

JAIN INSTITUTE OF TECHNOLOGY, DAVANGERE



(A Unit of Jain Group of Institutions, Bangalore)
Affiliated to VTU, Belagavi | Approved by AICTE, New Delhi
Recognized by Government of Karnataka

Department of Electronics & Communication Engineering



Encore

2022-2023 Technical Magazine





"The greatest glory in living lies not in Never falling, but in Rising Every time we fall."

-Nelson Mandela

About the Department



Dr. Santosh Herur
HOD, Dept of ECE,
JIT, Davangere.

Department of Electronics and Communication was started in the year 2011-12. The department emphasizes on imparting advanced technical knowledge in various fields like signal processing, VLSI Technology, Embedded system, wireless technology, microwave engineering, optical communication, and microelectronics and control systems. Highly qualified, experienced and dedicated staff members are the backbone of the department. Well equipped, sophisticated, precision and state of the art laboratories are center of attraction in the campus. Another major strength of the department is its extensive collection of technical books, periodical and journals, ENCORE association of the department of E & CE aims at targeting innovations in the field of advanced communication and networking.

The Department has MOU with Karunadu Technologies Pvt. Ltd, Bengaluru, Abiyantrix, Soft Solutions, Davangere, Sai Tech, Mysore. The MOU organizations provide Internship training and conduct workshops on recent trends and organize seminars for the students to enhance their industrial exposure.

Editor's desk



Mrs. ANUSHA K
Assistant Professor
Dept. of ECE,
JIT, Davangere



Mr. SUNIL M Assistant Professor Dept. of ECE, JIT, Davangere

Warm greetings to the readers of Encore!!

We are pleased to share with you the Technical Magazine for the Academic year 2022-23. We express our considerable gratitude and appreciation to everyone who have contributed to this Newsletter magazine. These contributions have required a generous amount of time and effort. It is this willingness to share knowledge, concerns and special insights with fellow beings that has made this magazine possible.

Finally, we would like to conclude with these words "Learn from yesterday, live for today, hope for tomorrow. the important thing is not to stop questioning."- Albert Einstein Embrace each challenge in your life as an opportunity for self-transformation.

Happy reading

Thank you ANUSHA .K SUNIL .M

Vision of the Department

Endeavours to achieve academic excellence by providing value based education to meet the ever changing needs of the society.

Mission of the Department

- ❖ To emphasize on student focus learning environment.
- To prepare graduates who surpass in the engineering career, qualified to acquire technical knowledge and ethical values.
- * To provide a platform to inculcate team spirit and leadership qualities to succeed in professional Career.

Program Specific Outcomes (PSOs)

- PSO1: Analyze, simulate and design electronic and communication circuits for given specifications.
- * PSO2: Design and test processor based systems

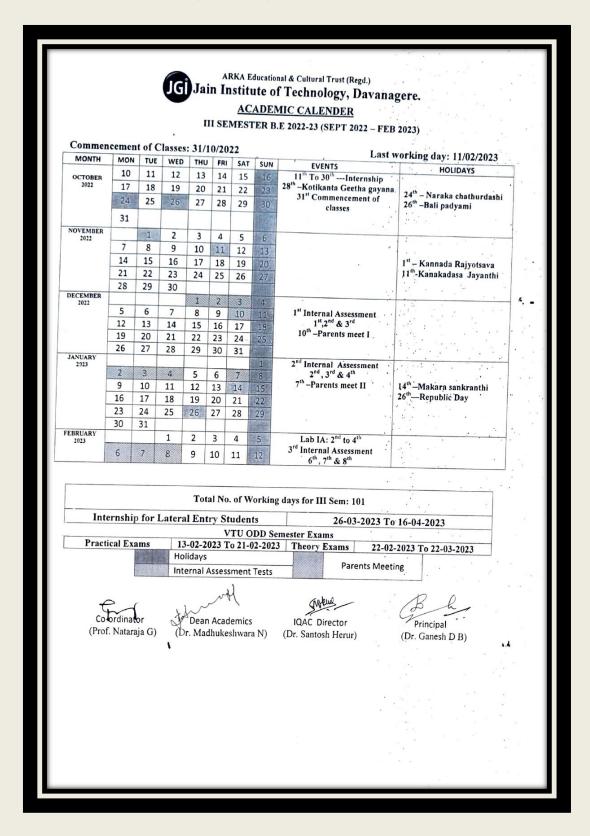
Program Educational Objectives (PEOs)

- ❖ PEO1: To create graduates with a strong base in Electronics & Communication Engineering.
- ❖ PEO2: To produce technically competent graduates with the ability to understand, analyze ∠ develop electronic systems.
- PEO3: Ability to work with professional ethics and as a team member to realize the goals of the projects.
- ❖ PEO4: Excellence in professional career by attaining higher education.

ODD SEMESTER

						AC	ADEMI	IC CALENDEI	4	· ·		
				V S	VII	SEME	STER B	3.E 2022-23 (SEF	T 2022 - FEB 2023)			
Commen Commen								Last working day: 27/01/2023 Last working day: 31/12/2022				
MONTH	MON	TUE	WED	mu	FRI	SAT	SUN	EVENTS V Sem	EVENTS VII Sem	HOLIDAYS		
EPTEMBER 2022	19	20	21	22	23	24	25	22 nd -Talent show	19th Commencement of			
2022	26	27	28	29	30	1	2 2	10 th	ciasses			
OCTOBER	3	4	5	6	7	8	9	Commencement of classes	1" Internal Assessment	4 th -Ayudha pooja 5 th -Vijaya Dashami 24 th - Naraka Chaturdasi 26 th -Bali padyami		
2022	10	11	12	13	14	15	16		20th,21" & 22nd			
	24	18	19	20	21	22	23					
	31		20	21	20	27	230 T					
NOVEMBER 2022		8	2	3	4	5	6 1	1" Internal		l ⁱⁱ - Kannada Rajyotsava Il ^{ib} -Kanakadasa Jayanthi		
	7	15	9	10	11	12	13	Assessment 17th.18th & 19th	5th – Parents meet I 2th Internal Assessment			
	21	27	23	24	25	26	27	26 th -Parents meet	21 st ,22 ^{ad} & 23 rd			
DECEMBER	28	29	30	1	2	3	4	2 nd Internal	10 th -Parents meet II			
2022	5	6	7	8	9	10	fit	Assessment 19th, 20th & 21st	Lab IA: 22 nd to 24 th 3 rd Internal Assessment			
	19	20	21	22	23	24	18	31" -Parents meet	26th , 27th & 28th			
JANUARY	26	27	28	29	30	31	112	Lab IA: 19th to 21th				
2023	2	3	4	5	6	7	8	3 rd Internal Assessment		14 th –Makara sankranthi 26 th —Republic Day		
	9	10	11	12	20	21	15	23rd , 24th & 25th		in public bay		
	23	24	25	26	27		3 - 123					
								ting days for V S ing days for VII				
		Int	ternshi	p for \	/II Se	0.55	THO DD	C	21-08-2022 To 17-09	-2022		
	Practi	cal Exa	ins for	V Sem		30-0	01-2023 T			To 18-03-2023		
			ns for V			03-0	0-02-2023 01-2023 T	O Theory Even		200 200 200 100000		
	- racine	T. DAM	LIM.			13	3-01-2023	Theory Exam	16-01-2023	To 15-02-2023		
Holidays Internal Assessment Tests Parents Meeting												

