

#### MESSAGES

#### Dr. B. Babu Manoharan M.A., M.B.A., Ph.D. Chairman

It gives me immense pleasure to commend the staff and the students of the Department of Electronics and communication Engineering for this excellent package "SPARKZ". This Newsletter maps the merits and milestones accomplished by the department. I sincerely hope that the efforts put in by the students and the staffs help them in all their future endeavours.

#### Mrs. S. Jessie Priya M.Com. Executive Director

This Newsletter is testament to the academic excellence of the college which in myriad ways is ingrained in our culture. It gives me great pleasure to see the exceptional potential of the students of the Department of Electronics and communication Engineering, in various extracurricular activities as well as in academics. I congratulate the staff and the students on bringing out this wonderful Newsletter.

#### Mr. B. Shashi Sekar M.Sc. Managing Director

I am very happy that our institution has shown a marvellous presentation of the activities through "SPARKZ". I congratulate the staff and students for their excellent effort. Today, as we march towards a technological world, we aspire to open new vistas in the field of education for our students and this Newsletter helps us in our efforts.

#### Dr. S. Arivazhagan S M.E., Ph.D. Principal

I take this opportunity to laud the efforts of all those who were involved in the making of this Newsletter from the Department of Electronics and communication Engineering, St. Joseph's Institute of Technology. I would also like to appreciate the relentless efforts of our teachers for giving their best in bringing out the best in each student helping them achieve their goals.

We invite you to explore our Newsletter "SPARKZ". We are sure that this Newsletter will quench the technical thirst of the students. It also unveils the department accomplishments in the past one month. We express our gratitude to our Chairman Dr. B. Babu Manoharan, M.A., M.B.A., Ph.D., Executive Director Mrs. S Jessie Priya., M.Com. Managing Director Mr. B Shashi Sekar., M.Sc., Principal Dr. S. Arivazhagan S M.E., Ph.D. HOD Dr. P G V Ramesh M.Tech., Ph.D, and staffs for providing us a podium to express our innovation and encouraging us in completing this edition of "SPARKZ".

## VISION

To come forth as an eminent department in the field of electronics and communication engineering to foster research in pioneering technologies and engender professionals having technical excellence and ethical values to serve the industry and society.

## MISSION

**Ingenious** - To provide the best resources in teaching, learning and other to provide the best resources in teaching, learning and other potential in the field of Electronics and Communication Engineering.

**Technical Excellence and societal development** - To inculcate technical knowledge, appraise leadership qualities, team work and ethical practices in students so as to meet the expectations of the industry as well as the society.

**Skill Enhancement -** To organize exclusive courses, conferences, seminars on the current technological developments that imparts knowledge in pioneering technologies which will be an added benefit for bringing out the various talents in the students and faculties.

**Industry Interaction-** To uphold connectivity with industries to get on par with the recent technologies, consequently as to progress as center of excellence in research.

**Career Guidance -** To foster career improvement through placements, higher education, research and entrepreneur skills by continuous training and guidance.

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#### SCHOOL VISIT

#### **Students Demonstration in Technological** Advancements



On November 5, 2024, second-year students from the Department of Electronics and Communication Engineering (ECE) visited Velammal Matriculation Higher Secondary School in Mogappair, accompanied by faculty members. The visit aimed to inspire young students by showcasing engineering advancements and encouraging a passion for technology. The ECE students demonstrated nearly 15 innovative projects, spanning various fields within electronics and communication benefits with 500+ students.





#### SCHOOL VISIT INSPIRING FUTURE INNOVATORS







On November 16, 2024, the Department of Electronics and Communication Engineering, along with second-year students, visited Colours Indian School in Kandigai to demonstrate their mini projects. During the visit, students showcased their innovative work, highlighting practical applications of engineering concepts and technologies. They also presented a session on "Engineering Excellence," emphasizing the importance of creativity and problem-solving in the field of engineering. The visit was an enriching experience for both the students and the school community, fostering a spirit of learning and collaboration.

#### INDUSTRY-ACADEMIA COLLABORATION CAPITAL COLOURS AND ADDITIVES



Dr. G.S. Uthayakumar, Associate Professor from the Department of ECE, visited Capital Colours and Additive Industries Pvt. Ltd. on November 17, 2024, as part of an Industry-Institute Interaction (III) initiative. The visit aimed to foster collaboration between academia and industry, focusing on advancements in materials technology and their applications in electronics.Dr. Uthayakumar engaged with the R&D team, discussing innovations in additive manufacturing, functional materials, and sustainable solutions. The discussions explored opportunities for student internships, joint research projects, and skill development programs, aligning academics with industrial needs. This visit enhanced ties with the industry, providing insights into real-world challenges, ensuring curriculum relevance, and reinforcing the institution's commitment to producing industry-ready engineers.



