

## Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

#### **2.3.1 Student Centric Methods**

Sr. No.	Docu	uments	Page
			Nos.
1	Expe	eriential Learning	
	1.1	Project based learning	
		a) Consultancy Projects	2-3
		b) Mini Projects/Major Projects	4-6
	1.2	Activity based learning	
		a) Skit, Roll Play	7_
		b) Model Making	7
		c) Educational Games	8-9
		d) Brain Storming Sessions	10
	1.3	Field based learning	
		a) Industrial Internship	_11-13
		b) Industrial Visit	14-16
2	Part	icipative Learning	
	2.1	Cooperative Learning	
		a) Think-Pair-Share Activity	17
		b) Poster Presentation	18-19
		c) Survey Form	20
		d)Technical Paper Reading	21
	2.2	Paper presentation and publication	22-23
3	Prob	olem solving methodologies	
		a) Problem based learning	24-29
		b) Student's Participation in National and International	30-31
		Competitions	
		c) Students' Participation in Technical events at IITB	32
		d) Students' Score Cards	33-37
		e) Internet/Computing Facility for the students	38
4	ICT	Tools	
		a) YouTube Channel	<u>39</u>
		b) Animations & Simulation Video	40
		c) Sharing of Notes & Study Material	41
		d) Online Quiz and Online Assignment (Google Classroom)	42
		e) Demonstration Videos	43
		f) Virtual Lab	44_



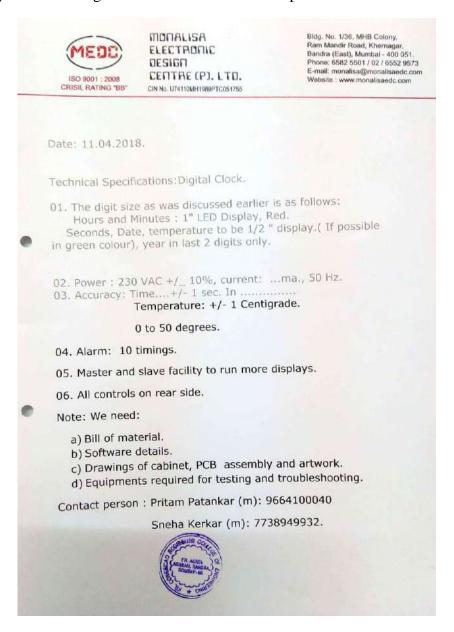




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**Experiential Learning:** Experiential learning is an engaged learning process whereby students "learn by doing" and by reflecting on the experience. Experiential learning activities include Project Based Learning, Activity Based Learning, Field Based Learning.

- 1.1. **Project Based Learning:** Consultancy Based Projects, Mini Projects, Major Projects, Subject Projects are the activities conducted under Project Based Learning.
  - **a)**Consultancy Projects: The institute involves Students in the Consultancy Based Projects. Following document is one of the example.



**Consultancy Project** 







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## **Department of Electronics Engineering**

Fr. Conceicao Rodrigues College of Engineering

Date: 15/05/2017

Miss Pritam P.

Director HR,

Monalisa EDC Pvt. Ltd.,

(0):91-22-65825501/022-65529573

(M):96641 00040

Subject: Quotation for consultancy charges for the Real Time clock design

Dear Madam,

With respect to our discussion and the mail interaction we are pleased to inform you that the project commercials are as given below:

Sr.	Description	C+
No.		Cost
1	Design and Development cost	1,20,000
2.	Man power cost	1,70,000
	Total cost tional recurring cost for the PCB and e dumping o	2,90,000

The payment terms and conditions:

25 % advanced at the beginning of the said project. 50% at the time of demonstration of the working model 25% at time of handing over the design, program and finished product

The work is expected to be complete by 30<sup>th</sup> June 2017 worst case delay not exceeding 15 days after the scheduled date.

I hope that you will go through the quote and let me know the consent for the same.

Following Students from our final year Electronics Engineering will be working on the Project:

- 1) MAMANIYA KARAN RAJESH
- 2) MOMIN HAMAD MOHAMMED UMER

Thanking you,

Yours faithfully

Dr. Deepak V. Bhoir,

Professor and Head



**Consultancy Project** 







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#### b)Mini Project/Major Project:

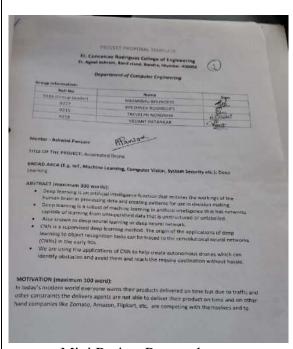
Students acquire a deeper knowledge through active exploration of real-world challenges and problems through mini projects and major projects.

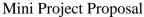
Students in a group of 2 to 4, carry out mini projects in 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> semesters and a major project in 7<sup>th</sup> and 8<sup>th</sup> semester. The project idea and feasibility is first presented by students in the form of a proposal document. Faculty teams review the project ideas based on feasibility, innovations, etc. After the proposal is approved, students work on the project under the guidance of the assigned faculty members and complete the work in one or two semesters depending on the complexity of the project. The activity engages the students in solving a real-world problem and/or answering a complex question.

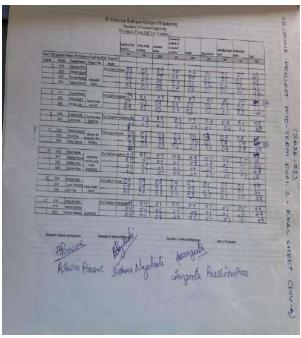
The projects are evaluated in three phases: mid-term presentation 1, mid-term presentation 2 and the final examination.

In mid-term presentations the progress of the project is evaluated by a group of teachers.

In the final examination the external faculty is invited to evaluate the project work who also gives a suggestions and feedback to students which helps in improving in the further semesters. Following are the pictures of proposal, mid-term assessment sheets, and feedback of a sample Miniproject.







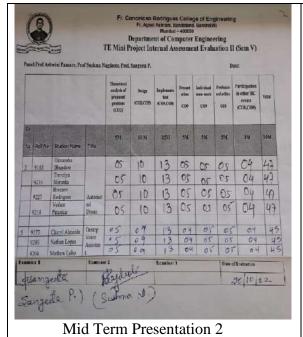
Mid Term Presentation 1







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Student Performance Analysis Put Tick as por your Observation/Received Analysis Put Tick as por your Observation/Received Analysis Put Tick Put Tic		(1)
Coultie of problem and Chroy Linear-divisions in solitoria Control Educations and Societal Impact Pull functioning of working modules par stated regulatments Effective upon of kells and	(2)	-
2 Linearwells series in solutions 1 Cost-efficationness and Socient impact 4 Paul functioning of working module as pur miscal regularizations 5 Effective use of skill acts		~
Cost-efficationness and Societal impact     Pull Americaning of machine model as put sincer regularization     Effective use of skill arts		
Pull functioning of working model as per essent regularments     Effective use of skill sets		~
		-
6 Effective use of standard engineering name	1	12
		-
	1	12
Contribution of an in individual's as a number or leader     The clarity in secure and oral communication		am
9 Overall performance	A	100
Project line: Ct. O. 1	4	1
Project Pine: Dycone, Autoconficer with fight Oplinese Lies	100	
2 Innovativeness in solutions		
3 Cost-effectiveness and Societal Impact		1
4 Full functioning of working model as per stated requirements	2	100
5 Effective use of skills ou		
	4	-
7 Contribution of an individual's as member or leader		
Clarity in written and oral communication	1	
Overall performance		
		9