ODD SEMESTER



ODD SEMESTER

ARKA Educational & Cultural Trust (Regd.)

Jain Institute of Technology, Davanagere.

(A Unit of Jain Group of Institutions, Bangalore)

Department of Electronics & Communication Engineering

DEPARTMENT CALENDER

V & VII SEMESTER B.E 2022-23 (SEPT 2022 - FEB 2023)

Commencement of Classes V: 10/10/2022 Last working day: 27/01/2023
Commencement of Classes VII: 19/09/2022 Last working day: 31/12/2022

Commen	cemen	t of C	lasses	VII: 1	9/09/7	2022			Last working	day. Sirieravaa	
MONTH	MON	TUE	WED	THE	FRI	SAT	SUN	EVENTS V Sem	EVENTS VII Sem	HOLIDAYS	
- manufacture	19	20	21	22	23	24	25	22 rd -Talent show	19th Commencement of		
SEPTEMBER 2022	26	27	28	29	30	-	-		classes		
	-	-				1	2	10 th Commencement of		4 th -Ayudha pooja 5 th -Vijaya Dashami 24 th - Naraka Chaturdash 26 th -Bali padyami	
OCTOBER	3	4	5	6	7	8	9	classes	1" Internal Assessment 20th 21th & 22th		
2622	10	11	12	13	14	15	16		20-,21- & 22-		
	17	18	19	20	21	22	23		2nd week - Forum		
	24	25	26	27	28	29	30		activity Freshers Day		
	31						Regis				
NOVEMBER		1	2	3	4	5	6	DE TANDON IN	985070 70 8000		
2022	7 8	8	9	10	-11	12	13	1" Internal Assessment 17",18" & 19" 26" -Parents meet	5th -Parents meet 1		
14	14	15	16	17	18	19	20		2nd Internal Assessment 21",22nd & 23rd	1" - Kannada Rajyotsava	
	21	22	23	24	25	26	27		2 nd week - Forum activity	11th-Kanakadasa Jayanti	
	28	29	30					I" week - Forum			
DECEMBER				1	2	3	4	2 nd Internal	10th -Parents meet II	1	
2022	5	6	7	8	9	10	11	Assessment 19th, 20th & 21th	Lab IA: 22 nd to 24 th 3 rd Internal Assessment		
	12	13	14	15	16	17	18	31" -Parents meet	26ª , 27ª & 28ª		
	19	20	21	22	23	24	25	ii .	2nd week - Forum		
	26	27	28	29	30	31	Mr.	I" week - Forum activity	activity		
JANUARY							1	Lab IA: 19th to 21st			
2023	2	3	4	5	6	7	8	3rd Internal Assessment		14th -Makara sankranthi 26th-Republic Day	
	9	10	11	12	13	14	15	23/4, 24th & 25th		20 -Kipublic Day	
	16	17	18	19	20	21	22				
	23	24	25	26	27	10000	100				

		days for V Sem: 96 days for VII Sem: 8	
Internship for VII S	em	21-0	8-2022 To 17-09-2022
	VTU ODD Se	mester Exams	
Practical Exams for V Sem	30-01-2023 To 09-02-2023	Theory Exams	13-02-2023 To 18-03-2023
Practical Exams for VII Sem	63-01-2023 To 13-01-2023	Theory Exams	16-01-2023 To 15-02-2023

