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

Sr. No.	Docu	iments	Page				
			Nos.				
1	Expe	riential Learning					
	1.1	Project based learning					
		Mini Projects/Major Projects	<u>2-8</u>				
	1.2	Activity based learning					
		a) Skit, Roll Play	<u>9-10</u>				
		b) Educational Games(Crossword)	<u>11-12</u>				
		c) Brain Storming Sessions(Debate)	<u>13</u>				
	1.3	Field based learning					
		a) Industrial Internship					
		b) Industrial Visit	<u>22</u>				
		c) IDE Boot Camp(Entrepreneuship)	<u>23-24</u>				
2		Participative Learning					
	2.1	Cooperative Learning					
		a) Think-Pair-Share Activity	<u>25-29</u>				
		b) Poster Presentation(BMC)	<u>30</u>				
		c)Technical Paper Reading	<u>31</u>				
	2.2	Paper presentation and publication	<u>32-36</u>				
3	Problem solving methodologies						
		a) Problem based learning	<u>37-51</u>				
		b) Students' Participation in National and International	52-65				
		Competitions					

Further

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- 1. **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:** Mini Projects ,Major Projects, Subject Projects are the activities conducted under Project Based Learning.

#### 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.



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#### Example of BE Projects SEM VI (2023-2024) ECS

Group	Roll	Name of the students	Approved Topic	Name of	Project	Hardware
No.	no			the guide	Category	/ Software
BEECS_0	9132	Attar Singh Kalsi	IoT- Greenhouse	Prof.	Applicatio	Hardware
3	9118	Lionel Castelino	Watch	Jayen	n	
	9125	Atharva Getle		Modi		
BEECS_0	9139	Anika Makhija	Attendance System	Prof.	Applicatio	Software
4	9164	Satwik Shetty	Using Face	Shilpa	n	
	9170	Emmanuel Vazathra	Recognition	Patil		
BEECS_0	9111	Drishti Gopal	AI-Driven Credit	Prof.	Applicatio	Software
6		Agrawal	Scoring and Credit	Dipali	n +	
	9160	Lavil Saldanha	Line System	Koshti	Research	
	9137	Tanuj Kumbhar				
BEECS_1	9420	Vrushti Shah	Brain-Computer	Dr. Sapna	Research	Software
0	9418	Mrinmayi	Music Interface	Prabhu		
		Prabhughate				
	9142	Kaushik Nakashe				
	9146	Prachiti Pramod Patil	ISL – Indian Sign	Dr.	Applicatio	Software
	9141	Fiola Riva Mathias	Language Translator	Deepak	n	
BEECS_1		Dhruti Prashant		Bhoir		
2	9169	Vartak				
	9136	Arpita Khot	Medical Image	Prof.	Research	Software
	9147	Shreeshailya Patil	Analysis with	Dipali	based	
BEECS_1			Federated Learning	Koshti		
3	9149	Matthew Payapilly				
		Jordan Herschel	Smart Helmet	Dr. Sapna	Product	Hardware
	9165	Soans	-	Prabhu		
	9157	Christopher Clifford	-			
BEECS_2	9159	Vivek Pawan Sain				
2	9140	Yash Malani				
	9166	Dinesh Suthar	Autonomous vehicle	Prof.	Applicatio	Software
BEECS_2	9119	Mahender Choudhary		Vaibhav	n +	
1	9123	Kevin Dsouza		Godbole	research	

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#### Example of BE Projects SEM VI (2023-2024) COMPUTER ENGINEERING

R. NO	NAME OF THE STUDENT	TITLE OF THE PROJECT	NAME, ADDRESS & QUALIFICATIONS OF THE INTERNAL GUIDE/EXAMINER			
1	2	3	4			
1	Hudah Ansari	Unmasking Artificial	Dr. Sujata Deshmukh Ph.D.			
	Shreya Palande	Manipulation	HOD,Dept of Computer, CRCE Bandra(W) Mumbai- 50			
	Manasvi Patil					
2	Charmi Tank	Secure Space	Dr. Sujata Deshmukh Ph.D.			
	Shaun Pimenta	-	HOD,Dept of Computer, CRCE Bandra(W) Mumbai- 50			
	Bhushan Pakhle		50			
3	Lauren Menezes	TradeChain- Barter	Dr. Sujata Deshmukh Ph.D.,			
	Shawn Rodrigues	using Blockchain	HOD,Dept of Computer, CRCE Bandra(W) Mumbai- 50			
	Rudolf Dmello	-				
	Unnati Kotian	Gas sentri advance	Prof Monali Shetty Dept. of Comp. Engg. Fr. C.R.C.E,			
4	Gladys Lobo	detection system	Bandra.			
	Zeal Rodrigues	-				
			M.E. (Computer.)			
	Srijita Patra	EduChain:Bridging	Prof Unik Lokhande Dept. of Comp. Engg.Fr.			
5	Jonathan Duarte	NEP and Blockchain for Educational	C.R.C.E, Bandra.			
	Rishabh Gupta	Reforms	M.E. (Computer.) Pursuing Ph. D			
	Renu Nanadikar					
6	Trevelyn Noronha	Waste Connect, Recycle and Takeback	Prof. Heenakausar Pendhari M.E. (Electronics) Asst. Prof. CRCE Bandra (W).			
	Himanshu Bhundere					
	Vailantan Fernandes	1				

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	Brezhnev Rodrigues					
	Shreyas Bhat	Blockchain-based F2C	Prof Monika Khanore			
7	Naman Chouhan	application	Dept. of Comp. Engg.			
	Renvil Dsa		Fr. C.R.C.E, Bandra.			
	Saikiran Kasturi		M.E. (Electronics.) Pursuing Ph. D			
8	Ayukshi RAne	Semantic mapping of	Dr B. S. Daga			
	Godsee Almeida	the given sentences using NLP	Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			
	Akhil Mani		Ph.D. (Computer.)			
9	Nathan Lopes	AI Based Code	Dr B. S. Daga			
	Cheryl Almeida	Explainer	Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			
	Oswin Lopes		Ph.D. (Computer.)			
10	Vadakkeparampil Anosh Kurian	Community-based Immersive Reading	Prof Sushma Nagdeote Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			
	Resham Patil	Application with	M.E. (Electronics.)			
	Savit Nair	Background Audio	Pursuing Ph. D			
		Integration				
11	Shoydon Alphonso	Heat wave Prediction	Prof Ashwini Pansare			
	Reuben D'sa		Dept. of Comp. Engg.			
	Savio Rodricks	-	Fr. C.R.C.E, Bandra. M.E. (Computer.)			
			Pursuing Ph. D			
12	Shaun Dabre	Smart exercise	Prof. Prajakta Dhamnaskar			
	Aryan Gonsalves	monitoring	Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			
	Nash Rodrigues		M.E. (Computer.)			
	Aakarsh Sharma		Pursuing Ph. D			
13	Wesley Lewis	Blockchain based	Prof. Prachi Patil			
	Smith Dbritto	reward system for legal record	Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			
	Vedant Patankar		M.E. (Computer.)			
14	Shubham Ojha	Rakshak	Prof Kalpana Sagvekar			
	Glenn Mendonca		Dept. of Comp. Engg. Fr. C.R.C.E, Bandra.			