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Example of Mini Projects
B.E COMPUTER SEM VIII (2020-2021)
Subject: NATURAL LANGUAGE PROCESSING

Fr. Conceicao Rodrigues College Of Engineering B.E. (Computer) (semester VIII) (2020-2021) Subject: Natural Language Processing (NLP-CSDL08012)

Roll	Name of the Student	Mini Project Title
No.		
	Orvil Dsouza	Sentimental Analysis using nltk
	Sela Grace Koshy	Research Paper Summarization
8312	Abhishek Ahirrao	Extractive summary generation using nlp and neural network
8316	Princeton	Question Generation and Answering
8317	Amurto Basu	Keyword Suggestion to change Sentiment Polarity
8318	Shubham Bhate	Blog Shorts (Text Summarization)
8319	Simran Bindra	Spam Classification
	Carol Sebastian	Question Answering
8321	Kevin Ruffin Cheruthuruthy	Fake News Classifier using NLP
8322	Chowdhury Pratik Vinayak	Medical Analytica
8323	Rahim Chunara	Speech to Emotion Recognition
8324	Ariane Correa	Document Summarization
8325	Gavin Correia	speech to emotion detection
8326	Pratik Joseph Dabre	SMS spam detection
8327	Jason D'Costa	Resume Summariser
8328	Mahesh Desai	Voice Bases Visual Acuity Test
8329	Prince Dmello	SMS Spam Detection
8330	Ria Dmello	Twitter Sentiment Analysis
8331	Valiant Dmello	News Categorization
8332	Mario D'sa	Joint Entity and Relation Extraction using Transformers
8333	Elvis Dsouza	Medical Analytica
8334	Sherwyn D'souza	Pharma Chatbot using RASA
8335	Simran Dsouza	Resume Screener
8336	Susan Vincent Dsouza	NLP Spell checker
8337	Emmima Gnanaraj	Spam Classification
8338	Calista Luis Fernandes	Spell Checker and corrector in NLP
8339	Riya Gupta	Quora Question Pairs Similarity: Tackling a Real-Life NLP Problem
8340	Kevlyn Kadamala	Research Paper Summarization
8342	Abhishek Kollat	Resume Screener
8343	Sarvesh Kulkarni	Keyword Suggestion
8344	Mohit Kunder	Spam SMS identification
8345	Reynold Lopes	sms spam detection
8346	Elita Elroy Menezes	Research Paper Summarization
	Leesa Menezes	Spam Filtering
8349	Mishra Shaileshkumar	Document Similarity using NLP

#### LIST OF MINI PROJECTS







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#### **1.2 Activity Based Learning:** The faculty adopt active learning through the following activities:

- Debates, group discussions, skits/role play, movies
- Model making: Machining Science and Technology,
- Hardware implementation as well as simulation of mini projects, presentations, case studies etc.
- Educational Games, Brain Storming Session

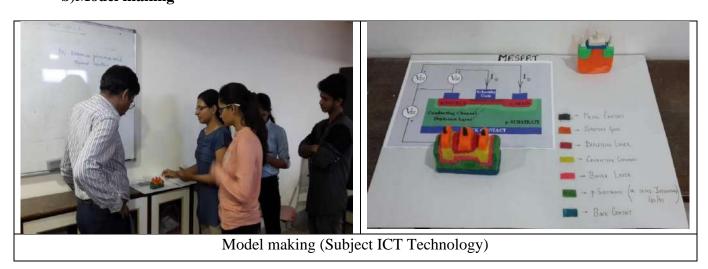
a)Skit ,Motivational Movie





**Motivational Movie** 

#### b)Model making









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#### c) **Educational Games**

It is an established fact that educational games improve the process of teaching and learning. They have the potential to inspire learning. And they can help players improve coordination and visual skills. Also, Game-Based Learning plays important role in teaching by making students to collaborate, communicate, interact and work in teams.

A variety of educational games are designed specifically for the purpose of educating the students, can motivate self-learning and problem-solving skills to a great extent especially for team building and leadership exercises.

**Subject- Business Communication and Ethics Semester- V** 

Faculty-in-Charge- Dr. Khushbu A. Trehan

Example-

Mine Field / Watch your step.

Winner/Loser

Team building activities (Balloon Activity)











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Winner/Looser







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#### d) Brainstorming Sessions

Brainstorming sessions is usually group activity conducted in pursuit of new ideas (i.e. what happens after it ends). A typical brainstorming session brings people together into the creative process, and increases the social nature of the activity.

Additionally, creative brainstorming works to include different perspectives of the team members and improves the team's ability to think outside the box. Thus, it is an excellent way to drive innovation.

Example- Group Discussion, Case Studies Discussion





**Group Discussion(Subject : Business Communication and Ethics)** 







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- **1.3 Field Based Learning:** Field-based learning allows the students to contextualize their learning experience in a real-world setting. For understanding the work environment in the industries, industrial visits are organized every academic year, both at department and Institute level. All departments encourage the students to undergo internships/summer training at various Industries.
- a)Industrial Internship: Following are the initiatives taken by Institute for supporting the students to get Internship offers at the Industry.
- i)Internship Expo: TED-x CRCE organizes Internship Expo every year ,where many Technical and Non Technical companies visit the Campus. The expo gives the students an opportunity to have a close interaction with the employers of the Industry, and understand the various technical skills required by the Industry. The students are then interviewed and successful candidates get an opportunity to intern at these Industries.



Internship EXPO organised by TED-x CRCE







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ii)Students are encouraged to Participate in various company initiated Hackathons like JP Morgan, TIAA and eventually students who successfully compete in these Hackathons, get the opportunity to Intern at these Industries, few of them also get placement offers in the same company. Following is the Internship sample proof:

TIAA Global Business Services (India) Private Limited Registered office: 7th Floor, Winchester Building Powai Business District, Powai Mumbai, Maharashtra - 4000076 CIN: U72901MH2016FTC279876 Phone: +91 22 62298000



Date: 1-Sept-2022

Employee Name: Aaron Dsouza Employee ID: 10004436

Internship Completion Letter

Dear Aaron Dsouza,

This is to certify that you have successfully completed your internship with TIAA Business Services (India) Private Limited during the period from 1-June-2022 to 22-July-2022

We wish you the very best in all your future endeavors.

If you have any queries, please contact us at indiasharedservices@tiaa.org

Thank you.

For TIAA Global Business Services (India) Private Limited.

Authorized Cignotoni

Certificate for Internship at TIAA







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iii)Some of the students who successfully compete at National Level Competitions like e-yantra, eyRC organised by IIT-Mumbai, get an opportunity to do Internship at IIT-Mumbai. Following are some of the examples of Students who got Internship offer at IIT Mumbai.



ERTS Lab
Department of Computer Science and Engineering
Indian Institute of Technology Bombay,
Powai, Mumbai-400 076.