Holidays Internal Assessment Tests

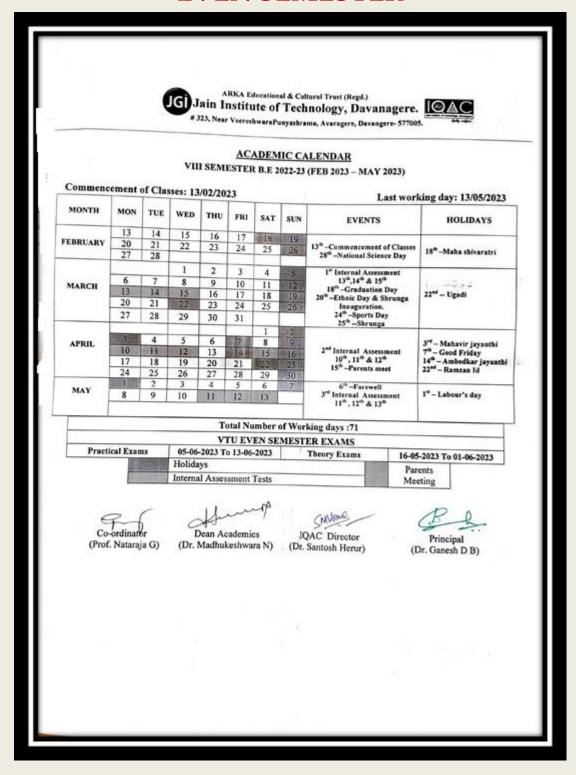
Parents Meeting

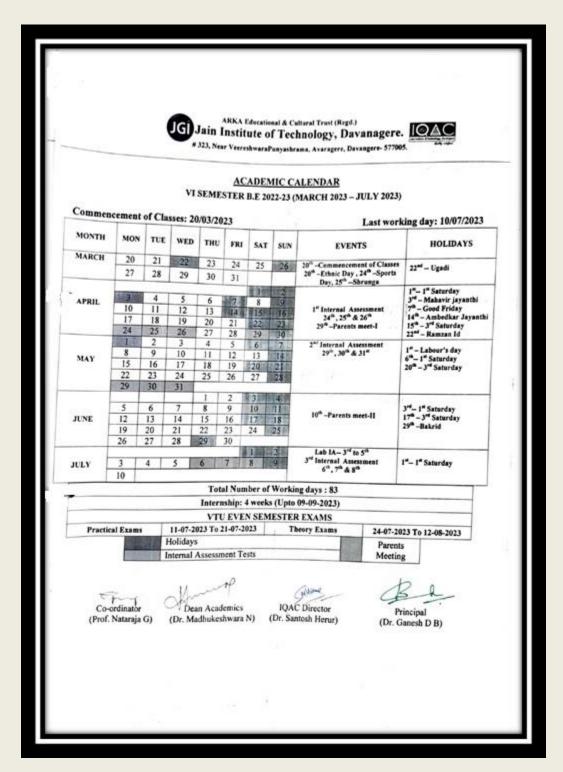
Academic Co-ordinator (Prof. Savita Mamadapur) IQAC Director (Dr. Santosh Herur)

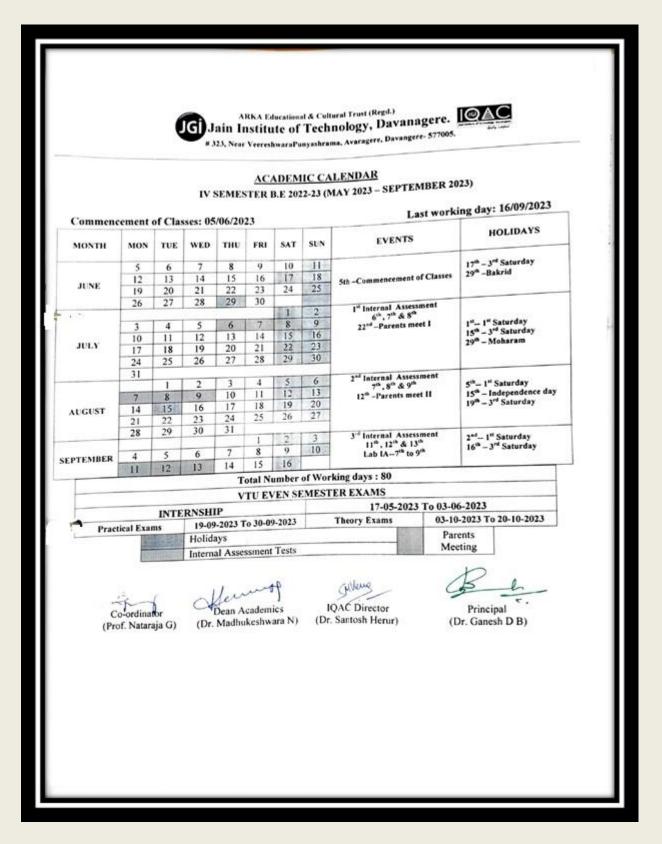
(Dr. Ganesh D B)

ODD SEMESTER

						DEL	'ART	MENT CALE	NDER	
				1	III SE			B.E 2022-23 (SE		3 2023)
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HTMO	MON	TUE	WED	THU	FRI	SAT	SUN	EVENTS	Last	working day: 11/02/2023 HOUDAYS
OCTOBER 2022	10	11	12	13	14	15	16	11th To 30th -	Internship	HOUDATS
	17	18	19	20	21	22	23	28th Kotikanta Geetha gayana 31th Commencement of classes		44 - Naraka chathurdashi
	24	25	26	27	28	29	30			26th -Bali padyami
	31						132			
2022		1	2	3	4	5	6	000000000	39 Au	
	7	8	9	10	11	12	13	1st or 2st we activ		
	21	22	16	17	18	19	20	Freshe		1" - Kannada Rajyotsava 11 ^a -Kanakadasa Jayanthi
	28	29	30	24	25	26	27	1570101	10.47.56	
EMBER 3023				1	2	3	4			
355	5	6	7	8	9	10	11	1" Internal	Assessment	
	12	13	14	15	16	17	18	1 st ,2 ^{sd} 10 th -Pares	& 3rd ats meet 1	
	19	20	21	22	23	24	25	2nd or 3rd we	eck - Forum	
	26	27	28	29	30	31	188	activ	vity	
NUARY 2023							1	2 nd Internal	Assessment	
	2	3	4	5	6	7	8	2 nd , 3 rd 7 ^{rs} -Parent	& 4th	PROPERTY CONTROL OF THE PROPERTY.
	9	10	11	12	13	14	15	2 nd or 3 rd we	s meet II ek - Forum	14th -Makara sankranthi 26th Republic Day
	23	24	25	19	20	21	22	activity		,
	30	31		60	2.1	40	23			
RUARY 2023			1	2	3	4	5	Lab IA: 2	2 nd to 4 th	
	6	7	8	9	10	11	12	3" Internal 6" , 7"	Assessment	
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_	2000							orking days for	ALCOHOLD STATE	
	Intern	ship i	or La	teral	Entr				26-03-202	23 To 16-04-2023
p.	ractical	Fran		12.4	2.20	12.T	TU C	ODD Semester E:		
-	acucal	E-XH	100	Holic		LJ 10	41-02	-2023 Theory	z.xams	22-02-2023 To 22-03-2023
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	-	-	o andi	nator			1/	QAC Director		Principal
	Acade	emae C						SAC DIRECTOR		Principal
	Acade (Prof. S							r. Santosh Herur)		(Dr. Ganesh D B)







EVEN SEMESTER



323, Near VeereshwaraPunyashrama, Avaragere, Davangere- 577005.