## INDUSTRY-ACADEMIA COLLABORATION TATA INFOTECH Pvt. Ltd.,



Dr. G.S. Uthayakumar, Associate Professor in the Department of Electronics and Communication Engineering, visited Tata InfoTech Pvt. Ltd., Bangalore, and HCL Technologies, Hyderabad, on November 17, 2024, as part of an industry-institute interaction initiative. At Tata InfoTech, he engaged with Mr. Prasad and his team to explore collaborative opportunities in cutting-edge technologies. In Hyderabad, he met with Mr. E. Ramesh, Senior Vice President of HCL Technologies, to discuss avenues for research partnerships and skill development. These visits aim to bridge the gap between academia and industry, fostering innovation and practical learning.



#### INDUSTRY-ACADEMIA COLLABORATION WITH SILICON LABS





Dr. G.S. Uthayakumar, Associate Professor from the Department of Electronics and Communication Engineering (ECE), visited Silicon Labs on 17th November 2024 as part of an Industry-Institute Interaction initiative. The visit aimed to explore opportunities for collaboration in cutting-edge semiconductor and IoT technologies. Discussions were held to align academic research with industry requirements, fostering innovation and skill development among students.

### INSPIRING YOUNG MINDS: A JOURNEY INTO THE WORLD OF ELECTRONICS AND INNOVATION



Students from Shantiniketan Matriculation Higher Secondary School, Sembakkam F Block, Velachery, visited the Department of Electronics and Communication Engineering on November 21, 2024. The visit aimed to inspire young minds by showcasing the latest advancements in electronics and communication technologies. Students were introduced to cutting-edge laboratories, interactive demonstrations, and innovative projects by faculty members. The visit provided an enriching experience, sparking interest in engineering and technological careers.

#### INDUSTRY-INSTITUTE INTERACTION AT AUTO EV INDIA EXPO







Dr. P.G.V. Ramesh, Professor and Head of the Department and Mr. J. Bino, Assistant Professor of Electronics and Communication Engineering, participated in the Auto EV India Automotive and EC Technology Expo held from November 27-29, 2024, at the KTPO Convention Center, Whitefield, Bangalore. The event was a significant platform for industry-institute collaboration, focusing on the rapidly evolving field of Electric Vehicles (EVs) and semiconductors.

During their visit, they interacted with over **150 companies** from the semiconductor sector within the EV industry, gaining valuable insights into the latest advancements in technology. They explored cutting-edge innovations in electric mobility, semiconductor devices, and their applications in the automotive industry.

The expo served as a platform for discussing the integration of semiconductors in the development of energy-efficient, sustainable EV solutions. The interaction enabled the faculty members to establish meaningful connections with industry leaders, researchers, and entrepreneurs, fostering potential collaborations in the field of electronics and communication.

## STUDENT ACHIEVEMENTS NPTEL EXAMS

In a remarkable achievement, 47 final-year students from the Department of ECE successfully cleared the NPTEL exam. Among them, one student earned the prestigious Elite+Gold certification, two secured Elite+Silver, and 27 others achieved Elite status, while 17 completed the course successfully. Additionally, 18 third-year students excelled, with 12 earning the Elite title and 6 completing the course successfully. Second-year students also performed admirably, with 12 clearing the exam, including four who achieved Elite certification and eight who completed the course successfully. This accomplishment reflects the academic excellence and dedication of the students across all years.

S.no	Course Name	Name	Year	Certificate Type
1	Sports and Performance Nutrition	AADHAV A	IV	Elite
2	Big Data Computing	AARTHI S	IV	Elite
3	Introduction to Internet of Things	Anbuselvanrajendran	IV	Elite
4	Introduction to Internet of Things	ARAVINDAN D	IV	Elite+Silver
5	Electronic Systems for Cancer	Dhikshitha G	IV	Elite
	Diagnosis			
6	Problem Solving Through Programming in C	Dhino Williams D	IV	Successfully completed
7	Electronic Systems for Cancer Diagnosis	Dolley Maria C	IV	Elite
8	Introduction to Industry 4.0 and	Elakkiya S P	IV	Successfully
	Industrial Internet of Things			completed
9	Introduction to Industry 4.0 and Industrial Internet of Things	G Ruby Mejela	IV	Elite
10	Big Data Computing	GOVARTHINI A	IV	Elite
	Stress Management	H DHANUSH	IV	Elite+Silver
11	Electronic Systems Design: Hands-on Circuits and PCB Design with CAD Software	H DHANUSH	IV	Elite
12	Introduction to Internet of Things	HARI GANESH C	IV	Elite
13	Adolescent Health and Well- Being: A Holistic Approach	HARI PRASATH K G	IV	Successfully completed
14	Food Packaging Technology	HARSAN RAJ R	IV	Successfully completed
15	Introduction to Industry 4.0 and Industrial Internet of Things	Hemanth A	IV	Elite
16	Introduction to Industry 4.0 and Industrial Internet of Things	Ishitha G	IV	Elite