Date of Issue: August 19th, 2021



This is to certify that Brendan Lucas, student from Fr. Conceicao Rodrigues College of Engineering, Bandra, has undertaken Internship at e-Yantra, IIT Bombay working on a project entitled: eYLAD: e-Yantra Learning Analytics Dashboard during the period from 20th May 2021 to 8th July 2021 and has successfully completed the same.



Engineering a better tomorrow

Prof. Kavi Arya
Principal Investigator, e-Yantra
Professor
Department of Computer Science at

Professor
Department of Computer Science and Engineering
Indian Institute of Technology Bombay



Department of Computer Science and Engineering Indian Institute of Technology Bombay, Powai, Mumbai-400 076.



Date of Issue: September 19th, 2022

#### INTERNSHIP CERTIFICATE

This is to certify that Glenn Mendonca, student from Fr. Conceicao Rodrigues College of Engineering, Bandra has undertaken Internship at e-Yantra, IIT Bombay working on a project entitled: eYCoin during the period from 6th June 2022 to 23rd July 2022 and has successfully completed the same.



Prof. Kavi Arya Principal Investigator, e-Yantra

Department of Computer Science and Engineering Indian Institute of Technology Bombay



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**b)Industrial Visit:** : For understanding work environment in the industries, industrial visits are organized once in a year at Institute Level and Department Level.

## FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING Office of Cultural & Student Affairs



#### CENTRALIZED INDUSTRIAL VISIT REPORT

#### CHANDIGARH & HIMACHAL PRADESH FROM 27™ DECEMBER 2019 TO 4™ JANUARY 2020

#### Overview & Introduction

The much-awaited annual industrial visit of Fr. Conceicao Rodrigues College of Engineering, Mumbai took place with a centralized conglomerate of staff & students to Chandigarh, Shimla & Manali from the 27th December 2019 to 4th January 2020 with proposed industrial visit sites scheduled at Rajiv Gandhi Information Technology (IT) Park at Chandigarh, Micro Turners Group at Baddi, (Himachal Pradesh) & Jay Bee Transformers at Panchkula (Haryana). The industrial visit was organized by the technical councils of the college viz. IEEE-WIE, SAE, ACM & CSI who handled every detail – right from the planning to execution. Leading the group were student Ricky Stanley of B.E. (Electronics Engineering), Akshay Dixit of T.E. (Production Engineering) & Sahil Gupta of T.E. (Computer Engineering).

A total of 145 students, mainly comprising from second year, third year & final year engineering from all four branches viz. electronics, production, computer & information technology were accompanied by the following staff members:-

- Dr. Brijmohan S. Daga, Professor & Head, Computer Engineering Department
- Dr. Nilesh M. Patil, Assistant Professor, Information Technology Department
- Prof. Unik B. Lokhande, Assistant Professor, Information Technology Department
- Prof. (Mrs.) Supriya S. Kamoji, Assistant Professor, Computer Engineering Department
- Prof. (Mrs.) Dipali Y. Koshti, Assistant Professor, Computer Engineering Department
- · Prof. Jayen Modi, Assistant Professor, Electronics Engineering Department
- . Mr. Yogesh Chavan, Non-teaching staff (Peon)

The complete arrangement of the tour was outsourced by the students' council to Mr. Nitish Parab of 'Around the Globe (ATG)' holidays who accompanied the group along with four of his associates. The journey began on morning of 27th December 2019 with the entire group assembling at Bandra Terminus Railway Station to catch the 12:45 pm Garib Rath Express (12216) which disembarked at Sarai Rohilla Railway Station, Delhi next day at 12:30 pm. The return journey was from Hazrat Nizamuddin Railway Station, New Delhi by Garib Rath Express (12910) on the afternoon of 3th January 2020 at 03:35 pm. The whole group reached Mumbai safely in the late morning of 4th January 2020.



Report on Annual Centralized Industrial Visit by IEEE-WIE, SAE, CSI & ACM Chandigarh & Himachal Pradesh – 27th December 2019 to 4th January 2020

3

#### **Industrial Visit organised at Institute Level**







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#### FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING Office of Cultural & Student Affairs

#### Objectives of Industrial Visit

Usually the underlying objective of any industrial visit is for students to gather a first-hand experience of how the professional working methodology, various industrial processes, machinery & other related equipment are in place so that once they enter into the professional field, after the completion of their respective courses, so these industrial tours are an effort to bridge this gap of practical exposure. Typically benefits of any industrial visits are generally (but not confined to the following):-

- It help students gain first hand information regarding functioning of the Industry
- Provides an insight into the real working environment of the Industry
- · Helps them to see their future place in the working world
- This also serves as a relation building process between institutes and industry
- Many of the companies also use it as tool for building brand awareness
- Helps to enhance their interpersonal skills and communications
- · Helps to understand the do's and don'ts of the industrial practice

#### Wisit to Visions Software Pvt. Ltd. (Chandigarh)

Visions has a creative web design and software development team in India proudly servicing clients worldwide. The company specializes in web design & development, customized standalone software development as well as Mobile Applications. Their expertise includes Magento, MEAN / MERN Stack, React Native development, Python, UI / UX Design, PHP, Hybrid Mobile Apps across Android & iPhone platforms. With over two and a half decades of work experience in technology Visions Software Pvt. Ltd. is focused on understanding client's requirements, providing quality work & being result oriented.





Report on Annual Centralized Industrial Visit by IEEE-WIE, SAE, CSI & ACM Chandigarh & Himachal Pradesh – 27th December 2019 to 4th January 2020

4







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#### FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING Department of Electronics & Computer Science (ECS)

#### Industrial Facility Tour & Video Demonstration

After the highly informative session on introduction to robotics by Mr. Deepak Balakunderi, the group enjoyed a hearty lunch courtesy of the organization. Later in the afternoon, the company engineers took the students for a brief tour of the small but well-equipped industrial facility. They witnessed real-time & real-life videos of various industrial robotic systems inaction particularly in the automotive industry. The company engineers also briefed the students about the various aspects of using industrial robotics systems – right from planning, system designing, layout & implementation to the actual operation & programming. This activity was very well received by the students since it widened their horizon & gave them valuable insights on the recent advances & technologies in industrial automation systems.





#### 7. Practical Demonstration of Industrial Robotic Systems

The main attraction or the highlight of the industrial visit was a practical demonstration of their existing industrial robotic systems to the entire group. Students & staff members were requested to organize into discrete groups wherein each batch was guided to a robotic workplace by an engineering staff of the company. They thoroughly explained each & every robotic system present in the facility – the structure, configuration, electronic & mechanical components, power supply, tools & other implements, programming & system communication. This was certainly the best phase of the visit since the staff & students got to observe the robots in actions – something they were missing during online classes.