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	Glen Rodrigues		M.E. (Computer.)
			Pursuing Ph. D
15	Sandesh Raut	Realtime Yoga pose	Prof Merly Thomas
		recognition using deep	Dept. of Comp. Engg.
	Sennett Dmello	learning	Fr. C.R.C.E, Bandra.
			M.E. (Computer.)
	Atharva Nalawade		Pursuing Ph. D

#### Example of BE Projects SEM VI (2023-2024) MECHANICALENGINEERING

Sr. No.	RollNo	Name of the Student	Title of The project	Name, Address & Qualification of the Internal Guide
1	9433	AITAL SHAUNAK ARVIND		Dr. S. K. Das,
2	9436	BIDAYE VEDANG SANJAY	Performance Measure: Bus	(Ph.D) Fr.
			Waiting Time	CRCE-
3	9452	TRIVEDI HARSHVARDHAN SANJEET		Bandra- 400050
3	9432	KUDROLI MOHD SAQUEEB		Dr. Vasim A.
4	9319	ASHFAQUE AHMED		Shaikh, (Ph.D)
	7517		Electricity from plant	Fr. CRCE-
			derivatives.	Bandra-
5	9329	MORE YASH SANTOSH		400050
6	9340	RAWAT RAGHAV OMPRAKASH		Prof. D. S S.
7	9341	SHAIKH ASIYA MOHAMMED HANIF	1	Sudhakar,
8	9342	SHAUN JOSE GEEVARGHESE	Autonomous Mapping Robot	(M.E.) Fr.
				CRCE-
0	9343	SHENAVA AINESH SURESH		Bandra-
9	7343	HALHALLI SACHIDANAND	+	400050 Prof. S. A.
10	9309	RAVINDRA		Korgaonkar,
10	9318	KORE KUNAL HARESHWAR		(M.E.) Fr.
11	9324	MANKAME NEEL MAHENDRA	vtol - tilt rotor tricopter	CRCE-
12	7324		-	Bandra-
13	9335	PEDNEKAR SANAT MAHESH		400050
14	9439	DMONTE ALROY LOUIS		
15	9444	LOPES SHELDON ROSHAN	Multi jet water sprayer with	Prof. M. V. B.
16	9445	LOPES SHENON SANJAY	flow control	Rao, (M.E.)
17	9446	NAIK NEELA RAJESH	7	Fr. CRCE-
A A A A A A A A A A A A A A A A A A A	Futh	l	·	

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				Bandra- 400050
18	9303	AREKAR SIDDHANT RAKESH		Dr. V. S.
19	9305	DAS DHRUV BHUPENDRA		Jorapur,
20	9323	MANE VAISHNAVI SANTOSH	Regenerative Braking System	(Ph.D) Fr.
				CRCE-
				Bandra-
21	9345	SHIRKE TEJAS CHANDRAKANT		400050
22	9327	MENEZES ALISHA GLORIA JOSSIE		Dr. Vasim A.
23	9435	BHALERAO MONISH KISHOR	RATEVA- Ram Air Turbine	Shaikh, (Ph.D)
24	9442	KOCHAREKAR MANSI SUBHASH	for Electric Vehicle	Fr. CRCE-
			Auxiliary Systems	Bandra-
25	9443	KODTE OM GANGADHAR		400050

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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
- Hardware implementation as well as simulation of mini projects, presentations, case studies etc., Research Paper study activity.
- Educational Games, Brain Storming Session a)Skit ,Motivational Movie,Crosswords

#### Fr. Conceicao Rodrigues College of Engineering Department of Computer Engineering

Class- SE-COMPUTER (A & B) Subject – Skill based Lab Course: Object Oriented Programming with Java Name of the teacher: Prof. Parshvi Shah Academic year: 2023-24 Activity Date:13/10/2023

#### **Innovative Teaching Learning**

To improve the students' learning experience innovative learning methods were implemented in the subject OOP with Java III (year 2023-24).

Sr. No	Торіс	Teaching/Learning method	Benefit to students
1	Exception Handling in Java	Role Play	Role play makes the student to think critically and relate the concepts they learnt, with respect to different scenario provided.

#### 1) Geo tagged pictures:



### ROLE PLAY

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#### Role Play: Description of Activity:

Students have been provided with different scenario related to Exception handling to learn how method can handle or \ throws an exception.one student will act as a main method and another one act as a method.

For example, different situation could be:

- 1) If Calling method Decided to handle Exception, who will be having try, catch, throws and throw?
- 2) If Calling method Decided not to handle an exception, who will handle it? Where will be try, catch, throw and throws?
- 3) If main method Decided not to handle an exception, who will handle it? Where will be try, catch, throw and throws?

**TEACHER NAME: Prof. Parshvi Shah** 

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#### **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 eg:CROSSWORD specifically for the purpose of educating children can motivate self-learning and problem-solving skills to a great extent especially for team building and leadership exercises.

FOOTBALL GAME ACTIVITY CLASS: BE ECS Subjects: Deep Learning and Big data Analysis Date: 17-10-2023



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8. Statistical approach to understand the language

## Fr. Conceicao Rodrigues College of Engineering Department of Computer Engineering

Class- BE-COMP(A & B) Subject – Big Data Analytics Name of the teacher: Ankita Amburle Academic year: 2023-2024 Activity Date:17/08/2023

### Innovative Teaching Learning

To improve the students' learning experience innovative learning methods were implemented in the subject Big Data Analytics(year 2023-24).

Sr. No	Τορίς	Teaching/Learning method	Benefit to students
1	CROSSWORD	Students were provided with study material on classroom in advance. With reference to study material were told to solve CROSSWORD	CROSSWORD makes the student to think critically and relate the concepts they learnt, with respect to clues provided.

#### CROSSWORD

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### Fr.Conceicao Rodrigues College of Engineering Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

#### b) Brainstorming Sessions

Brainstorming sessions is usually group activity in 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, Debates

Fr. Conceicao Rodrigues College of Engineering Department of Computer Engineering

Class- BE-COMP(A) Subject – Blockchain Technology Name of the teacher: Dr. Ashok Kanthe Academic year: 2023-24 Date: 22/08/2023

Innovative Teaching Learning

To improve the students' learning experience innovative learning methods were implemented in the subject **Blockchain Technology** semester VII (year 2023-24)

Sr N o	Торіс	Teaching/Le arning method	Benefit to students	Supporting Doc
	Technical Paper on Blockchain Technology (Given as Mini project in Practical)	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

GROUP DISCUSSION (TECHNICAL PAPER )



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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.

Sr.No	Roll No	Student Name	Class	Company	\$Role	Start date	End date
L	9186	Kavach Dave	BE_A	BeerBiceps media world private limited	Operations executive	4/19/2023	4/19/2024
2	9428	Vijay Prajapati	BE_A	University of Mumbai	Software Development Intern	7/1/2023	1/1/2024
<u>3</u>	9422	Deon Gracias	BE_A	University of Mumbai	Software Developer	7/1/2023	1/1/2024
4	9432	Hisbaan Mubarak Sayed	BE_A	Mumbai University	Software Developer	7/1/2023	1/1/2024
5	9186	Kavach Dave	BE_A	Pricw Waterhouse Cooper's LLP	IT intern / Trainee	7/17/2023	10/18/2023
<u>6</u>	9208	Martina John	BE_A	DigiHelic Solutions Pvt. Ltd.	Full Stack Developer Intern	12/10/2023	5/3/2024
7	9603	Zane Vijay Falcao	BE_A	DigiHelic	Full Stack Developer	12/10/2023	3/31/2024
8	9197	Vailantan Anthony Fernandes	BE_A	Iris Tech Developer	Web developer	1/1/2024	3/31/2024
9	9178	Vallance Alvares	BE_A	Llajja	Web Development Intern	1/10/2024	4/10/2024
<u>10</u>	9560	Girish Nhavkar	BE_A	Asmita solutions	Software Developer Trainee.	1/22/2024	3/22/2024
<u>11</u>	9233	Hitesh Sharma	BE_A	Interactive Brokers	Intern Software Developer	2/28/2024	4/28/2024
<u>12</u>	9180	Amey Nitin Bagwe	BE_A	AppAvengers	App Developer	4/3/2024	7/3/2024
<u>13</u>	9180	Amey Nitin Bagwe	BE_A	Metricoid Technology Solutions Pvt Ltd.	React Native Intern	4/5/2024	4/5/2024
<u>14</u>	9428	Vijay Prajapati	BE_A	Astraea Solutions Pvt Ltd	Software Development Intern	4/5/2024	7/5/2024
<u>15</u>	9631	Alroy Pereira	BE_A	Margdarshan	Frontend Developer Intern	6/1/2024	9/1/2024
<u>16</u>	9185	Kris Corriea	BE_A	Aranca	Business Research Analyst	6/1/2022	5/31/2024
<u>17</u>	9229	Ritika Milind Rumde	BE_A	Tata power renewable energy limited	Intern	6/15/2023	7/15/2023
<u>18</u>	9259	Dillon Gonsalves	BE_B	Rothian	Web Developer	6/11/2023	9/11/2023
<u>19</u>	9568	Glison Pereira	BE_B	Mira Advanced Engineering	Java Developer	12/1/2023	1/1/2024
<u>20</u>	9568	Glison Pereira	BE_B	Mira Advanced Engineering	Python Developer	3/1/2024	4/1/2024
<u>21</u>	9256	Samuel Emmatty	BE_B	IIDE	Marketing CRM Intern	3/19/2024	9/19/2024
<u>22</u>	9592	Aston Renith Castelino	BE_B	XIRCLS - 360° Martech & Decentralized Collaborative Marketing Network.	Frontend Development Intern	3/26/2024	6/26/2024
<u>23</u>	9598	Ryan D'Mello	BE_B	Exceller Tech	Software Developer	4/10/2024	7/31/2024
24	9211	Malaika Monterio	BEC_A	IDFC First Bank	Software Development Intern	2/8/2024	4/4/2024
<u>25</u>	9179	Hudah Ansari	BEC_A	IDFC First Bank	Software Development Intern	2/8/2024	4/6/2024
<u>26</u>		Glenn Mendonca	BEC_B	Wissen Technology	Full Stack Developer	1/1/2024	5/31/2024
27		Glen Rodrigues	BEC_B	Wissen Technology	Full Stack Developer	1/1/2024	5/31/2024
28		Chinmay Kadam	BEC_B	Wissen Technology	Full Stack Developer	1/1/2024	5/31/2024
	9238	Aditya Vyas	BECA	Adenza Inc.	Software Development Intern	1/8/2024	6/30/2024