DEPARTMENT ACADEMIC CALENDAR

VIII SEMESTER B.E 2022-23 (FEB 2023 - MAY 2023)

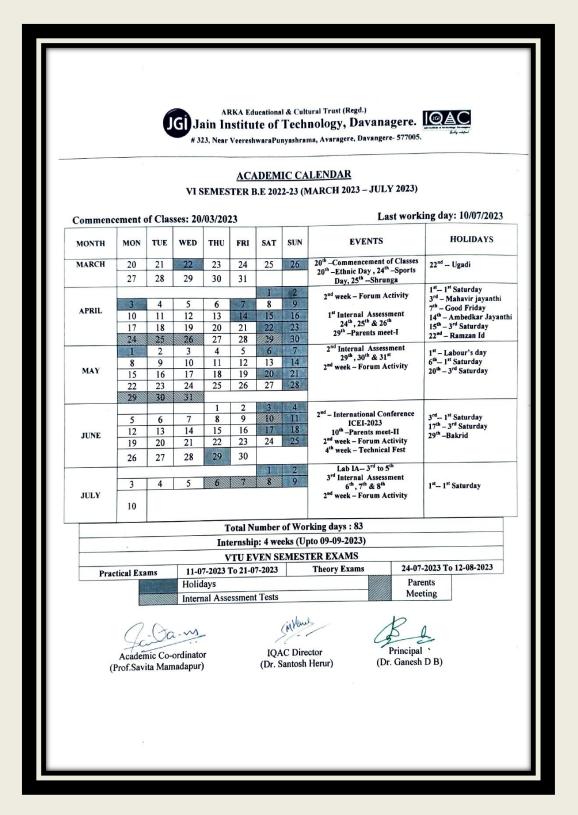
Commencement of Classes: 13/02/2023 Last working day: 13/05/2023

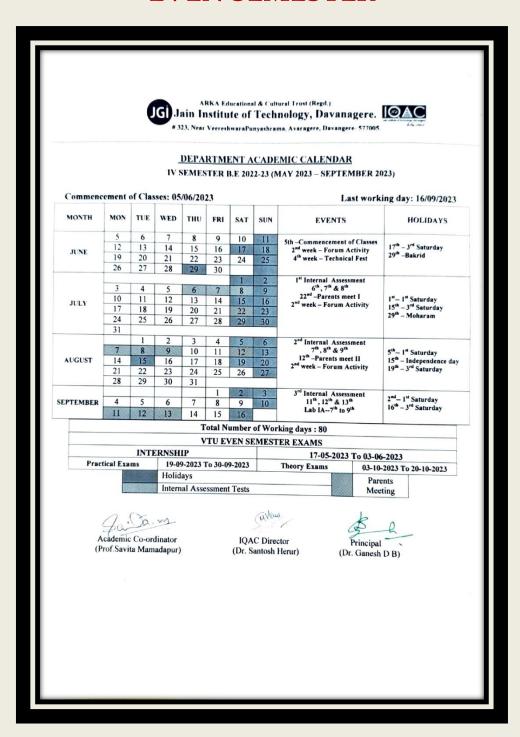
MONTH	MON	TUE	WED	THU	FRI	SAT	SUN	EVENTS	HOLIDAYS		
	13	14	15	16	17	18	19	13th -Commencement of Classes			
	20	21	22	23	24	25	26	28th –National Science Day	18th-Maha shivaratri		
	27	28						Last week – Forum Activity Placement Activity			
			1	2	3	4	5	First week - Industry visit			
MARCH 20	6	7	8	9	10	11	12	1st Internal Assessment - 13th,14th & 15th	22 nd Ugadi		
	13	14	15	16	17	18	19	2 nd Week - Forum Activity			
	20	21	22	23	24	25	26	Third week - Internship Seminar 18th - Graduation Day			
	27	28	29	30	31			10° - Graduation Day 20th - Ethnic Day & Shrunga Inauguration. 24th - Sports Day 25th - Shrunga Last week - Technical Seminar			
						1	2	First week - Project phase-2	3 rd – Mahavir jayanth		
APRIL	3	4	5	6	7	8	9	seminar 2nd Internal Assessment	7th - Good Friday		
	10	11	12	13	14	15	16	10th, 11th & 12th	14th – Ambedkar		
	17	18	19	20	21	22	23	15th -Parents meet	Jayanthi 22 nd – Ramzan Id		
	24	25	26	27	28	29	30	Last week - Project phase-3	- Kanizan iu		
MAY	301	2	3	4	5	6	7	6th –Farewell 1st Week – Photo Session	III I - L L D		
MAY	8	9	10	11	12	13		3rd Internal Assessment	1st – Labour's Day		

	Total Number of	Working days :71						
	VTU EVEN SEM	ESTER EXAMS						
Practical Exams	05-06-2023 To 13-06-2023	05-06-2023 To 13-06-2023 Theory Exams						
44	Holidays		Parents					
	Internal Assessment Tests		Meeting					

(Prof. Savita Mamadapur)

IQAC Director (Dr. Santosh Herur)





TECH TALK

Deduction of Harmonics in Power Quality Improvement

Introduction:

In the realm of electrical engineering, power quality is a pivotal aspect that impacts both the performance and longevity of electrical systems. An essential component of power quality management is the reduction of harmonics, which are distortions in voltage and current waveforms from their standard sinusoidal shape. This report discusses the significance of harmonics deduction, the challenges posed by these distortions, and the techniques employed to mitigate their effects on electrical networks.

Keywords: Harmonics, Power Quality, Harmonic Filter, Total Harmonic Distortion

The Significance of Harmonics in Power Systems

Harmonics in power systems are primarily generated by non-linear loads such as variable frequency drives, computers, fluorescent lighting, and other electronic devices. These harmonics can cause a variety of issues including overheating of transformers, interference in communication lines, increased losses in power systems, and malfunctioning of sensitive equipment. The deduction of these harmonics is therefore crucial for improving the reliability and efficiency of power systems.

Impact of Harmonics on Power Quality

The presence of harmonics in power systems leads to poor power quality, which can manifest in several ways:

Increased Operational Costs: Equipment inefficiencies and higher energy consumption due to harmonics lead to increased operational costs.

Equipment Damage: Prolonged exposure to high levels of harmonics can cause physical damage to power transformers and capacitors, which often leads to costly repairs and downtime.

Techniques for Harmonics Reduction

To address the challenges posed by harmonics, several techniques have been developed:

1. Harmonic Filtering

Passive Filters: These are tuned to specific harmonic frequencies and are used to reduce the amplitude of those frequencies through resonance absorption.

Active Filters: Active filters dynamically adjust to varying harmonic levels and provide compensation by generating inverse harmonics to effectively neutralize the unwanted frequencies.

2. Use of PWM Inverters

PWM (Pulse Width Modulation) inverters help in controlling the output voltage and current precisely, thereby reducing the generation of harmonics at the source itself.

3. Phase Shifting Transformers

These transformers are used to cancel out certain harmonic orders by shifting the phase of the harmonics, thus improving the overall power quality.

Challenges in Harmonic Reduction

While technology exists to mitigate harmonics, several challenges remain:

Cost: High initial investment in harmonic filtering equipment and technology can be a deterrent for small to medium enterprises.