Industrial Visit organised by Electronics and Computer Science Department







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- 2) Participative Learning: Following are the activities conducted under head Participative Learning:
- **2.1Cooperative learning**: Students work together to maximize their own and each others' learning through think pair-share, poster presentation techniques, Survey Form
- a)Think-Pair-Share Activity: Think-Pair-Share (TPS) is a cooperative structure in which partners privately think about a question (or issue, situation, idea, etc.), then discuss their responses with one another. As a relatively simple structure that can be implemented quickly, Think-Pair-Share can be incorporated into almost any form of instruction. It is particularly useful for actively involving all students during lectures
  - Topic name: NAND-NOR Realization Year: [2019-20]

  - Learning objective = Upon competition of this activity students will be able to design any boolean
  - circuit using universal gates NAND-NOR. Activity time duration = [30 mins]
  - Strategy used = Think-Pair-Share Planned Date: 18/7/2019

Actual Date: 19/7/2019

Outcome: Design the network using IP addressing and subnetting. (Apply)

Activity: Designing network using IP addressing and subnetting

		ming network using if addressing and subnetting.		
Step no.	Time (mins. )	What teacher will do	What student will do	Rem arks
Think Phase	5 mins	Ask questions Think Question:  For a given problem design circuit using basic gates:  You are given the responsibility of building an automatic voting machine. — Assume there are 2 candidates. — Assume there are 3 voters, everyone gets a single vote. — The candidate with the most votes wins. • What logical variables would you use? Can you write a logical expression, which evaluates who wins (True = Candidate A, False = Candidate B)?	Answer the questions using their previous knowledge	
	3 mins	Explanation of above question	Listen and relate to their answer	
Pair Phase	6 mins	Ask Pair question 1) Implement above design using Basic gates.	Make a pair and brain storm to solve the given question	
Pair Phase	6 mins	Pair Question 2) Implement above design using only NOR Gates	Make a pair and brain storm to solve the <u>given</u> question	
Share phase	10 mins	1) Ask students(1/2pairs)to share their answer 2) Teacher comments on solution presented. 3) she will disclose correct solution, if needed	a) Other Students will compare their solution with solution being presented b) student	

TPS Activity for Digial Logic Design and Analysis (Academic Year :2019-20)







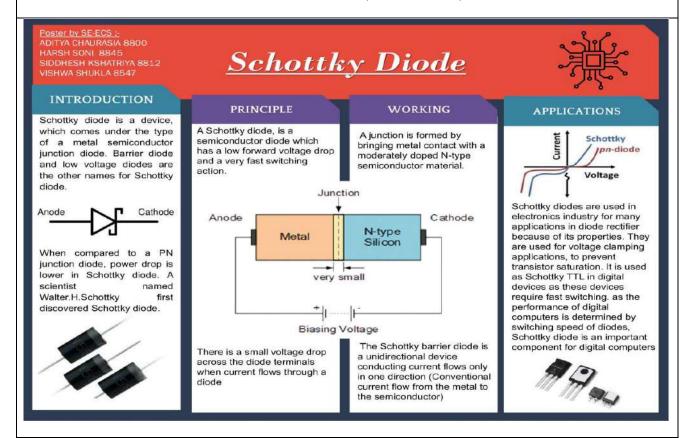
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**b)Poster Presentation:** In some of the subject's Faculty conduct Poster Presentation activity on a particular topic. Groups are formed and students are assigned a Topic from syllabus. Following is the example of Poster Presentation activity conducted in the Subject Electronics Devices (Sem III).





**Poster Presentation(Offline Mode)** 



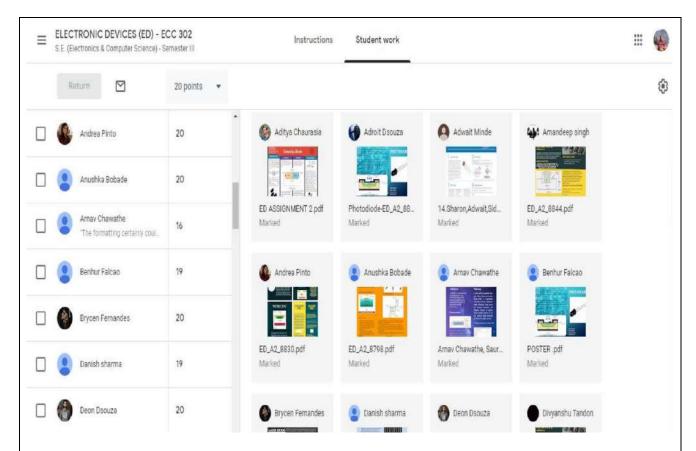
#### Sample Poster







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Poster Presentation conducted Online in the Subject Electronic Devices SemIII (Branch ECS)

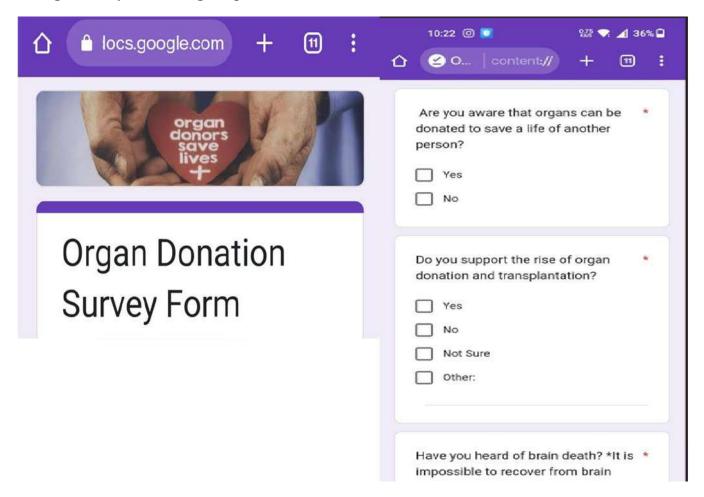






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c) Survey Form: In Some of the Projects the students take the initiative to create a "Google Survey Form" to get inputs from the Stakeholders.



Google Survey form for the Project "Organ Donation and Transplantation Website"







### Fr. Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

**d)**Technical Paper Reading: Technical Papers were uploaded on the Google classroom by the faculty and students were told to refer to the Technical Paper for advanced Topics. Their findings on the Research Paper were evaluated through Group Discussion, Assignment Questions, Presentations.

Fr. Conceican Rodrigues College of Engineering

Department of Computer Engineering

Class- TE-COMP(A) Subject – Mobile Computing

Name of the teacher: Prof. Dipali Koshti

Academic year: 2021-22

#### Innovative Teaching Learning

To improve the students' learning experience innovative learning methods <u>were\_implemented</u> in the subject Mobile Computing semester III (year 2021-22).

Subje	ct Mobile Computing sem	ester in (year Lozz Lz).		
Sr. No	Topic	Teaching/Learning method	Benefit to students	Supporting Doc
1	GSM <u>Architecture, A</u> 5 Algorithm for GSM security	Shown and explained informative videos during lecture	Complex topics are hard to_understand and realize. Informative videos in 3D_ belp students correlate theory with the animation shown in the video	Video links are given below
2	Quiz on each <u>module</u> <u>plus</u> additional practice quiz for weak learners.	Online Quizzes	Online quizzes help <u>assess</u> <u>students'</u> knowledge about a particular topic and motivate and engage the learner.	Quiz uploaded on google classroom
3	Micro and Macro mobility	Technical paper	Students were told to refer to technical papers for advanced topics where the material was not available in the reference books.	Uploaded in google classroom

Informative Videos (Shown in the classroom and same is uploaded in google classroom) Video

#### Links:

Video 1: GSM Architecture - YouTube

Video 1: A5/1 Algorithm (CSS) - usamazfr96-120 - YouTube Video 3: https://nptel.ac.in/courses/106/106/106106167/

#### Technical paper:

[1] Josep Mangues Bafalluy et al., "IP mobility. Macro mobility, micro mobility, quality of service and security", ARTICLEP, 2018.