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<u>30</u>	9893	Reuben Fernandes	SE_A	Affinzy	Social media manager	4/26/2023	7/26/2023
1	9886	Joshua Dmello	SE_A	Hindustan Petroleum Corporate Limited	IT Intern	5/12/2023	5/1/2024
2	9913	Mark lopes	SE_A	Indian Oil	Software Development Intern	12/4/2023	1/4/2024
	9886	Joshua Dmello	SE_A	Hindustan Petroleum	IT Intern	12/5/2023	1/5/2024
4	9892	Preetham Fernandes	SE_A	One basket marketing	Web designer	1/22/2024	1/22/2025
5	9916	Shaun Mendes	SE_A	Jio Platforms	Data Engineering Intern (Device Analytics)	6/14/2024	7/30/2024
6	9610	Yashika Haritwal	TE_A	Cloud Counsealage	FUll Stack Web Developer	07-01-2023	9/30/2023
7	9569	Winster Pereira	TE_A	PR Software Solutions	Java Developer	12/1/2023	12/15/2023
3	9580	Vansh Thakkar	TE_A	Prudent Services & Solutions EMERGY Enviro Private	Full Stack Developer	12/1/2023	2/10/2024
9	9569	Winster Pereira	TE_A	Limited - SINE IIT Bombay	Project Assistant (ELCC)	12/1/2023	3/31/2024
0	9894	Zane Fernandes	TE_A	AltissAdvance Tech Pvt. Ltd.	Backend Python Intern	5/27/2024	8/25/2024
L	9765	Simona Rumao	TE_A	Supraja Technologies	Cybersecurity Intern	7/3/2024	7/7/2024
2	9622	Soham Nitin Mane	TE_B	Ultimate Scaler Private Limited	Jr. Programmer	12/8/2023	2/1/2024
3	9623	Dhruv mayekar	TE_B	Viral fission	City leader	5/1/2024	2/28/2024
<u>l</u>	9602	Nicole Falcao Chhand Kunal	TE_B	Svirtz Technologies Private Limited	Backend Java Developer intern (SDE)	10/2/2024	11/8/2024
5	9594	Chaughule	TE_B	XIRCLS	Django developer	5/29/2023	8/27/2023
5	9546	Emin Joy	TE_B	Tann Mann Gaadi Foundation	Machine Learning Intern	6/9/2023	8/9/2023
	9296	Shubham Harishankar Sonar	TE_B	Helpy Moto Company	Junior Human Resource	5/1/2023	7/10/2023
3	9243	Pooja Jaya Banjan	TE_B	The Sparks Foundation	Web Development Intern	6/1/2023	7/1/2023
9	9605	Rahul Gandla	TE_B	Real Happiness of Life Foundation	Website Development	6/1/2023	1/10/2024
)	9542	Chris Gracias	TE_B	Xircls	Python Django Developer Intern	6/5/2023	7/5/2023
l	9609	Emmanuel Gudinho	TE_B	XIRCLS	Python Django Developer	6/5/2023	9/5/2023
2	9609	Emmanuel Gudinho	TE_B	XIRCLS	Python Django Developer	6/5/2023	9/5/2023
3	9638	Slayde Sequeira	TE_B	Svirtz Technology Solutions Pvt Ltd	App and Web Developer	10/1/2023	12/31/2023
l	9638	Slayde Sequeira	TE_B	Svirtz Technologies Pvt Ltd	App/Web Developer	10/1/2023	7/1/2024
	9539	Crystal Fernandes	TE_B	Svirtz Technologies Private Limited	UI/UX Frontend Development Intern	10/1/2023	10/1/2024
6	9622	Soham Nitin Mane	TE_B	Ultimate Scaler Private Limited	Jr Programmer	12/8/2023	2/1/2024
7	9638	Slayde Sequeira	TE_B	Digihelic Solutions Pvt. Ltd	Web Developer	12/10/2023	3/30/2024
3	9540	Saahil Fernandes	TE_B	Simple Logic IT Private Limited	App Developer	6/11/2024	7/11/2024
2	9983	MARK ALFRED JUDE NAZARETH	TE_B	Ardent Computech Pvt. Ltd.	AICTE	6/17/2024	7/12/2024
)	9539	Crystal Fernandes	TE_B	Synapses India Systematrix AI	Software Developer Intern	7/1/2024	9/30/2024
L	9569	Winster Periera	TEC_A	Emergy_IITB	Software Development Intern	12/1/2023	
	9528	Janice DCruz	BE_B	Exceller Tech	Software Developer	4/10/2024	7/20/2024
3	9580	Vansh Thakkar	BE_A	VPN Digital Services	Software Developer Intern	2/1/2024	4/30/2024
	9580	Vansh Thakkar	BE_A	Mayjis Foundation	Web Developer	6/1/2023	10/20/2023
4			BE_A	Future Logic	SDE Intern	6/1/2024	7/1/2024

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Swetambari Tandel DIRECTOR



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### **CERTIFICATE OF APPRECIATION**

This is to Certify that

Emmanuel Gudinho

was a Python & Django Developer Intern from 05.06.2023 to 05.09.2023 at XIRCLS - The World's First Collaborative Marketing Platform.

DEEPAK DHINGRA CO-FOUNDER

Harila

UTTARIKA KUMARAN CO-FOUNDER

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## INTERNSHIP COMPLETION LETTER

To Whomsoever This May Concern

This is to certify that Nayonica Sherlin has completed a 3-month internship (from May to July 2023) as a Flutter Development Intern with HoneyBadgersCo.

> During the internship, Nayonica has demonstrated a high level of dedication and professionalism.

We are confident that Nayonica has gained valuable skills and knowledge during their time with us, and we wish him all the best in his future endeavors.

remore

CEO, HoneyBadgersCo



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# **IRIS Tech Developers**

Innovate | Connect | Inspire

- +91 8686096868
- iristechdevelopers@gmail.com
- 19-7-87K3 585, Yellappa Reddy Qtrs, R.C.Road, Tirupati - 517501



Date : 2 September 202:

#### CERTIFICATE OF INTERNSHIP COMPLETION

#### To Whom It May Concern

This is to certify that Mr. Aakash Shashikant Lopes bearing ID: IRIS BDI 01 has successfully completed an internship with IRIS TECH DEVELOPERS as a Business Development Intern in the Marketing Department from 1 June 2023 to 31 August 2023.