Maintenance: Ongoing maintenance and monitoring of harmonic filtering systems are required to ensure they operate effectively and efficiently.

Technological Integration: Integrating new technologies with existing systems can be complex and requires skilled professionals.

Conclusion

The deduction of harmonics is a critical factor in enhancing power quality in modern electrical networks. Through a combination of advanced technology and strategic system design, significant improvements in power quality can be achieved. The implementation of effective harmonic mitigation techniques not only extends the lifespan of electrical components but also ensures compliance with international power quality standards, thereby safeguarding sensitive equipment and reducing operational costs. As technology evolves, ongoing research and development in the area of harmonics deduction will continue to play a vital role in addressing the dynamic challenges posed by power quality issues.

By focusing on strategies such as harmonic filtering, system design improvements, and the use of advanced equipment, industries can ensure a stable, efficient, and reliable power supply. This not only enhances operational efficiency but also contributes to sustainable energy practices across the globe.

FACULTY PROJECT PROPOSAL SUBMITTED FOR KSCST-FPP 2022-23.

Department of Electronics and Communication Engineering have successfully submitted **Two Project Proposals** for the KSCST Faculty Project Programme(FPP) under Science, Tachnology and Innovation(STI) Interventions in the state. The details are as follows:

1. Project Proposal titled "DESIGN AND IMPLEMENTATION OF SMART WEARABLE DEVICES FOR HEALTH CARE" was submitted.

Principal Investigator: Mr. Ravikumar K. I, Assistant Professor, Dept. of ECE

<u>Co-Investigator-1</u>: **Mr. Ravi Rayappa**, Assistant Professor, Dept. of ECE

<u>Co-Investigator-2</u>: **Ms. Anusha K**, Assistant Professor, Dept. of ECE

2 Project Proposal titled "IMPLEMENTATION OF FACIAL ANALYSIS OF THE PERSON AND MOOD DETECTION FOR LAW ENFORCEMENT AND SOCIAL WELLBEING USING MACHINE LEARNING TECHNIQUES" was submitted.

<u>Principal Investigator</u>: **Dr. Santosh Herur**, HOD, Dept. of ECE

Co-Investigator-1: Mr. Sharanabasaveshwara H B, Assistant Professor, Dept. of ECE

<u>Co-Investigator-2</u>: **Dr. Santosh M. Nejakar**, HOD, Dept. of EEE.



Happiness often sneaks in through a door you

Didn't know you left open.

Sír Mokshagundam Vísvesvaraya

Faculty Participation at ATAL FDP



Image of ATAL FDP on Intelligent Schemes for Cyber Security.

A Two weeks **ATAL FDP on Intelligent Schemes for Cyber Security** has been organized by Dept. of Computer Science & Engineering, University B D T College of Engineering, Davangere from 05-09-2022 to 10-09-2022 in Online mode and from 12-09-2022 to 16-09-2022 in offline mode. **Mr. Ravikumar K I and Mrs. Savitra Totad**, Assistant Professor, Dept. of ECE has successfully attended the FDP.

INTRA INSTITUTE INTERNSHIP PROGRAM













Images of Intra Institute Internship Program.

A Sessions on Document and Poster Preparation, MS Excel, ICT and Computer and its parts, Google forms creation & MOOCs & its applications, Basics of VLSI Design, was conducted in the Department of Electronics and Communication Engineering for the 2nd year students as a part of their Internship training. Mrs. Pushpalatha O, Assistant Professor, Mr. Ravikumar K I, Assistant Professor, Mr. Sharanabasaveshwara H B, Assistant professor, Dr.

Mahantesh Mattada, Associate professor, Dept. of ECE were the Resource Persons for the Sessions.

A Session on Fundamentals of C Programming, Basics of Embedded Systems, Introdcution to Arduino and Its Programming, Hardware Circuit Interfacing using Arduino Programming, Hardware Interfacing with Arduino and Mini Projects was conducted by Abeyantrix Softlab (OPC) Pvt. Ltd. Davanagere, in the Department of Electronics and Communication Engineering for the 2nd year students as a part of their intersnhip training. Mr. Shivaraj V. S Product Application manager, Mr. Mantesh Shirur Senior Embbedded engineers, Ms. Shrilakshmi S. R Software Trainee Associate were the Resource Person for the Session. They enumarated on the features and uses of C programming. LED Interface, Multiple LED interfacing, Buzzer Interface, Switch with Buzzer and LED interface, LCD, IR Sensor, Fire Sesnor. Relay Interfacing, Motor Interfacing using Arduino, Mini Projects on line follower Robot and Smart light using LDR. A total of 50 students attended the session. This was followed by a practical session conducted by Resource Persons Abeyantrix Softlab OPC Pvt. Ltd., Davangere.









Images of Intra Institute Internship Program.

INDUSTRIAL VISIT









Images of Industrial Visit

The Department of E & C E students and faculty members Prof. Pushpalatha.O, Prof. Ravikumar K. I, and Prof. Sharanabasaveshwara H B visited Abeyantrix Softlab (OPC) Pvt. Ltd. Davangere. The industrial visit is a part of the second-year students internship training. The session's resource persons were Ms. Kavya N. C. and Ms. Shrilakshmi S. R. software trainee associate. They presented information about the Abeyantrix Softlab Company, Service Specifications, Emerging Technologies, the Industry Work Environment and Employment Prospects associated to E & C E. 57 students in all were present for the visit.

Campus Placement



The final year student of ECE Department, **Ms. Trupthi G G** has been recruited for the company **Mu Sigma** with a package of **5LPA**. Hearty congratulations and best wishes from College Management, Principal, Placement officer, HOD, Placement Coordinator, Teaching and Non-teachning staff members.

Faculty Participation



Mr. Sharanabasaveshwara H B, Assistant Professor, Dept. of ECE, Jain Institute of Technology has participated and obtained the udemy (MOOCs - Massive Open Online Courses) certification in "JAVA TUTORIAL FOR COMPLETE BEGINNERS".

A Social Initiative by forum ENCORE









Images of Social Initiative

The final year students of the department of ECE and Forum ENCORE took social initiative to distribute daily use kits to the differently abled students at Veereshwara Punyashrama. **Dr.Ganesh D B**, Principal & Director, JIT, Davangere, **Dr. Santosh Herur**, HOD, Dept. of ECE and all the final year students and faculty members of ECE were joined hands for this social activity.