17	Big Data Computing	Janani G	IV	Elite
18	Introduction to Industry 4.0 and	Janani V	IV	Elite+Silver
	Industrial Internet of Things			
S.no	Course Name	Name	Year	Certificate Type
19	Microelectronics: Devices to	JOEBIN J S	IV	Elite
	Circuits			
20	Introduction to Industry 4.0 and	KARTHIK K	IV	Elite
01	Industrial Internet of Things Microelectronics: Devices to	VEEDTHANIA D N	11.7	C
21	Circuits	KEERTHANA R N	IV	Successfully completed
22	Introduction to Internet of Things	KISHORE KANNA H	IV	Elite
22	Big Data Computing	LAAVANIYA G	IV	Elite
23	Operating System Fundamentals	LIMBA ML	IV	Successfully
			11	completed
25	Big Data Computing	Lochana R	IV	Elite
26	Microelectronics: Devices to	MANISANKAR K	IV	Elite
	Circuits			
27	Applied Accelerated Artificial	Michael Arul Abel J	IV	Elite
	Intelligence			
28	Big Data Computing	Nandhini S	IV	Elite
29	Big Data Computing	NITHISH V J	IV	Elite
30	Introduction to Industry 4.0 and	Noor Mahmood A	IV	Elite
	Industrial Internet of Things	<b>N</b> 11 <b>Y</b>	** *	
31	Big Data Computing	Pavithra J	IV	Elite
32	Introduction to Industry 4.0 and	Ramya Sri V	IV	Elite
33	Industrial Internet of Things Digital Circuits	ROSHINI R	II.	Successfully
33	Digital Circuits	KOSHINI K	IV	Successfully completed
34	Introduction to Industry 4.0 and	Roshith GS	IV	Elite
	Industrial Internet of Things	Kösintii Ob	1.	Linte
35	Introduction to Industry 4.0 and	Sharmila M	IV	Elite
	Industrial Internet of Things			
36	Introduction to Industry 4.0 and	SHIVARAJNAATHAN	IV	Elite
	Industrial Internet of Things			
37	Introduction to Industry 4.0 and	SIBIYA TRINI LYDIA	IV	Elite+Silver
	Industrial Internet of Things	K		
38	Introduction to Industry 4.0 and	Sindhuja S	IV	Elite+Silver
	Industrial Internet of Things			
39	Introduction to Industry 4.0 and	Sooraj Mano Ukram T	IV	Elite
4.0-	Industrial Internet of Things	G		171'
40	Introduction to Industry 4.0 and	SRI RANJANI G	IV	Elite
	Industrial Internet of Things	SWETHA M	TV.	Elita   Silver
41	Introduction to Industry 4.0 and Industrial Internet of Things	SWETHA M	IV	Elite+Silver
42	Industrial Internet of Things Introduction to Industry 4.0 and	TAMILARASI M	IV	Elite
-12	Industrial Internet of Things		1 V	Linte
	mousting motifie of Things			

43	Introduction to Industry 4.0 and	Thrisha R	IV	Successfully
	Industrial Internet of Things			completed
44	Digital Circuits	VARSHA M	IV	Elite
45	Introduction to Industry 4.0 and	Veronica nimeesha R	IV	Elite
	Industrial Internet of Things			
46	Introduction to Industry 4.0 and	VERSHA DEVI V V	IV	Elite
	Industrial Internet of Things			
47	Introduction to Industry 4.0 and	Vijayalakshmi S	IV	Elite
	Industrial Internet of Things	, ijujuluksiinin E	- '	
	industrial internet of Things			
S mo	Commo Nomo	Nome	Veen	Contificate True
S.no	Course Name	Name	Year	Certificate Type
48	Introduction to Industry 4.0 and	Aarthi S	III	Elite
	Industrial Internet of Things			
49	Introduction to Industry 4.0 and	Abirami E	III	Elite
	Industrial Internet of Things			
50	Digital VLSI Testing	AGNES A	III	Successfully
				completed
51	Introduction to Industry 4.0 and	Akshay Anil kumar	III	Elite
	Industrial Internet of Things			
52	Introduction to Internet of Things	Akshay Kumar V	III	Elite+Silver
53	Introduction to Internet of Things	AKSHAYA	III	Elite
		BHARATHI S		
54	Introduction to Industry 4.0 and	ANGELIN R	III	Elite
	Industrial Internet of Things			Linte
55	Introduction to Industry 4.0 and	Annie Evangeline S	III	Elite
55	Industrial Internet of Things	Annie Lvangenne 5	111	Linc
56	Ċ	AD AVIND C	III	Successfully
56	Digital VLSI Testing	ARAVIND S	III	Successfully
				completed
57	Introduction to Internet of Things	AVINASH P	III	
58	•	Balaji k	III	Elite
	Industrial Internet of Things			
59	Introduction to Industry 4.0 and	BHARATH S	III	Elite
	Industrial Internet of Things			
60	Digital Circuits	CHANDRA SEKARAN	III	Successfully
		S		completed
61	VLSI Design Flow: RTL to GDS	Chandrakiran G	III	Successfully
				completed
62	Introduction to Industry 4.0 and	Deborah Helen Bright G	III	Elite
	Industrial Internet of Things	0.10		
63	Introduction to Industry 4.0 and	DevaNarayanan	III	Elite
	Industrial Internet of Things			
64	Introduction to Industry 4.0 and	DEVAPRIYA V	III	Elite
04	•		111	Linte
	Industrial Internet of Things		TTT	T114
65	Introduction to Industry 4.0 and	DHARSHINI M	III	Elite
	Industrial Internet of Things			