[2] LTE-Advanced Technology Introduction White Paper

[3] Overview of LTE-A Technology, S. Kanchi, S. Sandilya, D. Bhosale, A. Pitkar and M. Gondhalekar... "Overview of LTE-A technology," 2013 IEEE Global High Tech Congress on Electronics, 2013, pp. 195-200, doi: 10.1109/GHTCE.2013.6767272

sibility: Investigate







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**2.2 Paper Presentation and Publication:**Following is the list of sample Papers published by Students in Conferences and Journals.

Sr.	
No	Title of Publication, Conference and Journal
1	Sujata Deshmukh, Bhushan Patil, Ketaki Joshi, Chinmay Gaonkar, Ms. Prerna Pallan, Sumedh Bhatkar, "A Novel Method For IOT Based Smart Traffic System", Industrial Engineering Journal, Vol. XV & Issue No. 06 June – 2022-UGC approved Journal
1	Khasgiwala, Y., Castellino, D.T., Deshmukh, Sujata," A Decentralized Federated
	Learning Paradigm for Semantic Segmentation of Geospatial Data", International conference on Intelligent Computing & Optimization. ICO, In: Vasant, P., Zelinka, I., Weber, GW. (eds), 2021. Lecture Notes in Networks and Systems, vol 371. Springer,
2	Cham, 01 January 2022, <a href="https://doi.org/10.1007/978-3-030-93247-3_20-Scopus">https://doi.org/10.1007/978-3-030-93247-3_20-Scopus</a> indexed
3	Sujata Deshmukh, P. Rede, S. Sharma and S. Iyer, "Voice-Enabled Vision For The Visually Disabled," 2021 International Conference on Advances in Computing, Communication, and Control (ICAC3), 2021, pp. 1-6, doi: 10.1109/ICAC353642.2021.9697125- Scopus indexed
3	Sujata Deshmukh, Candida Noronha, Lizel Farnandes, Gini Chacko, "Virtual E-mail
4	Assistance for The Visually Impaired", IEEE Conference on Technologies for Future Cities 2021 (CTFC 2021), 8th & 9th October 2021.
	Sujata Deshmukh, Amurto Basu, Sarvesh Kulkarni, Shubham Mishra, Prashant Deshmukh, Bhushan Patil," Disaster Damage Assessment of Satellite Images Using Transfer Learning With Fine Tuning", Journal of Engineering, Project, and Production
5	Management, 2022-Scopus indexed [Accepted through RGIT ICEI4.0]
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	Conventional Cooling in Manufacturing", MCT RGIT's International Conference on
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#### 3) Problem Solving Methodology:

a)Problem Based Learning: Due to the quick development and active changes in the fields of science and technology, it is necessary to go beyond the traditional curriculum and investigate the most recent engineering achievements. Enrolling in numerous technical councils such as Team Vayushastra, Team Robocon, Team Abadha and Project Cell(E-yantra IITB initiatives) etc, provides students with opportunities and broad exposure to the dynamic world of practice. Participating in various projects, activities, and events provides students with hands-on learning opportunities. Through additional design-based experiments, lab work, and projects, the existing gap in the traditional education system is filled.

#### TEAM VAAYUSHASTRA

Established in 2012 as the face of Fr. Conceicao Rodrigues College of Engineering in the SAE Aero Design Competition annually held in the United States where teams from across the globe participate. Among the different classes in the competition the team has been participating in the Advanced class of SAE Aero Design Competition and has maintained position in the top 10 teams worldwide. The team has consistently come up with the affordable, optimised RC Aircraft that satisfies the problem statement.

The objective for academic year 2021-2022 was to design a suite of systems that can support the fight against wildfires through the delivery of water and parts for a ground vehicle. Ground Transport Vehicle (GTV) was safely to be delivered to the ground through a powered and autonomously guided aircraft PADA. Due to the global pandemic team could only participate in design report and presentation rounds in which it was able to secure 4<sup>th</sup> rank and 6<sup>th</sup> rank respectively, and 5<sup>th</sup> rank globally.



Team Vayushastra







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## Students' Participation in SAE Aero Modelling

#### 2019-2020

19/2020	SAE-STAR Admin			
Ac	lvanced Class: Outstanding Techn	ical Desig	n Rep	ort
Standing	School	Country	Late Penalty	Design
1	214 - Univ of Michigan - Ann Arbor (M-Fly Advanced Class)	United States	***	45.911
2	201 - Georgia Institute of Technology (ColumBUZZ 2XR Pro)	United States	-5.0	44.251
3	202 - Wroclaw University of Technology (JetStream Advanced)	Poland	777	41.069
4	215 - Cedarville Univ (CU Flight Crew)	United States		40.274
5	212 - Concordia University (Stingers)	Canada		40.150
6	213 - McGill Univ (AERO McGill Advanced)	Canada		39.503
7	222 - Vellore Institute of Technology (Team Assailing Falcons)	India		37.771
8	231 - Universidad Nacional Autónoma de México (UNAM Aero Design Advanced)	Mexico		37.440
9	211 - Inst Tech De Aeronautica ( $Leviat ilde{A}\mathcal{E}$ )	Brazil	1777	37.015
10	219 - University of Western Ontario (Western Aero Design)	Canada	***	36.991
11	225 - California State Univ - Northridge (El Toro Volador)	United States	-5.0	36.326
12	228 - Univ of Delaware (Flyin' Hens)	United States	***	33.535
13	233 - Univ of Tennessee - Martin (Hawkworks UTM)	United States		32.707
14	223 - Fr Conceicao Rodrigues College of Engrg (Team Vaayushastra)	India	-	32.232
15	238 - Kennesaw State University (Aerial Robotics)	United States	-	30.747
16	221 - Inst of Aeronautical Engrg Hyderabad (IARE ASTRA)	India	(400	25.404
17	218 - Université Laval (Avion Cargo Laval -Advanced)	Canada	-5.0	23.328



Students' Participation in Advanced class of SAE Aero Design Competition







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## Advanced Class - Overall Standings

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Standings	University (Team)	Country	Design Scores	Presentation Scores	Mission Performance Scores	Technical Inspection Deductions	Overal Scores
1	219 - Wroclaw University of Technology	Poland	37.0268	48.6333	16.4150		102.075
2	214 - AISSMS College of Engineering	India	42.2180	41.8833	0.0000		84.1013
3	223 - Nanjing Univ of Aeronautics & Astronauti	China	31.0350	46.2000	0.0000		77.2350
4	226 - Alexandria Univ	Egypt	28.1021	37.3333	0.0000	Ð	65.435
5	211 - Fr Conceicao Rodrígues College of Engrg	India	29.3220	36.0500	0.0000	9	65.3720
6	224 - Universidad Autonoma de Baja California	Mexico	0.0000	34.5125	0.0000	×	34.5125
7	212 - California State Univ - Northridge	United States	27.8351	44.4375	0.0000	-41.0	31.2726
N/R	222 - Univ of Pittsburgh - Pittsburgh	United States	0.0000	0.0000	0.0000		0.0000

