroit women to pursue their ambitions. Lack of representation of women in business and engineering fields is an accurate representation of dearth of fair opportunities for both sexes.

The aforementioned cases are affirmative of the scarcity of opportunities for women and the oppressed classes.

"Democracy is founded on the principles of freedom, equality and individual liberties. However, quelling the public dissent has become the new normal. Russian government has been accused of poisoning the opposition leader Alexei Navalny with a nerve agent Novichok.

India, under emergency in 1979, too was in a similar predicament. Political leaders were slapped with sedition charges for being vocal about the draconian laws being passed by the government. The murder of Gauri Lankesh and Narendra Dabholkar is a constant reminder of the lack of "true freedom of speech and expression in our country."

The Internet has brought us closer than ever. Human beings are more connected to each other, thanks to the advent of social media platforms. Yet, the human values are constantly decaying. The uncouth and unparliamentary language being used in the social forum can make anyone shrivel in disgust. It is quite antithetic because on one end we level acquisitions about Freedom of Speech being muzzled and on the other side of the spectrum we can witness the blatant misuse of the same.

Poverty of mind is a greater social evil than poverty in its conventional sense. An adage goes on "an idle mind is a devil's workshop." Impoverished mind can be a fecund ground of miseries. So, poverty is not a mere indicator of the lack of financial resources, but a lack of a sustainable ecosystem, that guarantees the welfare of all the citizens.

One can often look up to the Scandinavian countries or the Singapore model, which are (or were) close to ideal, if not ideal in overcoming the said pitfalls. Sustained long efforts by the governments in assuaging social evils will eventually help our country eradicate "poverty" in its truest sense.

~Digina Derose Computer 8

### Carpe Diem



" It was the 10th of March 2020, exactly a year ago, when I had been to a roadside tailor to get some fittings done. A fortnight hence, I saw the same guy, selling cloth masks to earn a living. At that very moment, he made me realise the true meaning of Carpe Diem.

2020; the year which brought upon humanity one of the biggest challenges. Covid 19 or the Coronavirus pandemic is how we started the then muchawaited decade. Rising economies, tourism and the growing world was masked in the early months of the year and life came to a standstill. Some of us may feel it to be the darkest year, the nightmare which turned out to become a dreadful reality. But in retrospection, was it actually so bad? I believe no.

The pandemic, as I perceive it, has been an opportunity. An opportunity to learn, to hone our skills, to demonstrate our talents and to support the ones in need. This has been a time, when home-made cookies turned into successful businesses and sweeping and mopping became the new cardio. Chai-time with the family became a daily with the background of chirps, the new song in cities. Health became a priority and Yoga came back to India again. Zoom and G meet became our all-in-one cafes and hangout spots, and we now understand emotions, of not just us but all.

Humanity from the very beginning of its existence has faced crises from time to time, in the due course of its evolution. Today, we are at a highly evolved stage, where connectivity of all sorts is possible, be it physically or virtually. This has been the most prepared we have ever been as we battle a pandemic. And thus, this time we were prepared. Prepared to do something better than being in despair and desperate. The major aspect of the pandemic has been the attention given to the emotional and mental well-being of the ones quarantined in their homes. A world full of unpredictability came up with the best home-made cakes, the most aesthetic handicrafts and more importantly, pure conversations, which brought people closer, despite being far away."

From virtual dates to family meetings, this time we didn't miss on things, but did them. We had chit chats with relatives, spoke to those long-lost friends, connected with new people; some things which we would have never done had this virus not locked us down.

What should we take with us from the pandemic? I wish I could say everything but the virus, but the virus won't leave us soon. What we should take with us are the lessons of seizing the opportunities, of being solution-oriented individuals and putting to execution the brimming ideas of ours. The pandemic taught us that we are empowered to do whatever we wish to, we just need to give it a go. Taking the first step is what has held us back for so long and the pandemic taught us to let go of it and dive into the opportunity. Mistakes and failure may happen, but they taste better than the regret of not having given a shot. The future is definitely uncertain, but the rays of hope shine upon those who understood the true essence of the phrase-

"Seize the Opportunity"

~Tryambak Gour Computer 8

# Oasis The Beauty Of Suffering Together

"A global pandemic has just unrolled itself among us and it seems that the toll that we have paid is huge during this pandemic. Extraordinarily, scientists have made vaccines much quicker than they had predicted they would. And this pandemic will pass, they always do. There will be a sense of the world that lived before and the younger folks would be in awe and puzzle of these harsh times. Then comes the time when we ask ourselves questions such as "did we bring this upon us or do we deserve this?", and I want to be simply honest with you today, we are not the virus. Although humans are blinkered, unforgiving, vengeful and selfish, humans can never be the virus. These tough periods always show us why the human race and humanity is going to survive, no matter what comes in its way.