66	Introduction to Industry 4.0 and	Divya Lakshmi AP	III	Elite
	Industrial Internet of Things			
67	Introduction to Industry 4.0 and	Divyadarshini A	III	Elite+Silver
	Industrial Internet of Things			
68	Introduction to Industry 4.0 and	ELVIN JOSEPH	III	Elite
	Industrial Internet of Things			
69	Digital VLSI Testing	Evangelin Emeema S	III	Elite
70	Introduction to Industry 4.0 and	GAYATHRI R	III	Elite
	Industrial Internet of Things			
71	Principles of Modern CDMA/	Jeevadharshini B	III	Elite
	MIMO/ OFDM Wireless			
	Communications			
72	Google Cloud Computing	LAKSHMI PRABHA V	III	Elite
	Foundations			
73	Introduction to Industry 4.0 and	Nanditha D	III	Elite
	Industrial Internet of Things			
74	Introduction to Industry 4.0 and	Priyanga s	III	Elite
	Industrial Internet of Things			
75	Introduction to Industry 4.0 and	RAKSHANA S	III	Elite
	Industrial Internet of Things			
76	Stress Management	Ranjith kumar B	III	Successfully
				completed
77	Introduction to Industry 4.0 and	Renee Pearlin P	III	Elite+Silver
===	Industrial Internet of Things		~~~	a
78	Introduction to Industry 4.0 and	Reshi sakthi PA	III	Successfully
=0	Industrial Internet of Things			completed
79	Introduction to Industry 4.0 and	Roshan G	III	Elite
00	Industrial Internet of Things	0 1 1	TTT	<b>F1'</b> . 0'1
80	Microelectronics: Devices to	S Thirunaavukarasan	III	Elite+Silver
01	Circuits	Calaria a	TT	El'4
81	Introduction to Industry 4.0 and	Sahana s	III	Elite
02	Industrial Internet of Things	Soi proceth D	TT	Elitar Silver
82	Introduction to Industry 4.0 and Industrial Internet of Things	Sai prasath B	III	Elite+Silver
83	Introduction to Industry 4.0 and	Sakshi R	III	Elite
63	Industrial Internet of Things	Jaksiii K	111	Line
84	Simulation of Communication	Samyuktha B	III	Elite
04	Systems using Matlab	Salliyuktila D	111	Line
85	Problem Solving Through	Samyuktha B	III	Successfully
05	Programming in C	Sallyuktila D	111	completed
86	Introduction to Machine Learning	SANJEEVI R	III	Elite
87	Introduction to Internet of Things	Sathish G	III	Elite
88	Basic Electrical Circuits	SenthilKumar D	III	Successfully
00	Basic Electrical Circuits	Solulli Villa D	111	completed
89	Basic Electrical Circuits	Sherwin J Clitus	III	Successfully
09	Eusie Electrical Circuits	Sher win 5 Chtub	111	completed
				compreted

90	Introduction to Industry 4.0 and	Shinie kiruba E	III	Elite+Silver
	Industrial Internet of Things			
91	Introduction to Industry 4.0 and	Shobanasri S	III	Elite
	Industrial Internet of Things			
92	Introduction to Industry 4.0 and	Shree Abinaya AP	III	Elite
	Industrial Internet of Things			
93	Introduction to Industry 4.0 and	Shrinidhi S	III	Successfully
	Industrial Internet of Things			completed
94	Ethical Hacking	Shyamalavannan	III	Successfully
		Geethakrishnan		completed
95	Introduction to Industry 4.0 and	Sowmya S	III	Elite
	Industrial Internet of Things			
97	Introduction to Industry 4.0 and	Subashri M	III	Elite
	Industrial Internet of Things			
98	Introduction to Industry 4.0 and	Subasri R	III	Elite
	Industrial Internet of Things			
99	Introduction to Industry 4.0 and	Subiksha M	III	Elite
	Industrial Internet of Things			
100	Introduction to Industry 4.0 and	SUGANTHI A	III	Elite+Silver
	Industrial Internet of Things			
101	Introduction to Industry 4.0 and	TajJasmineFathima SN	III	Elite
	Industrial Internet of Things			
102	Introduction to Industry 4.0 and	THIRILOKSHA S	III	Elite
	Industrial Internet of Things			
103	Digital VLSI Testing	UBADULLA R	III	Successfully
				completed