<sup>\*</sup> N/R = Not Ranked

Overall Ranking of Advanced class of SAE Aero Design Competition

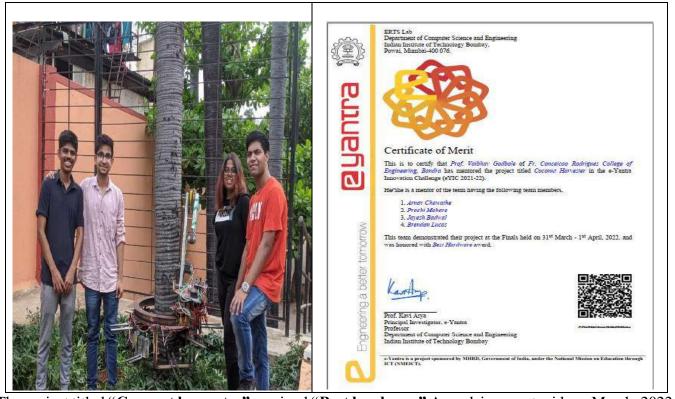






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**Team Project Cell:** Project Cell team Members Participate in e-yantra Idea Competition and e-yantra Robotics Compertition every year,organised by IIT-Mumbai. Every year there is a Team participating and winning awards under different Categories like Most Innovative Solution, Best Hardware, Best Algorithm Design.



The project titled "Coconut harvester" received "Best hardware" Award in e-yantra ideas March, 2022.







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**Team Robocon-CRCE:** The student Team Members participate ever year in ABU Robocon which is the biggest collegiate robotics competition in Asia-Pacific.

#### **Achievements:**

**2021-22:** 21<sup>st</sup> Position in overall ranking **2019-20:** 8<sup>th</sup> position in overall ranking **2017-18:** 26<sup>th</sup> position in overall ranking **2016-17:** 18<sup>th</sup> position in overall ranking

**2015-16:** 21<sup>st</sup> Rank from 105 participating teams

**2014-15:** 25<sup>th</sup> position in overall ranking





Student Participation in ABU Robocon July 2022 (All India Rank-21)



Student Participation Certificate in ABU Robocon March 2018







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**TEAM ABADHA:** Team ABADHA produces All Terrain Vehicle from buggy making to final ATV overcoming all constraints of time, investments, social connect activities etc. all under one roof in campus of Fr.CRCE and participates in the National Level competitions like SAE BAJA. They participated in Virtual E-BAJA SAE INDIA 2021-22 competition with flying colors. Team Abadha secured an overall rank of 15 at E-Baja SAE India Competition in June 2022 held at Pithampur, Indore, on the tracks of NATRAX and proved an exciting experience for students.





## INDIA

#### BAJA SAEINDIA 2022 eBAJA SAEINDIA 2022 OVERALL EVENT SCORE

counse	TEAM NAME	CITY	STATE	PRELIMINARY SCORE (OUT OF 100)	OVERALL STATIC SCORE 10UT OF 3301	OVERALL NDE SCORE (OUT OF 400)	EVENT SCORE (OUT OF BOD)	4WD BONUS (OUT OF 100)	VALIDATION EVENT SCORE FOUT OF 1001	ENDURANCE SCORE (OUT OF 300)	OVERALL EVENT Score (1630)	PHASE II PROTEST PENALTY	FINAL OVE SCOR
ACKOPOLES INSTITUTE OF TECHNOLOGY AND RESERVEN	ACRORACERZ	MOORE	MACHYA PRACESH	65.92	224.96	104.73	271.37		59.26	390.00	1825.33		10
ACITYA EN EMICERROS COLLEGE	FALCONS STRATESY 4.0	SURAMFALEM	ANDHEA PRADESH	39.40	61.72	BACKOUT					101.12		1
ABSING COLLEGE OF ENGINEERING, PUME	RESONANCE RACING	PUNE	MAHARASHTRA.	46.65	149.27	216.63		9			412.55		1
A MALL/YOTH I COLLEGE OF E WEIN SERING	TEAM TOREFO	KANIBAPALIY	KEPALA	27.99	111.07	0.00		72			139.06		1
RLA INSTITUTE OF TECHNOLOGY, MESRA	TEAM AVEON RACING	BANCHI	IHARCHAND	60.82	158.63	2621	¥1.45	9	36.09	132.25	455.50		1 20
CAMBRIDGE INSTITUTE OF TECHNOLOGY	CAMERIOGE RALLY SPORT	BENGALURU	KAPIKATAKA	35.50	101.97	OMF			DQ		136.67		-
CHEMNALINGTITUTE OF TECHNOLOGY	YAALEE	CHEWNAI	TANK NADO	55.00	120.01	DNF		(i)	DQ		175.01		1
OWN INSTITUTE OF TECHNOLOGY	EQUINON	BANGALORE	KAPIKATAKA	35.25	19.25	BACKOUT		-			54.54		l li
COLLEGE OF ENGINEERING PUNE	TEAM NEMESIS RACING	PUNE	MAHABASHTRA	60,47	234.95	202.32	123.24	5	39.12	215.63	875,73		3
COLLEGE OF ENGINEERING, ADDOR	TEAM ASTRA	PATHANAMIHITTA	KERALA	45.14	59.26	79.45					223.85		1 8
DR. D. Y. PATH, INSTITUTE OF TECHNOLOGY, PILLIPPI	TEAM DUREAYANS	PUNE	MAHABASHTRA.	81.65	150.81	172.64		0	DQ		385.10		9
DWARKADAS I SANGHAI COLLEGE OF ENGINEERING	DIS KRONOS IMOIA	MUMBAI	MAHABASHTRA	65.72	217.48	257.00			DQ		540.22		
FINOLEX ACADEMY OF MANAGEMENT AND TECHNOLOGY, RATHAGIN	TEAM MATADORS	RATNAGIRI	MAHARASHIRA	59.54	161.96	195.09			DQ		416.59		
PR. CONCEICAD RODRIEUES COLLEGE OF Engineering	TEAM ABRIDHA DAGE	MINIMA	MAHAKASHINA	SESE	362.27	255.53	15.18		15.77	57.50	524,71		1
BIANIZAIL SIMSH CAMPUS COLLEGE OF ENSINEERING AND TECHNOLOGY	TEAM BRAVIM	Batempa	FUNUAS	28.75	115.62	sq		V.	DQ		147.55		
GOVERN WENT ENGINEERING COLLEGE, THRISSUR	3,016	THIN SCAM	KDAA	#11	152.12	64.00	NOT ATTENDED		DQ	47.66	318.91		
BT (COPPUS	MACROSITI)	JOSH PUR	SAJAJIHAN	92.04	152.52	0.00	k		pq		£15.30		
ITEGRAS	ANU YANTTA	ADPAS	FUNDAS	51.75	96.03	0.00					140,44		
PLOWAN INSTITUTE OF TECHNOLOGY, HYDERABAD	BTH BACKG	SANGARDOY	TELANGANA	PASA	BACKOUT	BACKOUT		35			F1.24		
INDIAN INSTITUTE OF TECHNOLOGY,	TEAM ENGINES AND DEWONS	MODRE	MACHYA PRACESH	57.94	16.0	ONE		0			202.79		
MOMN INSTITUTE OF TECHNOLOGY,	TESU IONESE	TOWNS	RIA-SES CALUMNES	22.29	147.35	13.29		2	pq		21832		
METITUTE OF TECHNOLOGY, NIPMA UNIVERSITY	TREM STALLMONE	AHMEDIALD	GUINALT	6.61	164.90	BACKOUT	nea	9	DQ	178.53	EU 71		
LE, SOCIETY'S RAJARANBARU INSTITUTE OF TECHNOLOGY RAJARAMINAGAR,	TEAM GALACTUS RACING	ISLAMFUR	MAHABASHTRA.	60.53	154.74	108.14					273.41		
KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY	SYLNERACING	BHUBANESWAR	CDISHA	46.34	123.58	636		9			176.28		3
ELE TECHNOLOSICAL GRAVERSTIT	TEAM CONCEPT BREEN	HUBLI	SATINATASA	92.20	225.30	141.90	16.27		S£.50	9.50	367.50		
KS INSTITUTE OF TECHNOLOGY	REDUVE RACING	BANGALOFE	KARNATAKA	39.28	119.85	155.57	l'i		pq	1	315.10		1 8







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#### b)Student Participation in National and International Competitions

**Hackathons**: Students of CRCE participate in various Hackathon's (National and International) to name a few SIH, Flipkart, NASA Global Hackathon throughout the year.