FORUM ACTIVITY: CIRCUIT MANIA









Images of Circuit Mania.

The ECE Forum **ENCORE** initiative **Circuit Mania** was conducted on 3rd November 2022 in association with ISTE, JIT, Davangere for 5th Semester students. **Prof.Sharanabasaveshwara H B** ,Forum Coordinator, Dept. of ECE conducted the event. There were a total of 54 participants, divided into 9 teams and each team was assigned with 5 mini-projects, namely: Touch Sensor, Automatic night light, Water level indicator, Darkness sensor and LED Blinker. All the students actively participated in the event. **Dr. Ganesh D B**, Principal & Director, JIT, Davangere and **Dr. Santosh Herur**, HOD, Dept. of ECE evaluated the mini projects and appreciated their enthusiasm to learn new things.

Listen To a Story





Images of Listen to a story

Forum activity on Listen to a story in 10 minutes on "Lazy Portado" by Mrs. Sudhamurthy and Analyitical Fun Game Ludo King was conducted for the III semester students of ECE Department by Mr. Sharanabasaveshwara H B, Forum Coordinator. A total of 40 students participated in the event. There were a group of 4 students each and 10 groups were formed. The groups received I, II and III places. Below are the few images of the event.

Faculty Achievement



Mr. Ravikumar K I, Assistant Professor, Dept. of ECE has successfully published a Research Paper titled" **Memristor based object detection using neural network"** in **ELSEVIER** Journal on 23rd November 2022.

Activity on Plantation & Adoption of a Tree (21UH36)





Images of Plantation & Adoption of a Tree

JIT, Organized Activity on Plantation and Adoption of a Tree to the 2nd Year Students of JIT as per VTU curriculum on 26/11/2022.**Dr. Santosh Herur**, Associate Professor & Head of E&C Department Enlightened the students regarding Social connect and Responsibility Subject as per VTU Syllabus.

Chief guest Mr. DarshanNaik L R, Range Forest Officer, Davangere Social Forestry Range, delivered a speech and Presentation on Different species of Trees and its advantages on Society and Health.Dr. Ganesh D B, Principal and Director of Jain Institute of Technology, davangere ,Adressed the students with his precedential speech.NSS Program officer Veeresh Kumar K S, Program Organisers Sharan H B , Rajeshwari H M , E&C Department, Heads of all Departments, Faculties and Students were present in the Program.

FACULTY PARTICIPATION



Mrs. Savitra C T and Mrs. Savita Mamadapur, Assistant Professor, Dept. of attended Two week AICTE ATAL ECE Online & Offline FDP on "Computational Intelligence **Enabled Sensors** and **Networks** for 5G/6G Wireless Communication" At JNNCE, Shivmogga from 14th to 25th November.

FACULTY PARTICIPATION



Mr. Sharanabasaveshwara H B, Assistant Professor, Dept. of ECE has participated and successfully completed 5 days FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education (AICTE) from 7th to 11th November 2022.

Interactive Session For First Year Students



Images of Interactive Session for first year students

An Interactive Session for first year students was arranged in the Department of ECE. **Dr. Santosh Herur**, HOD, Dept. of ECE addressed the students and gave insight into the department through his presentation. After the session students visited labs and got overview about the department.

Forum Inauguration and Fresher's Day







Images of Forum Inauguration and Fresher's Day





Images of Forum Inauguration and Fresher's Day.

Inauguration of forum Encore was organized on 15th December 2022. The Chief Guest was Ms. Pooja Boosnur, Optimization Engineer in Production at Intel Corporation. She spoke about the challenges she faced as a fresher and how she managed to reach such a top position. President of the event was Dr. Ganesh D B, Principal & Director, JITD spoke on the occasion and urged the students to take part in forum activities. Chairman of the event, Dr. Santosh Herur, HOD, Dept. of ECE spoke about the event and assisted the students to how to cope with the NEP syllabus. Forum Coordinator Mr. Sharanabasaveshwara H B, Dept. of ECE, read the list of forum activities conducted since the start of odd semester. All the HOD's of various department, all the faculties, non-teaching staff and students of Department of ECE were present.

TECHNICAL TALK





Images of Technical Talk.

Department of Mechanical Engineering in collaboration with Department of Electronics and Communication Engineering organised an forum event Technical talk on Outcome Based Education in advanced Robotics Automation and Emerging technologies.Resource person Mr.Sudhir Sanna gave a talk on the particular domain. Head of the ME department, Dr.Rajaneeh N Marigoudar and Head of ECE department, Dr. Santosh Herur were present in the event.

Talk on Clicks Campus App Registration





Images of Clicks Campus App Registration

Placement Officer Mr. Prakash C H and Dr. Prakash M Walvekar addressed the final year students of ECE Dept. and gave information about the Clicks App and its benefits in Campus placement preparation. Dr. Santosh Herur, HOD, Dept. of ECE and Prof. Deepthi G B, Placement Coordinator, Dept. of ECE were also present and guided the students.

Placement Activity



Images of Placement Activity

Online Aptitude test was conducted for the final year students by Career Prime recruitment solutions, Banglore in association with Placement and Training cell of JIT.

Campus Placement



TRUPTHI 4JD19EC048



KIRAN KUMAR K M 4JD19EC036



SAHIL KHAN S J 4JD19EC053

The Final year students of ECE Department, **Ms. Trupthi G G, Mr. Kiran Kumar K M, Mr.Sahil khan S J** has been recruited for the **TCS** company with a package of **3.36 LPA**. Hearty congratulations and best wishes from College Management, Principal, Placement officer, HOD, Placement Coordinator, Teaching and Non-teachning staff members.

NBA Awareness Session









Images of NBA Awareness Program

A session on NBA Awareness was organized at JIT Auditorium for the students of ECE Department . **Mr. Ravikumar K I**, NBA Coordinator, Dept. of ECE addressed the students and educated them about Vision and Mission of Department and Institute, PO's, PSO's and PEO's. **Dr. Santosh Herur**, HOD, Dept. of ECE carried out the session and gave knowledge about NBA Process and its benefits to students and the department. He directed the students about their roles and responsibilties during the NBA visit which is scheduled on 6th, 7th and 8th of January 2023. He also highlighted on Outcome Based Education and process followed for NBA and its Importance. A total of 162 Students from 3rd, 5th and 7th semester ,Teaching and Non teaching staff members were present during the session.

Intel India Stem Skills Program for Women





Images of Intel India Stem Skills Program For Women.