S.no	Course Name	Name	Year	Certificate Type
104	Digital Circuits	Abhinayaa	IV	Successfully
				completed
105	Introduction to Internet of Things	ABISHEIK E	IV	Elite+Silver
106	Digital Circuits	Akshaya Jaichandra	IV	Successfully
		Mohan		completed
107	Introduction to Internet of Things	ANCY SHINE G S	IV	Elite
108	Google Cloud Computing	ANU S	IV	Elite
	Foundations			
109	Introduction to Semiconductor	Arul Vamshika A	IV	Successfully
	Devices			completed
110	Introduction to Internet of Things	Aswin Kumar Prabhakar	IV	Elite
111	Introduction to Semiconductor	Balachandhar D	IV	Elite
	Devices			
112	Introduction to Internet of Things	BENNY HINN J	IV	Elite+Silver
113	Digital Circuits	BENNY HINN J	IV	Successfully
				completed

114	Artificial Intelligence: Search	Bharathvaj S	IV	Successfully
	Methods for Problem solving			completed
115	Digital Circuits	Buvanesh D	IV	Successfully
				completed
116	Introduction to Internet of Things	C G JENOLIN JOY	IV	Elite+Silver
117	Introduction to Internet of Things	Chris Roger J	IV	Elite
118	C-Based VLSI Design	D Shobana	IV	Successfully
				completed
119	Google Cloud Computing	DEEKSHITA K	IV	Successfully
	Foundations			completed
120	Electronic Systems Design:	Deepak kumaran	IV	Elite
	Hands-on Circuits and PCB			
	Design with CAD Software			
121	Introduction to Semiconductor	Ganga K	IV	Successfully
	Devices	-		completed
122	Digital Circuits	Gokul raj	IV	Successfully
				completed
123	Digital Circuits	Govarthini G	IV	Successfully
	J			completed
124	Digital Circuits	Hariharan V B	IV	Successfully
				completed
125	Introduction to Internet of Things	HARINI LAKSHMI S	IV	Elite+Silver
126	Introduction to Internet of Things	HARINI S	IV	Elite+Silver
120	Introduction to Internet of Things	HARISH RAM R	IV	Elite
127	Introduction to Internet of Things	Hema S	IV	Elite+Silver
120	Introduction to Internet of Things	HUBERT A	IV	Successfully
149	introduction to internet of Things	HUDLKI A	1 V	completed
130	Google Cloud Computing	Jarvis	IV	Successfully
130	Foundations	J di V15	1 V	completed
131	Digital Circuits	jayasurya	IV	Successfully
131	Digital Circuits	Jayasurya	1 V	completed
132	Digital Circuits	John Harrison Y	IV	Successfully
152	Digital Circuits		1 V	completed
133	Developing Soft Skills and	John Harrison Y	IV	Elite
155	Personality		1 V	Ente
124	•	IZ X ANAINI	TV/	TI:
134	Introduction to Internet of Things	K YAMINI	IV	Elite
135	Introduction to Semiconductor	karishma	IV	Successfully
126	Devices	Varran D	TX /	completed
136	Introduction to Semiconductor	Karunya R	IV	Successfully
105	Devices			completed
137	Digital Circuits	M ABDUL KATHIR	IV	Successfully
100		JAILANI	~~ ~	completed
139	Introduction to Internet of Things	M SUPRIYA	IV	Elite
140	Introduction to Internet of Things	MOWRIYA SRIRAM S	IV	Elite
	Introduction to Internet of Things	NABEEL AHMED I	IV	Elite+Silver
141 142	Introduction to Internet of Things	Nandhini V	1 1	Elite+Silver

143	Digital Circuits	Naren karthik srinivasan	IV	Successfully
				completed
144	Introduction to Internet of Things	Nilananthanna S	IV	Elite
145	Introduction to Internet of Things	POORNIMA B	IV	Elite+Silver
146	Introduction to Semiconductor	PRIYADHARSHINI Y	IV	Successfully
	Devices			completed
147	Introduction to Internet of Things	Ridsiya Nimi L J	IV	Elite+Silver
148	Introduction to Internet of Things	Rogini P	IV	Elite
149	C-Based VLSI Design	ROMOLA ROY A	IV	Successfully
				completed
150	Introduction to Internet of Things	ROSHITHA PRINCY F	IV	Elite+Silver
151	Digital Circuits	S Balaji	IV	Successfully
				completed
152	Introduction to Internet of Things	S keerthana	IV	Elite+Silver
153	C Programming and Assembly	S Michael Antony	IV	Successfully
	Language	Vimalan		completed
154	Introduction to Internet of Things	S N Henesh	IV	Elite
155	Introduction to Internet of Things	S vasanth	IV	Elite
156	Food Packaging Technology	SAM NICKALSON L	IV	Elite
157	Introduction to Internet of Things	Samicksha P	IV	Elite
158	Cyber Security and Privacy	Samuel Sangeeth Ponraj	IV	Successfully
				completed
159	Countering Stage Fright	Sanjay Raja R	IV	Elite
160	Introduction to Internet of Things	Shree Nee Jananee R D	IV	Elite+Silver
161	Introduction to Internet of Things	Srivardhini S	IV	Elite+Silver
162	Introduction to Semiconductor	SURENDAR P	IV	Successfully
	Devices			completed
163	Introduction to Internet of Things	Tharunya R A	IV	Elite
164	Introduction to Internet of Things	Varshine Akshall B	IV	Elite
165	Introduction to Internet of Things	Vimalan	IV	Elite
166	Introduction to Semiconductor	VISHAL R	IV	Elite
1 (7	Devices		TX 7	0 6 11
167	Introduction to Internet of Things	VISHAL R	IV	Successfully
				completed