During the course of the internship, **Mr. Aakash Shashikant Lopes** exhibited exceptional dedication, enthusiasm, and a strong commitment to learning and development. Their contributions and accomplishments during this period have been invaluable to our team and organization.

Besides showing high comprehension capacity, managing assignments with the utmost expertise, and exhibiting maximal efficiency, he has also maintained an outstanding professional demeanor and showcased excellent moral character throughout the internship period.

I hereby certify his overall work as excellent to the best of my knowledge. Wishing him the best of luck in his future endeavors.

With Regards,

M. Kasusburgerkiet

Matam Reddy Sai Srinivasa Karthik, Founder & CEO.





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#### b)Students are encouraged to Participate in various company initiated Hackathons like JMorgan,

**TIAA** and eventually students who successfully compete in these Hackathons, get theopportunity to Intern at these Industries, few of them also get placement offers in the same company. Following are the Internship example

TIAA Global Business Services (India) Private Limited Registered office: 7th Fixor, Winchester Building Powal Business District, Powal Mumbai, Maharashtra - 4000076 CIN: U72001MH2016FTC279576 Phone: +91.22 62298000



August 04, 2023 Employee Name: Mirza Junaid Employee Id: 10008430

Internship Completion Letter

Dear Mirza Junaid,

This is to certify that you have successfully completed your internship with TIAA Business Services (India) Private Limited during the period from June 05, 2023 to July 28, 2023.

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

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

Thank You. For TIAA Global Business Services (India) Private limited

Authorized Signatory Human Resource

This is a system generated letter, doesn't require any signature

ertificate for Internship at TIAA

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**Participation in TIAA Hackathon** 



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**Industrial Visit:** : For understanding the work environment in the industries, industrial visits are organized once in a year at Institute Level and Department Level. Industrial Visit to CITY INSTITUTE OF DISATER MANAGEMENT (CIDM) ,BMC, PAREL The industrial visit to the City Institute of Disaster Management was both informative and insightful, offering a glimpse into the institute's commitment to create awareness among citizens regarding how we can prevent our planet from disasters. The practical approach and integration of technology position the institute as a leader in the field of disaster management education.

#### DATE: 24/11/2023



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#### AICTE-MIC PARTICIPATION IN INNOVATION DESIGN ENTREPRENEURSHIP (IDE) BOOTCAMP





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# 2) Participative Learning: Following are the activities conducted under head Participative Learning:

**2.1 Cooperative 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

#### Fr. Conceicao Rodrigues College of Engineering

#### Department of Computer Engineering

Class- SE-COMP(B)

#### Subject – Discrete Structures and Graph Theory

Name of the teacher: Supriya Kamoji

Academic year: 2023-2024

Activity Date: 14/09/22

#### **Innovative Teaching Learning**

To improve the students' learning experience innovative learning methods were implemented

in the subject Discrete Structures and Graph Theory (year 2023-24).

Sr. No	Topic	Teaching /Learning Method	Benefits to Students	Supporting Doc
1	Algebraic structures	Think Pair share activity conducted for whole class	All the Students understood the different properties such as commutative, inverse, identity, associative and closure for the different algebraic systems.	Available in course file

PHOTOGRAPHS IN CLASS

Further

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THINK PAIR SHARE ACTIVITY



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## Fr. Conceicao Rodrigues College of Engineering Department of Computer Engineering

## Class- TE Computer Engineering (A and B) Subject – Internet Programming Name of the teacher: Prof. Prachi Patil Academic year: 2023-2024

## **Innovative Teaching Learning**

To improve the students' learning experience innovative learning methods were implemented in the subject <u>CSDL05012 Internet Programming Sem 5.</u>

Sr. No	Торіс	Teaching/Learning method	Benefit to students	Supporting Doc	
1	Study of Servlet	Flipped Classroom	Class time is used for interactive discussions, problem-solving, and application of knowledge.	Available in course file	
2	Design and Apply concepts of HTML, CSS and Javascript	Project-Based Learning (PBL)	PBL involves students working on real-world projects that require critical thinking, problem-solving, and collaboration. It promotes hands-on learning and application of knowledge.	Available in course file	

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Activity 2:



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#### 2) ATTENDANCE:

Available in Course File

#### 3) ACTIVITY:

Activity 1: Flipped Classroom

Topic Covered: Servlets

Activity Description: Materials of subtopics related to servlets were shared with students prior. In

the classroom, students are divided in groups and explain the allotted topic to the audience. Each

topic was concluded with QnA.

Activity 2: Project Based Learning System (Problem Statement) :

Design and Implement Interactive webpages using HTML, CSS and Javascript

Project Monitoring Application.

Requirements:

- 1. Home page with menus to browse through other pages.
- 2. Google form to register the group and submit project Abstract
- List of approved and rejected projects.
- List of allotted mentors and group and project details
- Schedule of various evaluation thru the semester
- Results of mid term evaluation
- Log book entry page with statistics
- 8. Submission of project report and display report
- Page for internal and external review
- 10. Final display of project marks and feedback

Activity Description: Students were divided in groups. Teacher explained them the problem statement. Allotted various pages among the different groups and asked them to apply the concepts of HTML, CSS and Javascript to design and construct the assigned page. After the allotted time, each group discusses their work with course instructor and also undergoes peer reviews with another team who is assigned same page.

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**b**)**Poster Presentation:** In some of the subject 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(Buisness Model Canvas) activity conducted in the Subject of IOT.



Poster Presentation(Buisness Model Canvas in the Subject of Internet of Things)

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

#### Fr. Conceicao Rodrigues College of Engineering Department of Computer Engineering

Class- TE-COMP(A) Subject – Mobile Computing Name of the teacher: Dr. Ashok Kanthe Academic year: 2022-23 Date: 27/01/2023 Time:10 am to 11 am. Students Attended-36

#### Innovative Teaching Learning

To improve the students' learning experience innovative learning methods were implemented in the subject Mobile Computing semester VI (year 2022-23).

## Activity- Technical Paper Reading and Analysis of Mobile Computing for Mobile Crowdsensing.

Sr. No	Topic	Teaching/Learning method	Benefit to students	Supporting Doc
1	Application and Key Techniques for Mobile Crowdsensing	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



Questions prepared by students after reading the technical paper and presented and given answers of the following questions.

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

sr no	year 2023-24
	R. Joglekar, R. Daniels, A. Jagare, P. Shah and S. S. Rathod, "TIQ Comparator Based 8-bit Flash ADC for
	Communication Applications," 2022 Sardar Patel International Conference on Industry 4.0 - Nascent
	Technologies and Sustainability for 'Make in India' Initiative, Mumbai, India, 2022, pp. 1-6, doi:
1	10.1109/SPICON56577.2022.10180784.
	Shah, P., Sawant, S., Randive, R., Singh Manhas, S., & Singh Rathod, S. (2023).
	Implementation of Retinal Pathways. International Journal of Microsystems and IoT, 1(7), 445-451.
2	https://doi.org/10.5281/zenodo.10441440
	M. R. Bansode and S. S. Rathod, "Enhanced Signal and Power Integrity using Novel Planar EBG design,"
	2023 Joint Asia-Pacific International Symposium on Electromagnetic Compatibility and International
	Conference on ElectroMagnetic Interference & Compatibility (APEMC/INCEMIC), Bengaluru, India,
3	2023, pp. 1-4, doi: 10.1109/APEMC57782.2023.10217404.
	Shah, Payal, Reena Sonkusare, and Surendra S. Rathod. "FinFET based photoreceptor for silicon retina to
4	reduce power consumption." Biosensors and Bioelectronics: X 14 (2023): 100330.
	Manisha R. Bansode, Surendra S. Rathod. A bandwidth enhanced multilayer electromagnetic bandgap
	structure to reduce the simultaneous switching noise[J]. AIMS Electronics and Electrical Engineering,
5	2023, 7(4): 406-420. doi: 10.3934/electreng.2023021
	Shah, Payal, Reena Sonkusare, and Surendra S. Rathod. "Modelling of FinFET based ON bipolar cell of
6	silicon retina." Biosensors and Bioelectronics: X 15 (2023): 100409.
	Shah, Payal, Satvik Sawant, Reena Sonkusare, and Surendra S. Rathod. "Modelling and design of
7	asynchronous receptive circuit for cone pathways." Integration 94 (2024): 102112.
	Nagdeote, S., Prabhu, S. A model to perform prediction based on feature extraction of histopathological
	images of the breast. Multimed Tools Appl 83, 18119–18146 (2024). https://doi.org/10.1007/s11042-023-
8	<u>16245-5</u>
	Nagdeote, Sushma, Sapna Prabhu, and Jayashri Chaudhari. "Enhanced Power Law Transformation for
9	Histopathology Images of Breast Cancer." International Journal of Image and Graphics (2024): 2550028.