All the girl students of circuit branches (CSE,ISE,ECE,EEE) attended an event on INTEL INDIA STEM SKILLS PROGRAM FOR WOMEN by Mr. Sachin Patil and his team on 19th January 2023. Mr. Sachin Patil, Learning Link Foundation, helped students to register to the LMS from INTEL. Mr. Ganyaneshwar thought students about the basics of VLSI and informed the students the importance of VLSI and companies related to this stream. Ms. Poornima thought students about the soft skills and steps, methods to set goals. She also instructed students about time management.

Dr. Ganesh D B, Principal, JITD informed students to use this kind of platforms and have active participation in hackathons. Dr. Santosh Herur, HOD, ECE, Dr. Prakash Walvalakar, TPO, Mr. Sharanabasaveshwara, Assistant Professor, ECE and Placement coordinators of various department were present during the event.

Skill Development Program on "Gateway to Cyber Security













Images of Skill Development Program on "Gateway to Cyber Security".

Skill Development Program on "Gateway to Cyber Security" was organized by the Department of Electronics and Communication at JITD Auditorium. The alumni of JIT, Mr. Pavan Kumar H B, Security Analyst, McKinsey and Company, Banglore, Ms. Pooja S M,IT Internal Audit, Google, Mr. Shridhar G H, Associate Consultant, KPMG Global Services Pvt. Ltd, Banglore were invited as the Resource persons for the Program. Dr. Ganesh D B, Principal & Director addressed the gathering and encouraged the students to upskill their technical knowledge.

Dr. Santosh Herur, HOD, Department of ECE spoke about the basic knowledge required to start career in Cyber Security and its various domains. **Prof. Ravikumar K I, Prof. Anusha K**, Program Coordinators, Dept. of ECE were also present during the program. The Resource Persons conducted various Sessions and highlighted on the concepts of Cyber Security and its industrial exposure and career opportunities. Certificates were presented to all the participants. A total of 120 students from 3rd,5th and 7th semester of ECE attended the SDP. All the teaching and Non teaching staff members of the department were present during the Skill Development Program.

MoU signed with PSN Hub IT Consultancy Services



Image of MOU Signing Between JIT With PSN Hub.

A MoU signed between Department of Electronics & Communication Engineering, JITD and PSN Hub IT Consultancy services on 14th February 2023 with a view to provide job oriented courses, skill development training, webinars and industry exposure to students in the field of Cyber Security.

Campus Placement



Image of Ethnus company recruitment.

The Final year students of ECE Department, Ms. Anusha D J, Ms. Chandana G P, Ms. Harshitha J B, Ms. Ayesha siddique, Ms. Pooja K K, Ms. Sunidhi, Ms. Asfiya have been recruited for the company Ethnus. Hearty congratulations and best wishes from College Management, Principal, Placement officer, HOD, Placement Coordinator, Teaching and Nonteachning staff members.

Student's Achievement



Students presented an idea at state level innovation competition, IDEATHON-2023.

The 8th semester students of ECE Department Ms. Vimarsha S P, Ms. Sahana P K and Ms. Pooja K.K has presented an idea at state level innovation competition, IDEATHON-2023 on 14th March 2023 held at Channabasaveshwara Institute of Technology, Gubbi, Tumakuru

under the guidance of Mr. Ravi rayappa, Assistant Professor, Dept. of ECE. Their idea scored one among the top 3 ideas in the IDEATHON-2023 competition. Dr. Ganesh D B, Principal and director, JITD, Dr. Santosh Herur, HOD, Dept. of ECE and all faculties of the department appreciated and congratulated the students for their achievement.

Campus Placement

The Final year students of ECE Department have been recruited for the Deloitte, Palle and Kaynes companies with an attactrive packages. Hearty congratulations and best wishes to all the campus recruited students from College Management, Principal, Placement officer, HOD, Placement Coordinator, Teaching and Non-teachning staff members. The details are given below.

1. Kaynes Technologies

Chandana G P, Sahil Khan S J, Sunidhi K R, Kavya Jain A, Saheer Baig, Anusha D J, Bakkesh V of 8th sem ECE have been recruited for Kaynes Technologies as Trainee Engineer with an attractive package.









Chandana G P

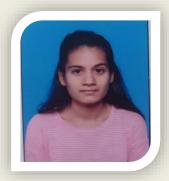
Sahil Khan S J

Sunidhi K R

Kavya Jain A







Anusha D J



Bakkesh V

2. Palle Technologies

Arpitha K R and Bakkesh V of 8th sem ECE have been recruited for Palle Technologies as a Trainee with an attractive package of **3LPA**.





Bakkesh V

Arpitha K R

3. Deloitte

Arpitha K R of 8th sem ECE have been recruited for Deloitte company as Analyst Trainee with an attractive package of **4.5 LPA**.



Arpitha K R

Project Proposals Approved for 46th series KSCST Sponsorship

In the 46th series of **KSCST** Student Project Programme (SPP): 2022-23, **Two proposals** from the department of E&CE has been selected and sponsored.



Project-1:

The project proposal titled "VOICE ASSISTEDTEXT READINGSYSTEM FOR BLIND AND VISUALLY IMPAIRED PERSONS" was submitted by the students: Bhoomika G R, Arpitha K R,Shubhashini K H and Syeda shaista Zainab P under the guidance of Dr.Santosh Herur, HOD, Department of E&CE. An amount of Rs. 6,500/- is sanctioned.

Team Members::









Bhoomika G R

Arpitha K R

Shubhashini K H

Syeda shaista Zainab



Project--II

The project proposal titled "MACHINE LEARNING BASED TRAFFIC MANAGEMENT" was submitted by the students: Sahana Poorvachari Kammara, Meghana S, Pooja K K and Vimarsha S P under the guidance of Mr.Ravirayappa, Assistant Professor, Department of E&CE. An amount of Rs. 5,000/- is sanctioned.

Team Members::









Sahana P K

Meghana S

Pooja K K

Vimarsha S P

Project Exhibition: P-EXPO-2023

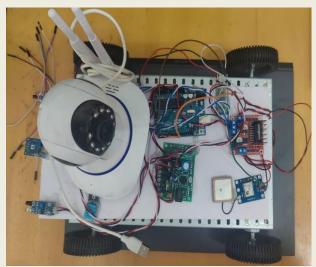
P-EXPO-2023, A Project and Product Exhibition was organized at JIT. All the final year students of ECE Department actively participated and displayed their projects with physical models and exhibited posters. A Total of 14 teams participated in the event.