#### **PUBLICATIONS**

J. Meril Steeriff and M. Merline Monica, students from the Department of Electronics and Communication Engineering, along with their guides Dr. C. Mohan, Assistant Professor and Dr. M. Senthil Murugan, Associate Professor have successfully published a research paper titled "A Miniaturised Dual-Band Hexagonal-Shaped Frequency Selective Surface with Slot Loading." The paper was presented at a prestigious IEEE Conference and officially published on November 4, 2024. This research introduces an innovative frequency-selective surface design, offering enhanced performance in dual-band applications, showcasing their technical expertise and research acumenia.

#### **PLACEMENTS**



The Department of Electronics and Communication Engineering proudly congratulates eight students from the 2021-2025 batch for securing placement at LTIMindtree. The selected students, including Aadhav A, Harini D, Harini R, Janani V, Ishitha G, Nithish S, Yamini S, and Swathi R, have been offered a competitive CTC of 4 LPA for the role of Graduate Engineer Trainee. Their achievement highlights the department's commitment to academic excellence and career-oriented training. This milestone reflects the hard work of students and the dedicated efforts of faculty members in ensuring industry readiness. This achievement highlights the robust placement initiatives and the support provided by the institution to prepare students for global opportunities. Through skill enhancement programs, mock interviews, and continuous mentoring, the department ensures students excel in competitive recruitment processes. The accomplishment of these students sets a benchmark for peers and reinforces the strong relationship between St. Joseph's Institute of Technology and top-tier companies like LTI Mindtree.



The Department of Electronics and Communication Engineering proudly congratulates Arun Kumar, a student from the 2022-2026 batch, on his extraordinary placement achievement. He has been selected for an internship at a reputed product-based company, receiving a monthly stipend of ₹89,000 along with a one-time bonus of ₹50,000 upon conversion. Post-internship, he has secured a remarkable offer with a CTC of ₹44 LPA per annum, setting a new benchmark for placements.

This accomplishment reflects his hard work, technical expertise, and commitment to excellence in his field. The training and placement initiatives by the college have played a significant role in preparing students for such competitive opportunities. His success underscores the department's focus on providing industry-relevant knowledge and skill development. Arun Kumar's achievement is an inspiration to his peers and a testament to the quality of education at St. Joseph's Institute of Technology. The institution wishes him continued success in all his future endeavours.



The Department of Electronics and Communication Engineering proudly congratulates Mr. Gopinath V from the 2021–2025 batch for securing placement as a **Technical Support Engineer** at **Zoho Corporation**. This significant accomplishment reflects his dedication and hard work throughout his academic journey.

He has been offered an impressive package of ₹5.6 LPA, showcasing his technical expertise and professional potential. The department takes immense pride in nurturing students who achieve such milestones and contribute to the institution's legacy of excellence.

His success stands as a testimony to the rigorous training and academic guidance provided by the ECE department. His accomplishment is expected to inspire his peers and juniors to aim high and excel in their pursuits.

Zoho Corporation, known for its innovation and workplace culture, is an ideal platform for Mr. Gopinath to further enhance his skills and career. His achievement brings laurels to the institution and strengthens its reputation in the industry.

We extend our heartfelt congratulations to Mr. Gopinath and wish him continued success in his career. The department remains committed to providing opportunities for students to excel and achieve their dreams.



Dr. P.G.V. Ramesh, Professor and Head of the Department of Electronics and Communication Engineering, has successfully completed a 12-week NPTEL course on "Digital VLSI Testing." The course, which focused on advanced concepts of digital VLSI design and testing methodologies, further enhances his expertise in the field.



Dr. C. Gnana Kousalya, a professor from the Department of Electronics and Communication Engineering, has successfully secured an ELITE certification in the NPTEL 12-week course on "Machine Learning and Deep Learning - Fundamentals and Applications." The course, designed to provide in-depth knowledge of modern machine learning and deep learning techniques, was attended by participants from across the country. In addition to the ELITE certification, Dr. Kousalya also received certification for completing the Faculty Development Program (FDP) associated with the course.



Dr. C. Gnana Kousalya, Professor in the Department of Electronics and Communication Engineering, has achieved an Elite plus silver certification in the NPTEL examination conducted during the August-October 2024 session. The certification was awarded for successfully completing an 8-week course on Big Data Computing with distinction and also certified for FDP, showcasing her expertise in advanced technological concepts. This accomplishment reflects her commitment to staying updated with emerging technologies and contributing to quality education.