Student Participation in Hackathon's







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**Team Explorers** - Won in **AI hackathon** an initiative of SINE-IITB supported by MSH, MEITY and organized by DERBI Foundation in the month of Aug 21. Prof. Swati Ringe, Nicola Mascarenhas, Yash Khasgiwala, Mario Dias



#### **SMART INDIA HACKATHON**

Team Digital Pirates – Winner in Final -Software Edition- Theme :Transportation and Logistics Ministry of Ports, Shipping and Waterways











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#### c)Student Participation in Technical Event at IIT-Mumbai

1. A project titled "Pani-puri and dahi puri vending machine" received an award in eyantra ideas competition, organized by IIT, Bombay under "Best hardware" category" in March, 2019





The Idea was to make a "Automatic Panipuri Vending Machine" which takes a Rs.10 coin and gives choice to the customer about the flavours. After Starting the items are processed and delivered. It also has provision for auto cleaning of the machine

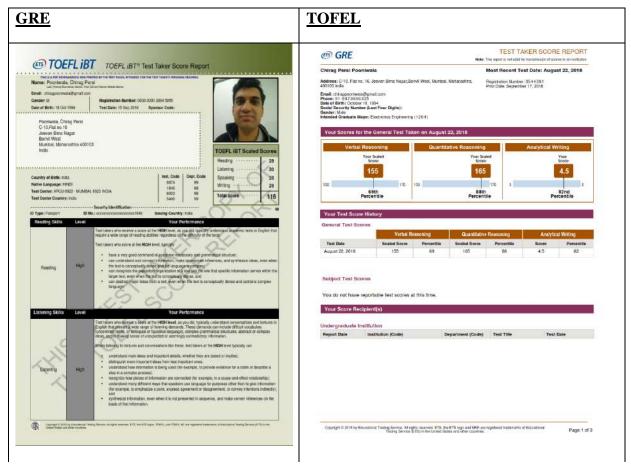






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### d)Students' Score Cards



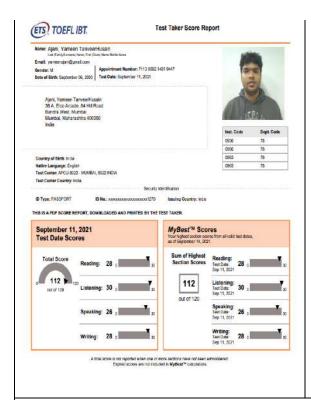
GRE AND TOEFL SCORE CARD







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#### TOEFL AND GRE SCORE CARD





# MBA CET SCORE CARD & ADMISSION AT JAMNALAL BAJAJ INSTITUTE OF MANAGE STUDIES







## Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

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tail	Parent's / Guardian's Name		27.5	(9,6)	
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Candidate's Details	Registration Number	Date of Birth	4.0 €	S. S.	
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pue	Examination Paper			0081851	
ő	Electronics and Communica	ation Engineering (E	C)	Skaj	
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nce	GATE Score 412		Number of Candidates Appeared in this paper	80629	
Performance	Marks out of 100* 29.33		All India Rank in this paper	5334	
P <sub>0</sub>	Qualifying Marks** 25.0	22.5 16.6	1.460,000.00	established to the second	
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GATE SCORE CARD







## Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

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Candidate s Details	Registration Number Date of Birth					8	
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5			18	-reb-2000		-	POTERRY
3	Examination Paper Production and Industrial Engineering (PI)					PS Bu Hoor	
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20				N. Stelle	Number of Cand		2223
Performance	GATE Score	56	3		Appeared in this		2059
	Marks out of 100°	53			All India Rank in	this	109
	Qualifying Marks**	35.7	32.1	23.8			March 2024
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GATE SCORE CARD







# Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

#### **CAT**



#### Instructions:

- Only those candidates who have taken the Common Admission Test (CAT 2018) are entitled to receive the score card. Keep a print-out of this score card for your information pertaining to CAT 2018, You will not receive the score card by email or by post.
- $2. \quad The \, Overall \, Scaled \, Score \, is \, the \, sum \, of \, the \, scaled \, scores \, of \, the \, candidate \, in \, the \, three \, sections.$
- 3. Percentile refers to the percentage of candidates who receive score less than or equal to the score obtained by the candidate.
- $4. \quad IIMs and Non-IIM member institutions independently decide how to use CAT 2018 scores in line with their own selection process. The scores are to be used only for selecting the candidates to their respective Post Graduate / Fellow Programme in Management.$
- 5. Detection of instances of incorrect information and process violation by a candidate at any stage will lead to disqualification of the candidate. Candidate's score will become null and void and he'she will not be allowed to appear for CAT in future. If such instances go undetected during the current selection process but are detected in subsequent years, such disqualification and the associated penalties will take place with retrospective effect.
- $6. \quad All \, queries \, regarding \, post-CAT \, 2018 \, selection process \, must \, be \, directed \, to \, respective \, IIMs. \, CAT \, Centre \, will not answer post-CAT \, related \, queries.$
- CAT 2018 score is valid only until 31st December 2019 and is subject to the candidate meeting the minimum eligibility marks in the qualifying examination. The score card will be available on www.iimcat.ac.in till 31 st December 2019 to download.
- Toll free number 1-800-209-0830 will be available till 20th January, 2019 and webmail support cathelpdesk@iimcat.ac.inwill be available till 31st March, 2019 respectively.

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## e)Internet/Computing Facility for the students





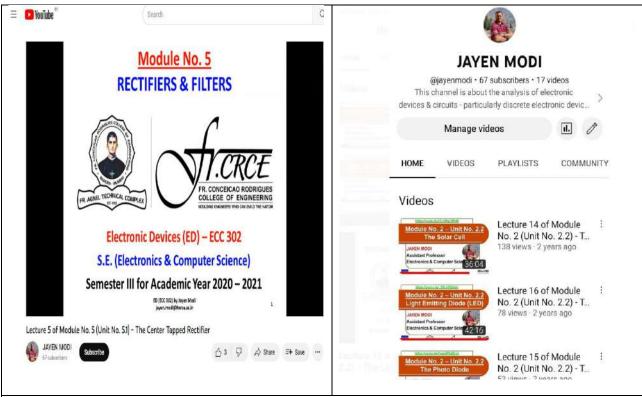




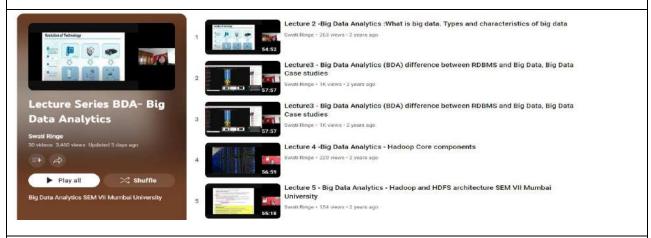


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- **4)ICT Tools**: Following are some of the ICT Tools used by the faculty to enhance the Teaching Learning Process.
- a) YouTube: Some of the faculty have taken the initiative to make their own YouTube channel for their respective subjects.