Doctors sacrificing their lives, pilots risking their lives, youth running relief campaigns, teachers giving their best and the leaders working day in and out to stabilize their organizations, all of these incidents where people come together and risk their lives for the betterment of others show us why humanity isn't doomed. All of us have lost someone during this pandemic and there's no denying that we had lost our senses at some point just because the pain wasn't bearable. Now the question is "how did the pain go away?" Wasn't the process of grieving dawdling? But we are pleased that it happened because it made us sage. The human life enclosed within its hidden powers of humanity remains bound by the cycle of good. The give and take of good deeds among humans that contributes to the sharing of all the good that happens around the world never ceases to exist because of the intentional or unintentional transfer of good karma among human beings.

The grace of the human race isn't their intelligence, but their sense of togetherness that arises at the time of calamity. This is the warmth that binds together humanity as a philosophy, knowingly or unknowingly.

The central cure of mental illness is-Company as said by some great psychologists. Covid-19 has definitely taught us why we need to be in constant communication with others, how isolation is harmful for us, how a community would risk their lives to save one life. Remember the tragic Karipur accident where a plane skidded off a table-top runway during this Covid pandemic. Yet the people around, came in rushing to help without worrying about the virus infecting them. These courageous moments show us why there can never be suffering when we are together and why suffering together is beautiful.

A human is cruel and they never fail to show that. Deep down in our hearts we just want our family to be safe and healthy and each and every one of us would go beyond all limits to save those who we love. In this process of protecting our own taken so seriously, we forget that other people do exist. Once we realize the sufferings of others, we act on it, we try to fix it, we try to rebuild it, like the world is one family and all humans are one, standing strong together. The corona virus gave us a chance to introspect and made us realize our wrong-doings, giving us an opportunity to rebuild what we destroyed. Covid indeed was the mild aspirin that we all needed to realise and rebuild the oasis we all share- Earth..

~ Dany Poly Computer 6





# INTERVIEW SECTION

### **INTRODUCTION**

Paul Chalissery has done his civil engineering diploma from Father Agnel Vashi, his MBA From St Xaviers College and is currently working in McSun which is an interior designing company and has a working experience of over 30 years in different industries such as civil construction, Sales, and marketing as well as in the interior designing field. His passion for traveling, listening to music, photography as well as weight lifting has helped create a personality whose presence is unavoidable once introduced.



#### **INTERVIEW**

Q1 What was the main reason for the change in passion from construction engineering to interior designing?

Ans: It was the need for designing and a manner to express my creativity as well as the fact that many of the projects in interior designing is for short durations of time. Before shifting into interior designing, I have shifted to sales and marketing which was actually my passion and excelled in that field as well. I felt the need to further my horizon realizing that my diploma wasn't enough knowledge that was needed to excel in this industry.

Q2 How has your degree in engineering affected the course of your life?

Ans: Back then while pursuing the degree it didn't affect me much but now that I am into the interior and contract to design defiantly the foundation and basics of engineering I learned such as civil drawings and mechanical drawings. Currently, I am doing many audits on different structures and the knowledge I learned has been immense in helping me understand different structures

Q3 What differences do you see between the mind of an engineer and an interior designer?

Ans: An engineering mind looks for the most cautious and calculated approach for any problem or project whereas an interior designer mind is of innovation. The similarity between the both comes in project management and administrative skills.

Q4 Do you remember the challenges you faced immediately after your diploma and the transition to sales and then into interior designing?

Ans: There were a lot of challenges because I went from civil engineering to sales and because of the transition many people didn't expect an engineer to do well in sales but once you start excelling in sales or any other field which you are passionate about, then people recognize you for what you had done and what you are doing eventually.

Q5 How was college life for you in Father Angels as you are alumni from our colleagues from the 1980s and what do you remember the most looking back?

Ans: Looking back then, the new college was being set up and we were outside most of the time for our practicals. The staff was very warm to us. The principal and father were very friendly and helped us all by pushing us harder to complete our engineering degree as we were a naughty bunch of kids. I remembering doing a lot of practice in the form of carpentry and masonry work in the workshop as well as the mechanical work which today has made a lot of difference in my life.

Q6 What would you suggest to one to adapt to change and keep an open mind to the changes around?