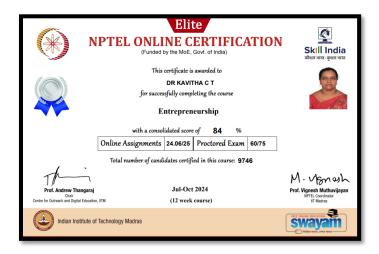


Dr. G.S. Uthayakumar, Associate Professor in the Department of Electronics and Communication Engineering, has achieved elite certification in the NPTEL courses *Public* 

*Speaking* and *Soft Skill Development*. Additionally, he successfully completed two other NPTEL courses, *Brand Management and Innovation* and *Business Models and Entrepreneurship*. These courses, conducted over 8-week and 12-week durations between August and October 2024, reflect his dedication to professional development. His accomplishments underscore a commitment to enhancing academic and entrepreneurial expertise.



Dr J Jeba Johannah, Associate Professor from Dept of ECE has achieved Elite plus Silver in the NPTEL Course on the title "Microelectronics: Devices to Circuits". She achieved She achieved an outstanding score of 82% in this 12-week program, earning an Elite Silver certification. This accomplishment reflects her dedication to advancing her knowledge in entrepreneurship and innovation. The course is part of the prestigious SWAYAM initiative funded by the Ministry of Education, Government of India. Her achievement highlights her commitment to professional growth and leadership skills.



Dr. C.T. Kavitha, Associate Professor from the Department of ECE, has successfully completed the NPTEL course titled "Entrepreneurship." She achieved an outstanding score of 84% in this 12-week program, earning an Elite Silver certification. This accomplishment reflects her dedication to advancing her knowledge in entrepreneurship and innovation. The course is part of the prestigious SWAYAM

initiative funded by the Ministry of Education, Government of India. Her achievement highlights her commitment to professional growth and leadership skills.



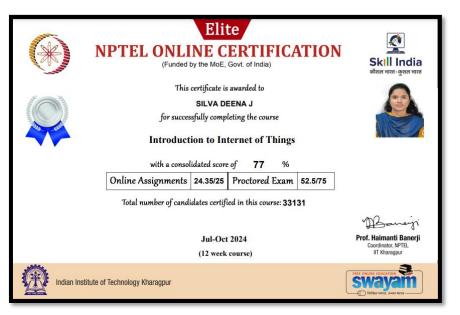
Mr. T. Siva, Assistant Professor from the Department of Electronics and Communication Engineering, has secured the Elite Plus Silver certificate in the NPTEL exam for the 12-week course on "Educational Leadership." In addition to this prestigious recognition, he also earned certification for completing a Faculty Development Program (FDP) focused on enhancing leadership skills in education.



Mr. Suresh D, Assistant Professor from the Department of Electronics and Communication Engineering, has successfully completed the NPTEL online certification course on **Digital Circuits**, conducted from July to October 2024. With a consolidated score of 61%, he earned the prestigious "Elite" recognition, showcasing his expertise in the subject. This accomplishment reflects his dedication to continuous learning and professional development in the field of electronics.

	Elite NE CERTIFICATION the MoE, Govt. of India)	
for succe Simulation of Comm	rtificate is awarded to J BINO iully completing the course nication Systems Using MATLAB lated score of 66 %	
Online Assignments	23.53/25 Proctored Exam 42/75	
Total number of cand	Ates certified in this course: 472 Jul-Oct 2024 (12 week course) 472 T.V.Buart Heat, Cente Sur Educational Technolo MPTE Contractional Technolog MPTE Contractional	
Indian Institute of Technology Guwahati		

Mr. J. Bino, Assistant Professor from ECE has successfully completed the NPTEL online certification course on "Simulation of Communication Systems Using MATLAB" during the Jul-Oct 2024 session. The 12-week course was conducted by IIT Guwahati under the SWAYAM initiative funded by the Ministry of Education, Government of India. He achieved an "Elite" certification with a consolidated score of 66% in the proctored exam This accomplishment highlights his proficiency in MATLAB-based simulation techniques for communication systems.



Mrs. Silva Deena J, Assistant Professor has successfully completed the NPTEL online certification course on "Introduction to Internet of Things" during the Jul-Oct 2024 session. She earned an "Elite Plus Silver" certification with an impressive consolidated score of 77%, in the proctored exam. The course was conducted by IIT Kharagpur under the SWAYAM initiative, funded by the Ministry of Education, Government of India. Her accomplishment demonstrates her expertise in IoT concepts and applications.



Mrs. Swetha S, Assistant Professor from the Department of ECE, has successfully completed the NPTEL course titled "Principles of Modern CDMA/MIMO/OFDM Wireless Communication." She achieved an Elite plus Silver certification, showcasing her expertise in advanced wireless communication technologies. This accomplishment highlights her commitment to staying updated with cutting-edge developments in her field. The course is part of the SWAYAM initiative, funded by the Ministry of Education, Government of India.

#### PATENT PUBLICATIONS

Dr. Jeba Johannah J, Associate professor from department of ECE has successfully published a patent titled "Smart Antenna for Improved Signal Coverage with Advanced Beamforming and Steering." The patent, with application number 202441091505, was filed on 24/11/2024 and published on 29/11/2024. This innovative technology focuses on enhancing signal coverage and network efficiency through advanced beamforming and steering techniques.