YouTube Channel Prof. Jayen Modi (ECS Department)/Subject: Electronic Devices (ECC 302) https://youtube.com/@jayenmodi



YouTube Channel Prof. Swati Ringe (Computer Engineering Department/Subject: Big Data Analytics https://www.youtube.com/playlist?list=PLYK\_lTZR6h8Vu\_gCQZJb\_NyVU6sBtV1In

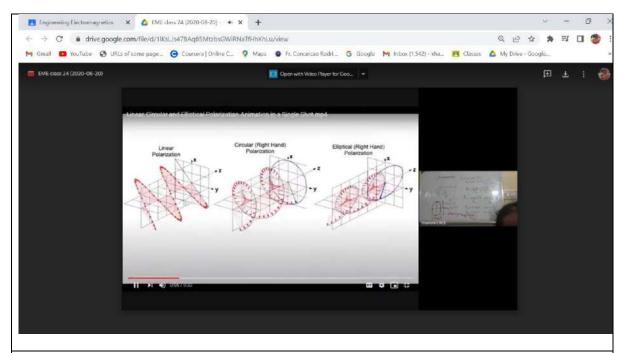




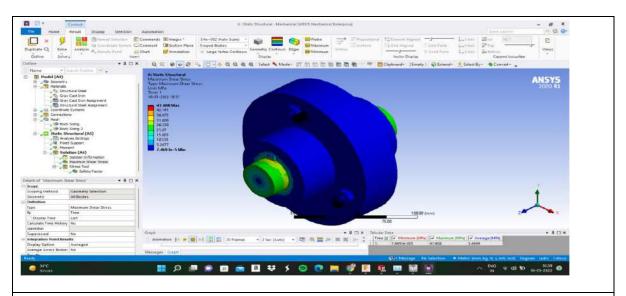


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#### b)Animations/Simulation Video:



Prof. Monica Khanore(Electronics Engineering Department) / Subject: Engineering Electromagnetics / Topic: Polarization(Animation Video)



Prof.Ketaki Joshi /Mechanical Department / Subject MD- Mini Project Modeling and Analysis /Topic :Ridge Flage Coupling(Simulation Tool)

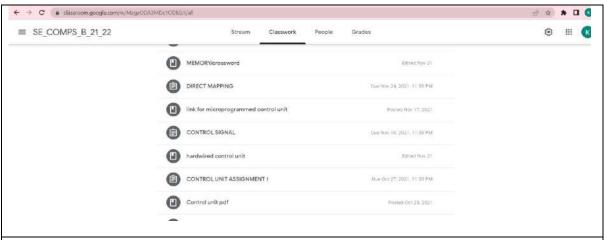






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c)Sharing Notes and Study Material on Google Classroom: All the faculty share their respective subject Notes ,Study Material, Reference Books pdf on the Google Classroom.



Prof. Kranti Wagle (Computer Engineering Department)/Subject :DLCOA(SEM III)

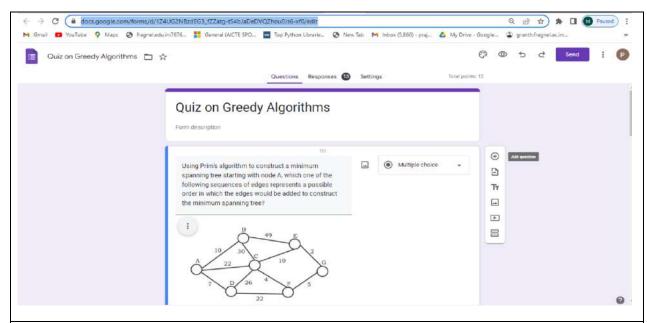




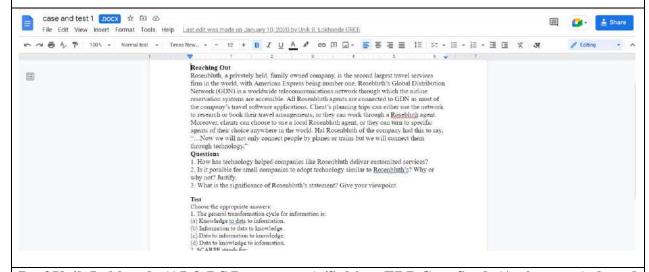


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#### d) Online Quiz /Assignment Uploaded on Classroom:



### Prof. Prajakta Dhamnaskar(AI & DS Engineering Department)/Subject:AOA(Sem IV) Online Quiz



Prof.Unik Lokhande (AI & DS Department) /Subject:ERP Case Study(Assignment) shared on Google Docs.

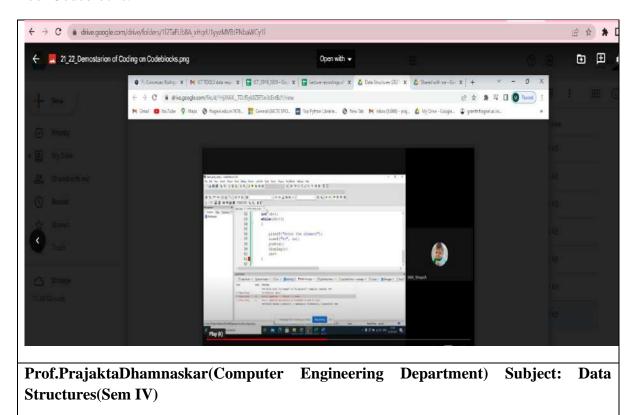






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**e)Demonstration Videos:** Demonstration of Coding in the subject of Data Structures using the Tool Codeblocks.



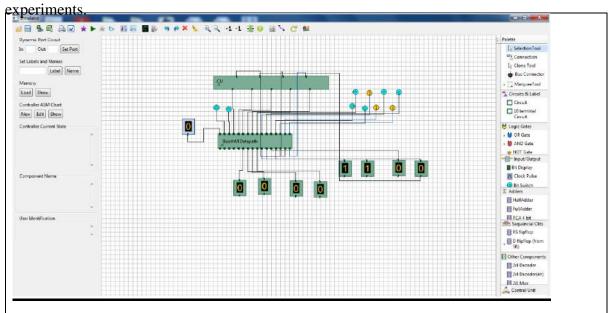






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**f)Virtual Lab:** In some of the Subject Lab the faculty demonstrates the experiments using Virtual lab and ensure that the students use the Virtual Lab effectively in performing the



Prof.Heena Pendhari (Computer Engineering department)/Subject :DLCOA Sem III