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10	Enhanced Computer-Aided Digital Imaging Technique for Predictions in Breast Cancer (accepted)	
	Digital Tool for HR: Natyashastra's "Rasas" and "Ragas" tonce Virtual Learning Engagement," 2024 IEEE	
	International Conference on Interdisciplinary Approaches in Technology and Management for Social	
11	Innovation (IATMSI), Gwalior, India, 2024, pp. 1-6, doi: 10.1109/IATMSI60426.2024.10502463	
	Koshti, Dipali, Gupta, Ashutosh, and Kalla, Mukesh. 'Design of Knowledge Incorporated VQA Based	
	on Spatial GCNN with Structured Sentence Embedding and Linking Algorithm'. 1 Jan. 2023 : 10835 -	
12 10852.		
	Shaik, Fasi Ahamad, Dipali Koshti, Ashutosh Gupta, Mukesh Kalla, and Arvind Sharma. "A	
	comprehensive review and open challenges on visual question answering models." AiBi Revista de	
13	Investigación, Administración e Ingeniería 11, no. 3 (2023): 126-142.	
Koshti, D., Gupta, A., Kalla, M., & Sharma, A. (2024). TRANS-VQA: Fully Transform		
	Question-Answering Model Using Question-guided Vision Attention. Inteligencia Artificial, 27(73), 1	
14	128. https://doi.org/10.4114/intartif.vol27iss73pp111-128	
	Koshti, Dipali, Ashutosh Gupta, Mukesh Kalla, Pramit Kanjilal, Sushant Shanbhag, and Nirmit Karkera.	
	"EDUVQA–Visual Question Answering: An Educational Perspective." Journal of Advanced Research in	
15	Applied Sciences and Engineering Technology 42, no. 1 (2024): 144-157.	
	Godbole, Vaibhav, and Shilpa Gaikwad. "A Brief Review of Swarm Optimization Algorithms for	
Electrical Engineering and Computer Science Optimization Challenges." In Internation		
	IoT Based Control Networks and Intelligent Systems, pp. 441-458. Singapore: Springer Nature Singapore,	
16	2023.	
	Pakhare, Shalom Richard, Rizwan Baig, Abhishek Athani, Siddarth Mhade, and Jayen Modi. "Automatic	
17	Electric Vehicle Charging Station." Sch J Eng Tech 1 (2024): 1-18.	
	Lopes, Archana P., Sahil Bane, Mohini Gautam, and Shalaka Vengurlekar. "Semblance Unmasker: Hidden	
	Emotion Recognition Using Deep Learning Approach." In 2023 International Conference on Sustainable	
18	Communication Networks and Application (ICSCNA), pp. 1212-1221. IEEE, 2023.	
	Lopes, Archana, and Kolla Bhanu Prakash. "Artificial Intelligence and Machine Learning Approaches to	
	Document Digitization in the Banking Industry: An Analysis." Ingénierie des Systèmes d'Information 28,	
19	no. 5 (2023).	
	Larry Lopes, Rudolf Dmello, Sangeeta Parshionikar and Archana Lopes, "Secured Electronic Voting	
20	System using Blockchain Technology" Journal of Propulsion Technology, Vol. 45 No. 01 (2024)	

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	Lopes, Archana, David Jennicson, Kunal Wagh, and Akash Agre. "Unveiling Hate: Multimodal		
	Perspectives and Knowledge Graphs." In International Conference on Internet of Everything and Quantum		
21	Information Processing, pp. 144-149. Cham: Springer Nature Switzerland, 2023.		
	Bhangale, Prajakta, and Shubhangi Vaikole. "Chaotic Map Based Raster Data Encryption for Geospatial		
22	Data." International Journal of Safety & Security Engineering 13, no. 6 (2023).		
	J. Rambhia and R. Sutar, "Classification of Mental Arithmetic States Using Single Electrode," 2023		
	International Conference on Next Generation Electronics (NEleX), Vellore, India, 2023, pp. 1-4, doi:		
23	10.1109/NEleX59773.2023.10421525.		
	Rambhia J, Sutar R. Verification of Source Activations in a 3D Brain Model Using 'CLEVER' Algorithm		
24	for Mental Arithmetic Conditions. Annals of Neurosciences. 2024;0(0). doi:10.1177/09727531241234727		
	Comparative Analysis of Association Techniques to Improve Game Design, 1st International Conference		
25	on Advance Technology (ICAT 2024)		

Sr. No	Year 2023-24
1	Sonia Pol, Shaunak Aital, Siddhi More, Dr. Hemant Khanolkar, Bhushan Patil (2024) Experimentation and analysis of Industrial Chimneys and solar chimney power plant: "A comprehensive literature review" (2024) International Conference on Materials Science and Manufacturing Technology (ICMSMT 2024)
2	Janhavi Sachin Shinde, Shubham Dinesh Sawant, Jaydenmario Joseph Fernandes, Aayush Devendra Patil, Dr. Bhushan T. Patil, Sonia Pol, Dr. Hemant Khanolkar. Electrochemical (2024) Additive Manufacturing: A Comprehensive Literature Review, 2024 International Conference on Materials Science and Manufacturing Technology (ICMSMT 2024)
3	Pol Sonia M, Aniket Rayte, Bhushan T Patil, Ketaki N Joshi (2024). Analysis and Optimization of Transportation Logistics for Supply Chain Management of Perishable Goods using Monte Carlo Simulation, 2024 International Conference on Sustainable Technologies in Civil and Environmental Engineering (ICSTCE 2024) E3S Web of Conf., 559 (2024) 04004 https://doi.org/10.1051/e3sconf/202455904004
4	Sonia M. Pol, Bhushan T. Patil, Ketaki Joshi, Amit Lopes.(2024) Selection of Additive Manufacturing Technique by Using Multi Criteria Decision Making Methodology Viz. Analytical Hierarchy Process, Fifth International Conference on Advances in Physical Sciences and Materials (ICAPSM)
5	<ul> <li>Siddhi More, Sonia M. Pol, Dnyaneshwari Shinde, Sameeksha Naik, Bhushan T. Patil. (2024), Experimentation in Injection Molding: Simulation and Parameter Optimization Using Design of Experiment (2024) Fifth International Conference on Advances in Physical Sciences and Materials (ICAPSM)</li> <li>(This paper was presented in the, Fifth International Conference On Advances In Physical Sciences And Materials (ICAPSM) held at Builders Engineering College, Kangeyam, Tamil Nadu, India During 29-30, August 2024)</li> </ul>
6	Bhise, D. K., Patil, B. T., Shaikh, V. A., and Deshmukh, S. P. (2024). Comparative Economic Analysis and Investigation of Micro Lubrication Over Conventional Cooling in Manufacturing. Journal of Engineering, Project, and Production Management, 14(1), 0004. DOI http://doi.org/10.32738/JEPPM-2024-0004
7	Miriyala, V., Patil, B. T., Shaikh, V. A., Sudhakar, D. S. S., and Deshmukh, S. (2024). Investigations of Surface Roughness and Temperatures in Vegetable Oil-based n-MQL Turning of AISI 4340 Steel. Journal of Engineering, Project, and Production Management, 14(1), 0003. DOI http://doi.org/10.32738/JEPPM-2024-0003
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## Fr. Conceicao Rodrigues College of Engineering