Dr. C.T. Kavitha, Associate professor from department of ECE has successfully published a patent titled **"Optimizing Nanoparticle Drug Delivery Systems for Cancer Treatment Using Machine Learning Algorithms."** The patent, with application number **202441087036**, was filed on **12/11/2024** and published on **15/11/2024**. This groundbreaking research focuses on enhancing cancer treatment efficiency by employing machine learning to optimize nanoparticle drug delivery systems.

Dr. C.T. Kavitha, Associate professor from department of ECE has successfully published a patent titled **"IoT and Machine Learning-Driven Platforms for Intelligent Environmental Pollution Monitoring and Management."** The patent, with application number **202421080563**, was filed on **23/10/2024** and published on **22/11/2024**. This groundbreaking work integrates IoT and machine learning technologies to create advanced systems for monitoring and managing environmental pollution effectively.

Dr. M. Senthil murugan, Associate Professor and Dr C. Mohan, Assistant Professor from the Department of Electronics and Communication Engineering, has successfully published a patent titled "An Efficient Wireless Power Transfer System with Metasurface for 5G Applications." The patent, with application number 202441091288, was filed on 23/11/2024 and published on 29/11/2024. This innovative system gives the efficient WPT system and performance improved metasurafce for future power conservation applications.

Dr. S. Tephillah, Associate Professor from the Department of Electronics and Communication Engineering, has successfully published a patent titled "Speech Stammer Detection System Using Spectral Features and Artificial Neural Networks." The patent, with application number 202441081304, was filed on 25/10/2024 and published on 01/11/2024. This innovative system leverages spectral features and artificial neural networks to detect speech stammering effectively, paving the way for advancements in speech therapy and communication technologies.

Mr. D. Suresh, assistant professor from the Department of ECE, has successfully published a patent titled **"IoT- and Machine-Learning-Driven Traffic Management Systems for Next-Generation Smart Cities."** The patent, with application number **202441087363**, was filed on **13/11/2024** and published on **22/11/2024**. This innovative technology focuses on the application of IoT and machine learning to develop efficient traffic management systems, enabling smarter and more sustainable urban mobility solutions.

Mrs. Silva Deena J, Assistant professor from department of ECE has successfully published a patent titled "IoT-Driven Soil Monitoring and Crop Management with Machine Learning for Fertilizer Recommendations." The patent, with application number 202421072652, was filed on 26/09/2024 and published on 08/11/2024. This innovative system combines IoT and machine learning to optimize soil monitoring and provide accurate fertilizer recommendations, enhancing agricultural productivity.

Mrs. Silva Deena J, Assistant professor from department of ECE has successfully published a patent titled **"Real-Time Environmental Monitoring and Air Quality Prediction Using IoT and Machine Learning in Smart Cities."** The patent, with application number **202441087571**, was filed on 13/11/2024 and published on 22/11/2024. This innovative system leverages IoT and machine learning to monitor environmental parameters and predict air quality, contributing to the development of sustainable smart cities.

Mr. A. Anist, an assistant professor from the Department of ECE, has successfully published a patent titled "**Predictive Modelling of Psychological Stress in Higher Education Teachers with Machine Learning.**" The patent, filed on **November 4, 2024**, carries the application number **202441084342.** It was officially published on **November 8, 2024.** This innovation highlights his contribution to leveraging machine learning for addressing psychological stress in academia.

#### FDP/WORKSHOP

Name	Designatio n	FDP/Workshop Name	Organizer Details	Mode of FDP Attende d	Date/Duration
Dr.P.G.V.Ramesh	Head and Professor	Basics of software defined radios and practical applications	NPTEL	online	4 Weeks
		Digital VLSI Testing	NPTEL	Online	12 Weeks
Dr C. Gnana Kousalya	Professor	Machine Learning and Deep Learning - Fundamentals and Application	NPTEL	Online	12 weeks
Dr C. Gnana Kousalya	Professor	Big Data Computing	NPTEL	Online	8 weeks
Dr G. Rohini	Professor	NPTEL FDP	NPTEL	Online	8weeks
Dr G. Rohini	Professor	NPTEL FDP	NPTEL	Online	12weeks
Dr Jeba Johannah J	Associate Professor	Big Data Analytics	St. Joseph's Institute of Technology, Chennai	Physical	22 .11.2024 to 23.11.2024
Dr Kavitha C. T	Associate Professor	Entrepreneurship	NPTEL SWAYAM	Online	12 weeks
Dr Tephillah S	Associate Professor	Nptel Internet Of Things	NPTEL	ONLINE	12 WEEKS
Mr A. Anist	Assistant Professor	The Revolution of Large Language Models (LLMs) in Artificial Intelligence	VIDYA JYOTHI INSTITUTE OF TECHNOLOGY	online	18.11.2023 to 23.11.2024
Mrs Swetha S	Assistant professor	Microsoft Power BI Data Analyst	ICT Academy FDP certificate of completion (MeitY)	Online	18.11.2024 to 22.11.2024
Mrs Silva Deena J	Assistant Professor	Introduction to IoT	NPTEL	Online	12Weeks

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