Ans: There is no fixed formula for open-mindedness. One needs to be humble, know their self-worth and be open to all the jobs around them be it the workspace or at home. It's tough but one needs to be open and accepting to the suggestion and opinions of people around them and not keeping age a factor. The moment you feel you know everything that is there to know, the beginning of your downfall has begun as you have blocked the allowance of more information around you. Even though I am 50+ years old, I have tried my level best to be accepting of knowledge, even if it comes from my nephew or my son I try my best to give it the same importance as I would give my seniors.

Q7 Do you have any motto that you live by for your work ethic?

Ans: "Be true to yourself and don't cheat anyone. Learn to be simple and grounded. Don't follow the money as money will follow you. There is no second currency for handwork"



Q8 As there is an increase in the number of interns who are being a part of the industry, what do you feel are some aspects about themselves that they should work on?

Ans: As an intern, they should be clear with their basics and have the appropriate skills and make sure that they are well educated about the field and post they plan to work in. One should accept any kind of job they are tasked with as it will help them realize in the future the different tasks the people around them have and how do they deal with them. One should also be quite open-minded. The shortcomings of many interns and engineers is that they think they know it all about the field and rather would not like to soil their hands and do the practical work.

Q9 What part of the interior designing industry motivates you on a daily to work and give your best and keeps you passionate about the work you are doing?

Ans: Every job is a different job, Every project is a different project, every client is a different client.

One is not forced to do routine work. In civil engineering, constructing buildings because a routine after a few years. It's a long-term project that could take 1 to 3 years to complete the construction of a building or colony. Interior designing has a much quicker pace of 1-3 months and the job is complete and you move to the next project.

Q10 What are some lessons about life that you have learned after working for so many years in different industries?

Ans: I have learned to be patient with the people I am around, the clients, and the laborers. The anger I once had when work was not being complete as per my expectations has decreased.

The need for handwork has been taught to me as I have seen around me that if you work hard and smart, success will follow and so will capital

Q11 What would you suggest to one to adapt to change and keep an open mind to the changes around?

Ans: There is no fixed formula for open-mindedness. One needs to be humble, know their self-worth and be open to all the jobs around them be it the workspace or at home. It's tough but one needs to be open and accepting to the suggestion and opinions of people around them and not keeping age a factor. The moment you feel you know everything that is there to know, the beginning of your downfall has begun as you have blocked the allowance of more information around you. Even though I am 50+ years old, I have tried my level best to be accepting of knowledge, even if it comes from my nephew or my son I try my best to give it the same importance as I would give my seniors.



Q12 How do you cope with failure and deal with the lows in life? Ans: Failure again depends on one's emotional balance, if the individual accepts failure as a part of life and road to success then its easy to live through that phase of life but if one looks at failure as a permanent failure and that hell has broken loose and you have failed in life already, then all they are going go to do is have even more excuses for their downfall. In failure, if you blame others for it other than yourself then I would say that it's a step closer to being a coward in life.

One has to find fun in failure because it shows that you tried and put effort and that's when progress begins in one's mind. I always tell my fellow workers, that the tunnel has an opening no matter what, how far it could be but there is one and thus it's a tunnel, failure is just like a tunnel with success at the end of it. One much try their hardest to not allow themselves to sit in the tunnel.



Q13 What advice would you like to give students who are in engineering colleges right now or planning to pursue a degree in engineering?

Ans: I would start by saying it's tough when you get out of college as the competition is going to get really tough and you should be ready to do the grassroots tasks as those years will help you learn and be able to lay your foundation in the industry. To reach the top floor of an office building one must start from the basement and not the fifth floor. Try your level best to be open-minded or try building an open-minded mindset. If possible try to do internships around you to get in the grip of the demands and the skills the industry asks of you. Find your passion and what part of the industry you find yourself in and work to achieve that goal.

Q14If someone wishes to get into interior designing after doing their engineering degree what suggestion would you like to give them?

Ans: I would say before making the transition, go back to your basics and refresh your mind on it as a simple way to separate yourself from the majority of the others looking for jobs. You will earn less at the start as you are shifting industries with no experience so expect to have a lower revenue stream as compared to your friends and other working friends but always remember that you are following your passion at the cost of earning less. You will need to work harder than the others as well as you will need to build up your name in the workspace and prove your worth.

Interviewed by, Bryan Francis Computer SEM-4

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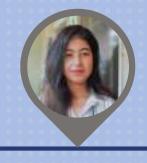


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