## Department of Computer engineering

## **Publication Details**

Sr. No	Paper Publication Details	Link	Remark
1	Sushma Nagdeote; Heenakausar Pendhari; Omkar Shirsat; Raj Lad; Sujata Chiwande Esports analysis with data science AIP Conf.	https://doi.org/	
2	Praditi Rede; Sahaana Iyer; Sheetal Sharma; Sujata Deshmukh " Blockchain Based Identity Management System Using Cryptography and	DOI:	IEEE
3	Sujata Deshmukh, Prashant Deshmukh, Bhushan Patil, "Model for making industry 4.0 ubiquitous to improve national productivity	doi:	Scopus Journal
4	Pratik Harde, Ibin Babu, Prof. Prachi Patil, Prof. Monali Shetty, "Optimizing Crop Production: An Agronomic Advisor Application Based on Soil	doi:	
5	Roshni Padate ,Amit Jain , Mukesh kalla , Arvind Sharma ,"Image caption generation using a dual attention mechanism", Engineering Applications of Artificial Intelligence v Volume 123, Part A, August 2023, 106112. https://doi.org/10.1016/j.engappai.2023.106112	https://doi.org /10.1016/j.eng	Scopus Journal
6	Roshni Padate , Amit Jain , Mukesh kalla , Arvind Sharma , "Combining semi-supervised model and optimized LSTM for image caption	DOI:10.1007/s	Scopus Journal
7	Nagdeote, S., Prabhu, S. A model to perform prediction based on feature extraction of histopathological images of the breast. Multimed	https://doi.org/	Scopus Journal
8	Navigating Horizons - A Technical Exploration of Autonomous Drone Guidance - Trevelyn Noronha, Sandesh Raut, Vedant Patankar, Dr. Brijmohan Daga - IJFMR Volume 5, Issue 5, September-October 2023. DOI : 10.36948/ijfmr.2023.v05i05.6161	DOI : 10.36948/ijfmr	International Journal
9	Pratik Harde, Ibin Babu, Prof. Prachi Patil, Prof. Monali Shetty, "Optimizing Crop Production: An Agronomic Advisor Application Based on Soil	doi:	
10	Brijmohan Daga, Nitish Pathak, Srushti Suraj Shah, Austin Bernard Fernandes, Jayden Jude Dsouza, and Gayatri Pramod Varma "Human-Machine Collaboration in Business Processes	https://www.a ppleacademicp ress.com/adva nced-digital-	
12	Jagruti Nagaonkar, N. Lobo, J. Varghese, N. Fernandes, and D. D'souza, "Third Eye: A Comprehensive Solution for Road Safety", Samriddhi:A journal of physical sciences, Engineering and Technology, sms, vol. 15, no. 03, pp. 337-340, Nov. 2023.	https://doi.org /10.18090/sa	
13	Addiction in Children", 12th International Conference on Soft Computing for Problem Solving Moving Towards Society 5.0, August 11 - 13, 2023, Organized by The Department of Applied Mathematics and Scientific Computing, IIT Roorke		International Journal
14	Mask Use in Public Places", 12th International Conference on Soft Computing for Problem Solving Moving Towards Society 5.0, August 11 -13, 2023, Organized by The Department of Applied Mathematics and Scientific Computing, IIT Roorke		Internationl Conference
15	A. Amburle, C. Almeida, N. Lopes and O. Lopes, "Al based Code Error Explainer using Gemini Model," 2024 3rd International Conference on Applied Artificial Intelligence and Computing (ICAAIC), Salem, India, 2024, pp. 274-278, doi: 10.1109/ICAAIC60222.2024.10574931.	doi: 10.1109/ICAAI	Internationl Conference
16	Monali Shetty, Ryan V, Deon Gracias, Mahek Intwala, Vijay Prajapati and Hisbaan Sayed, Prachi Patil, A Comprehensive System for Sustainable Tree Plantation and Growth Monitoring using Blockchain, AI, and IoT", "International Journal of		International Journal
17	Dr. Supriya Kamoji, Sanika Rozario, Sania Almeida, Shruti Patil, Sanika Patankar ,Mental Health Prediction Using Large Language Models", "Second International Conference on Inventive Computing and Informatics organized by S.E.A. College of Engineering		Internationl Conference
18	Dr. Supriya Kamoji, Rohan Mathew, Justin Abreo, Jaden Dsa, A Privacy Preserving Sentiment Analysis using Federated Learning" "Second International Conference on Inventive Computing and Informatics organized by S.E.A. College of Engineering and Technology,		Internationl Conference
19	Rahul Kumar Bazaz, Kaustubh Mishra, Mitesh Jaiman, Vivan Stanislaus, Prajakta Dhamnaskar, "Real Time Conversion Of Sign Language To Text and Speech (For Marathi and English)", 2023/10/6, 2023, International Conference on Advanced Computing Technologies and	10.1109/ICACT A58201.2023.1	

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PAPER AWARD


# Fr.Conceicao Rodrigues College of Engineering Fr.Agnel Technical Education Complex Bandstand, Bandra Mumbai -400 050

### 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.

#### Chapter Name: Team Vaayushastra

Description of Chapter: Team Vaayushastra in an aero modelling team of FrCRCE that builds aircrafts and represents the college internationally in SAE AERO DESIGN competition.

	ncil members: 2023-24		
Sr. No	Name of the student	Post	class
1	Piyush Jogale	Captain	TE(Mech)
2	Gajanan Birajdar	Manager	TE(Mech)
3	Ashwini Chauhan	Junior	TE(AIDS)
4	Sarah Ger	Junior	SE(AIDS)
5	Aishwarya Sreejeet	Junior	SE(AIDS)
6	Kevin Rozario	Junior	SE(AIDS)
7	Ayush Kude	Junior	SE(MECH)
8	Vedang Amberkar	Junior	SE(MECH)
9	Rion Dmello	Junior	SE(MECH)
10	Shahid Khan	Junior	SE(MECH)
11	Craig Zalake	Junior	SE(ECS)

### List of council members: 2023-24



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List of Activities	conducted in year 2023-24	
List of fictivities	conducted in year 2023-24	

Sr. No	Activity/event	Description	Speaker/Judge details	Date/ Duration	No. of students participated
1	SAE AERODESIGN (WEST)	SAE Aero Design is an international competition that challenges teams to design, build, and test remote- controlled aircraft. The goal is to push the boundaries of aerodynamic s, payload capacity, and innovation while competing against top engineering teams from		21 <sup>st</sup> March	participated 11
		around the world.			
2	KJ Somaiya	The team was invited to exibit their plane in a techfest held in KJ Somaiya college of engineering	-	13 <sup>th</sup> October- 14 <sup>th</sup> October	11

Photos for each activity with caption:

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A successful presentation by the team for the SAE competition.



Team Vaayushastra at techfest 'Abhiyantriki' showcasing their plane List of participants:

	tiespunds.
Sr. No	Name of the student
1	Piyush Jogale
2	Gajanan Birajdar
3	Kevin Rozario
4	Sarah Ger
5	Aishwarya Sreejeet
6	Ashwini Chauhan
7	Ayush Kude
8	Vedang Amberkar

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Fr.Agnel Technical Education Complex Bandstand,

9	Rion Dmello
10	Shahid Khan
11	Craig Zalake

- Achievements (If any): Ranked 13<sup>th</sup> worldwide
- **Ranked 14<sup>th</sup> in presentation**
- Ranked 13<sup>th</sup> in design report





Vaayushastra 23 Gallery



Design of Aircraft



Test Flight (Borivali)



Manufactured Aircraft



Test Flight (Badlapur SamruddhiHighway)



**Technical Presentation** 

Team Vayushastra



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

#### Chapter Name: Team CRCE Formula Racing Electric

#### **Description of Chapter:**

We are Team CRCE Formula Racing Electric, a group of passionate students from Fr. Conceicao Rodrigues College of Engineering. Our mission is to design and build high-performance electric Formula-style cars that push the limits of sustainable mobility. We're committed to advancing electric vehicle technology through innovation, focusing on electric powertrains, efficient battery systems, and lightweight design. As a team, we believe in working together to create solutions that can make a real difference in the world of motorsport and beyond.

Sr. No	Name of the student	Post	Class
1.	Dhruv Pednekar	Team Captain	B.E. ECS
2.	Jonathan Joseph	Team Manager	B.E. AIDS
3.	Jason Rodrigues	CFO	B.E. ECS
4.	Amish Nair	Vehicle Dynamics Head	B.E. Mech
5.	Mahender Choudhary	E-Powertrain Head	B.E. ECS
6.	Matthew Payapilly	Chassis & Composites Head	B.E. ECS
7.	Kunal Kore	Documentation Head	B.E. Mech
8.	Shweta Yadav	Costing Head	B.E. Mech
9.	Dhruv Mahadik	Inventory Head	B.E. Mech
10.	Malcolm Pereira	Creatives Head	B.E.ECS
11.	Noah Mathew	Vehicle Dynamics Member	B.E. Mech
12.	Shahood Ansari	Electronics Member	B.E. Mech
13.	Yash More	E-Powertrain Member	B.E. Mech
14.	Ishaan Chatterjee	Vehicle Dynamics Member	T.E. Mech
15.	Fahad Qureshi	Vehicle Dynamics Member	T.E. Mech
16.	Shantanu Karekar	E-Powertrain Member	T.E. ECS
17.	Harishankar Rajan	Vehicle Dynamics Junior Member	S.E. Mech
18.	Bhavika Pawar	Vehicle Dynamics Junior Member	S.E. Mech
19.	Pranav Dhole	Vehicle Dynamics Junior Member	S.E. Mech
20.	Rudra Mhatre	Chassis and Composites Junior Member	S.E. Mech
21.	Mayank Katkar	Chassis and Composites Junior Member	S.E. Mech
22.	Krish Karelia	Chassis and Composites Junior Member	S.E. Mech
23.	Jacob Perumattil	Electronics Junior Member	S.E. ECS
24.	Smruti Bhatkar	Electronics Junior Member	S.E. Mech
25.	Anoushka Dixit	Electronics Junior Member	S.E. Mech

#### List of council members: 2023-24

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# 26. Yashraj Franci conceica Rodrigues College of Engineering S.E. Mech 27. Vedika Vart**ik.Agnel Technika/Education Conversionada** S.E. Mech

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### List of Activities conducted in year 2023-24

Sr. No	Activity/ event	Description	Speaker/ Judge details	Date/ Duration	No. of students participated
1.	Formula Bharat 2024	Formula Bharat is one of India's premier student engineering design competitions, where collegiate teams compete in designing, fabricating, and racing formula-style cars. The competition evaluates teams on Static Events (design, cost, and business presentation) and Dynamic Events (acceleration, skid pad, autocross, endurance, and efficiency), emphasizing balanced performance. It drives innovation in electric powertrains, aerodynamics, and sustainable vehicle design. Participants gain hands-on experience and networking opportunities, contributing to India's growing motorsport and engineering communities.	Formula Bharat	19/1/24- 24/1/24	16
2.	Formula Imperial	The Formula Imperia competition challenges engineering teams to design and race their own formula-style vehicles. It emphasizes innovation and teamwork through dynamic events like acceleration and endurance races. Teams also showcase their designs during static presentations to a panel of judges. This year's event attracted numerous teams, fostering camaraderie and valuable networking opportunities within the motorsports industry.	ISIE India	12/10/23- 16/10/23	16

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### **Formula Imperial 2023**



Team CRCE Formula Racing 2023 at Buddh International Circuit, Noida

### Formula Bharat



Team FRCE Formula Racing 23-24 at Kari Motor Speedway, Coimbatore

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### List of participants:

1.	Dhruv Pednekar	Team Captain	B.E. ECS
2.	Jonathan Joseph	Team Manager	B.E.
	-		AIDS
3.	Jason Rodrigues	CFO	B.E. ECS
4.	Amish Nair	Vehicle Dynamics Head	B.E.
			Mech
5.	Mahender Choudhary	E-Powertrain Head	B.E. ECS
6.	Matthew Payapilly	Chassis & Composites Head	B.E. ECS
7.	Kunal Kore	Documentation Head	B.E.
			Mech
8.	Shweta Yadav	Costing Head	B.E.
			Mech
9.	Dhruv Mahadik	Inventory Head	B.E.
			Mech
10.	Malcolm Pereira	Creatives Head	<b>B.E.ECS</b>
11.	Noah Mathew	Vehicle Dynamics Member	B.E.
			Mech
12.	Shahood Ansari	Electronics Member	B.E.
			Mech
13.	Yash More	E-Powertrain Member	B.E.
			Mech
14.	Ishaan Chatterjee	Vehicle Dynamics Member	T.E. Mech
15.	Fahad Qureshi	Vehicle Dynamics Member	T.E. Mech
16.	Shantanu Karekar	E-Powertrain Member	T.E. ECS

#### Achievements:

- 1. Formula Bharat:
  - AIR 7 Overall Electric Category
  - 4th in Business Plan Presentation
  - 8th in Engineering Design
  - 9th in Cost and Manufacturing
- 2. Formula Imperial
  - AIR 4 Overall
  - 1st in Engineering Design
  - 3rd in Innovation

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### Students Chapter Details Academic Year: 2023-24

**Chapter Name: ASME CRCE** 

**Description of Chapter:** ASME CRCE is an international student chapter of the American Society of Mechanical Engineers (ASME) network. Our chapter is committed to promoting skill development across all engineering disciplines. ASME-CRCE provides students opportunities to demonstrate their talents, learn through professionals and expand their interests through seminars, webinars, and various engaging activities within the college.

Sr. No	Activity/event	Description	Speaker/Judge details	Date/ Duration	No. of students participated
1	Human On Mars	A webinar podcast with an analogue astronaut	Dr. Kshitij mall	28 <sup>th</sup> October 2023	26
2	Crescendo 2023- 24	Technical Event	ASME CRCE	22 <sup>nd</sup> February 2024	64
3	I.V. to KLT Automotives	Visit to an Automotive chassis manufacturing		12 <sup>th</sup> March 2024	50

### List of Activities conducted in year 2023-24

Photos for each activity with caption:

1. Human On Mars Webinar

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Dr. Kshitij Mall sharing his pictures he took at an Expo., where he met some Indian Scientists.



ASME council members interacting with Dr. Kshitij.

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Dr. Kshitij sharing his experiences and some inside information about the artificial Mars Desert Research Station.

### Picture Captured During Gear Combination Industrial Visit to KLT Automotives



Picture taken of the students present during the IV at the entrance

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Company person explain what exactly they manufacture



Company person explaining the rules of conduct during the visit



**Company Senior explaining the basics of a car chassis** 

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.Team ABADHA CRCE Achievements: Baja SAE India Sales Presentation: AIR 6th, Design Presentation: AIR 20th, CAE Presentation: AIR 5th (Venue:BVRIT,Hyderabad ) Date 6th -9th March 2024

Achievements in January 2024

- Baja SAE India
  - Sales presentation AIR 5<sup>th</sup>
  - Design presentation AIR 20th
  - CAE report AIR 15th
  - Electrical technician inspection clear
  - Overall rank AIR 67<sup>th</sup>



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Team Vaayushastra participated in SAE Aero Design, East : 11th Ran	k Globally, 10th in
Design Report and 11th in Presentation.	

### Advanced Class - Overall Standings

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Standings	University (Team)	Country	Design Scores	Presentation Scores	Mission Performance Scores	Technical Inspection Deductions	Overal Score
1	<b>219</b> - Georgia Institute of Technology	United States	42.3292	44.4167	46.6500	-5.0	128.3958
2	230 - Wroclaw University of Technology	Poland	37.7120	43.3500	27.8626	-	108.924
3	<b>213</b> - Concordia University	Canada	32.9106	39.9550	17.0150	-	89.880
4	<b>226</b> - Universite Laval	Canada	31.3322	42.0250	4.1700	-	77.527
5	<b>218</b> - K.J.Somaiya College of Engineering	India	38.1561	39.1167	0.0000	-	77.272
6	<b>216</b> - Univ of Michigan - Ann Arbor	United States	39.3192	35.1375	0.0000	-	74.456
7	220 - Vellore Institute of Technology	India	38.5430	35.0000	0.0000	-	73.543
8	<b>221</b> - Ecole Polytechnique Montreal	Canada	37.1453	36.1625	0.0000	-	73.307
9	<b>215</b> - Western University	Canada	33.8842	36.8375	0.0000	-	70.721
10	<b>229</b> - Nanjing Univ of Aeronautics & Astronauti	China	33.8159	31.1333	0.0000	-	64.949
11	212 - Fr Conceicao Rodrigues College of Engrg	India	31.3926	33.3833	0.0000		64.775

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### b)Student Participation In National and International Level Competitions



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Aditi Gupta, Joel Pawar, Simona Rumao Aditi Gupta, Joel Pawar, Rikita Rumde, were among the Agnethon Hackathon 2024 Bhushan Pakhle, Amey Bagwe, Wesley Lewis, Simona Rumao Participated in All India Council Finalist for Technical Education's (AICTE) Innovation, **Design and Entrepreneurship (IDE) Bootcamp** Phase-II Ministry of Education MoE's INNOVATION CELL Innovation, Design and Entrepreneurship (IDE) Bootcamp Phase-II Certificate of Participation GNETHON '24 ATE OF PARTICIPATION This Certificate is awarded to Singona Louis Rumao, Fr. Conceicao Robhiques College of Engineer for participating in Innovation, Design and Entrepreneurship (IDE) Bowcamp from 29th January 2024 to 2nd February 2024 at Vardhaman College of Engineering, Hyderab HELD ON Ministry of Education's Innovation Cell (MIC) & All India Council for Abley The Raundw J.G. Sithany Prof. T. G. Sitharam Chairman, AICTE Joel Pawar won Quasar Hackathon 2024 at Shaun Pimenta won Hackathon 2024 Vasantdada Patil College of Engineering Sion VASANTDADA PATIL PRATISHTHAN'S Winner for the Domain COLLEGE OF ENGINEERING AND VISUAL ARTS Intelligent and Automation **Team : Pixel** Certificate Of Merit THIS CERTIFICATE IS PRESENTED TO Ms/Mr Joel Pawar of Ex- Conceirco Rodrigues College of Engineering, Bandra has secured 1st place in Quasar 2.0, a 24-hour hackathon held on the 16th and 17th of March 2024 organized by Vasantdada Patil Pratishthan's College of Engineering and Visual Arts, Mumbai. She/He has achieved this feat with Smart City as the sector. QUASAR2. AshokOchanan Bath Shri, Nandkumar Katkar Adv. Appasaheb Desai Prof. Ashok Chavan **Campus Director** General Secretary President Prof. Swapnil Desai Head, T&P

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Soham Parab was among the Top 10 TSEC Hacks Web/App Domain.

Soham Parab built an App for Fire and Security Association of India (FSAI) - Safe Ganesh Mandal Assessment.



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3 Second Year students from the Computer Department, Shaun Mendes, Susan Fernandes and Sharian Dabre have bagged the third prize at the national level hackathon held at Madras Institute of Technology, Chennai in which over 330 teams had participated from all over India. They secured the 3rd rank and have won a cash prize as well.

#### Team 4i

- 1) Vinish Rexson(SE Comps B)
- 2)Yash Punmiya (SE comps B)
- 3) Harsh Dalvi(SE Comps A)
- 4) Nishant Maurya(SE Comps B)



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and documents due to several reasons. To solve these problems, we propose a system which will provide hard copies as well as soft copies(soft copies only for bonafide) of documents after verifying the data of the student from the database. System consists of 3 main pillars - Offline system, Online system and Courier Service

"Won Award at GMRT Science Day- Arnav Chawathe , Prof. Vaibhav Godbole"

4



- 5 "MACHINE LEARNING BASED WAGES INCREASE THROUGH EMPLOYEE PERFORMANCE MONITORING" Recent digitalization has brought about vast renewal in labour virtually in every sector of the economy during the past few decades. It is currently the beginning of an even larger and faster change because of recent advancements in machine learning (ML), which can accelerate the pace of automation itself. Even though it is clearly visible that ML is a "general purpose technology", at par with the steam engine and electricity, which inspires several different innovations and capacities, there is little agreement on the projected consequences on the workforce and the economy. This research determines each employee's salary increase at a particular organization based on several factors and the datasets that are available. To determine which machine learning algorithm is most apt and appropriate for the task, two machine learning algorithms are compared. The use of machine learning, a useful tool, is being made to facilitate and ease the work of business management systems.
- **6 Tree Transparency:** The proposed platform has several unique and distinctive features that set it apart from traditional tree planting initiatives. The platform emphasizes the importance of proper monitoring and evaluation of the trees planted, which is often overlooked in traditional tree planting initiatives. To monitor the growth of trees based on a reward system. Analysis oftrees planted with the help of geo tag, sensors and image detection. It promotes transparency and accountability by enabling NGOs and government bodies to track the growth and lifespan of each tree planted, as well as the usage of funds using Blockchain. Transparent adoption of trees.Our proposed platform for planting and monitoring trees stands

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	out due to its focus on transparency, citizen involvement, and data-driven decision- making.NGOs and government bodies can transfer funds and track tree growth, ensuring accountability and effective use of funds. Citizen volunteers monitor treesand receive rewards, promoting community involvement and proper care. Data collected is used to make informed decisions on future planting and care initiatives. Sustainability-focused: Our platform is focused on ensuring the the long-term survival of trees planted. By preventing premature death, we can contribute to a healthier environment and a more sustainable future. "The above Project Team has Participated in Yukti Innevation Challenge"
-	"The above Project Team has Participated in Yukti Innovation Challenge"
7	Automatic Electric Vehicle Charging Station
	Achievements:
	<ul> <li>Achieved First place in PRAKALP 2023 (Hardware) category held on 10<sup>th</sup> March 2023 organized by CRCE, Mumbai</li> <li>Selected for round 3 of SPIT innovation cup and shortlisted in top 12 among 140 teams. The team was awarded amount 5000/- as a sponsorship.</li> <li>Successfully completed Evaluation in Innovation Cup 23 AICTE- SPICES and AICTE IDEA lab sponsored event conducted on 8th April 2023 by IEEE- WIE, SPIT , Mumbai.</li> </ul>

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8	<ul> <li>Meta Store - Shop Virtualizer Although e-commerce is a very old term, it remained a luxury in India for a long time until Reliance launched Jio. It had a very big role to provide internet to everyone in India in turn promoting online shopping. The introduction to cash on delivery and 30 day return policy gave confidence to the young Indian adopters. In today's global economy, advanced technology plays an important role in the fashion retail industry. With advances in technology like Augmented Reality, retailers can offer customers the ability to try on clothing virtually. Our project acts as an intermediary step to combine offline and online shopping. This is the crux to the idea of virtual shops. It gives the users the security of offline shopping with the modern and slick experience of online shopping. The shopkeeper can click pictures of the apparel in the given format and then develop materials and textures for the 3D model. The user can then virtually try different apparel on the web app.</li> <li>Objectives:</li> <li>To develop a web application to virtualize the store catalog.</li> <li>To build a convolutional neural network to convert apparel images to 3D Models.</li> <li>To try the different apparel on a 3D human model.</li> <li>To view the created outfits in Augmented Reality</li> </ul>
	Published Indian patent.
	Application Number: 202321018653
	Date of filing: 19/03/2023
	Publication date: 14/04/2023

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