Dr. Ganesh K, Assistant Professor, Dept. of ECE, BIET, Davangere has been invited as the external examiner for the evaluation of projects. He appreciated the efforts of the students and encouraged them.

Dr. Ganesh D B, Principal & Director, JIT and **Dr. Santosh Herur**, HOD, Dept. of ECE were also examined the student's projects.









Images of P-EXPO 2022-2023

Among all the projects exhibited, the following **Two projects** were ranked as first and second by the Evaluator.

First Place:

The Project work entitled "Quadcopter for modified transport system in villages with unlimited range" presented by Mr. Sahil khan S J and Mr. Subramanya B S Under the guidance Mr. Sharanabasaveshwara H B,Assistant Professor,Dept.of ECE has got First place in the exhibition.



Image of P-EXPO 2022-2023.

Second Place:

The Project Work entitled "Crop recommendation using IoT and Machine Learning" presented by Ms. Anusha D J, Ms. Sunidhi K R, Ms.Trupthi G G and Mr. Kiran Kumar K M Under the guidance of Ms. Anusha K, Assistant Professor, Dept. of E&CE has got Second place in the exhibition.



Image of P-EXPO 2022-2023



2022-2023 Batch Group Photo.

Student's Achievement

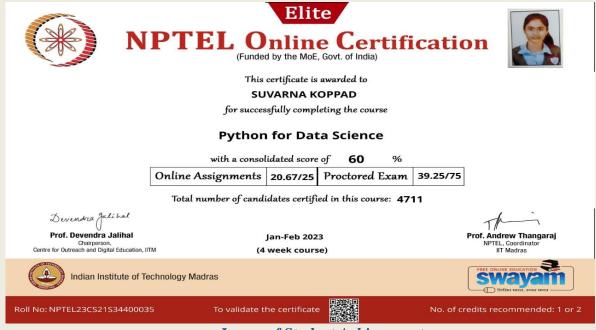


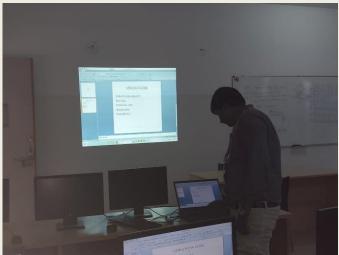
Image of Student Achievement.

Suvarna Koppad student from 3rd sem, E&CE department has successfully completed 4 week **NPTEL Online Course on "Python for Data Science"** awarded with Elite NPTEL online certification (Funded by the MoE, Govt. of India). Hearty Congratulations to the student on achieving Good Milestone on behalf of College Management, Principal, HOD, Teaching and Nonteaching staff.

INTERNSHIP TRAINING FOR 3rd SEM LATERAL ENTRY STUDENTS









Images of Intrenship Training.

A Sessions on Document and Poster Preparation, MS Excel, ICT and Computer and its parts, Google forms creation & MOOCs & its applications, Basics of VLSI Design, was conducted in the Department of Electronics and Communication Engineering for the 2nd year students as a part of their Internship training. **Mrs. Pushpalatha O**, Assistant Professor, **Mr. Ravikumar K I**, Assistant Professor, **Mr. Sharanabasaveshwara H B**, Assistant professor, **Dr. Mahantesh Mattada**, Associate professor, Dept. of ECE were the Resource Persons for the Sessions.

A Session on Fundamentals of C Programming, Basics of Embedded Systems, Introduction to Arduino and Its Programming, Hardware Circuit Interfacing using Arduino Programming, Hardware Interfacing with Arduino and Mini Projects was conducted by Abeyantrix Softlab (OPC) Pvt. Ltd. Davanagere, in the Department of

Electronics and Communication Engineering for the 2nd year students as a part of their intership training. Mr. Shivaraj V. S Product Application manager, Mr. Mantesh Shirur Senior Embbedded engineers, Ms. Shrilakshmi S. R Software Trainee Associate were the Resource Person for the Session. They enumarated on the features and uses of C programming. LED Interface, Multiple LED interfacing, Buzzer Interface, Switch with Buzzer and LED interface, LCD, IR Sensor, Fire Sesnor. Relay Interfacing, Motor Interfacing using Arduino, Mini Projects on line follower Robot and Smart light using LDR. A total of 50 students attended the session. This was followed by a practical session conducted by Resource Persons Abeyantrix Softlab OPC Pvt. Ltd., Davangere.











Images of Intrenship Training.

Student's Achievement



Images of Student Achievement

6th semester students of ECE Department participated in **MELANZE-2023**, A National level Techno Cultural Fest organized by TORQUE Association, Dept. of ME,SKSVMACET, Lakshmeshwar, Gadag.

Manjunath M, Akash G J, Anith Baba A,Sagar M G, Karibasaiah T M participated in **Group discussion** event of MELANZE-2023 and **Manjunath M Secured 2nd place** in the event and won a prize amount of Rs.800.

Mallikarjun M and Varun K participated in **Paper presentation** event and presented a paper titled "**IoT Driven Automation**" under the guidance of **Mr.Ravirayappa**, Assistant Proessor, Dept. of ECE. Hearty congratulation to all the participants.

Student's Achievement

Manjunath M and Bharath B P of 6th sem ECE participated and won 2nd prize in the COGNITION, a state level Project Exhibition held at BIET, Davangere on their mini-project titled "Robust motion detection using deeplearning in computer vision" under the guidance of Dr. Santosh Herur, HOD, Dept. of ECE. The students won a cash prize of Rs. 500.

Prathibha M H of 6th sem ECE participated and won **Consolation prize** in the **PAPYRUS**,a state level Technical paper presentation event held at BIET, Davangere on presenting paper titled " **A convolutional neural network-based method for early**

prediction of covid-19 from chest X-rays" and got a cash prize of Rs. 350. Hearty congratulations and best wishes to all the participants.





Images of Student Achievement

Industrial Visit:



Image of Industrial Visit

An Industrial Visit to "KAYNES TECHNOLOGY INDIA PRIVATE LIMITED", Mysuru was arranged by the department of ECE to provide practical exposure to the 6th Semester Students. Mr. Sharanabasaveshwara H B and Mrs. Savita Mamadapur, Assistant Professor, Dept. of E&C E accomapained the students. In this Industrial visit, students gained information regarding the PCB Designing and assembly of components over it and fabrication of semiconductors.

ICEI-2023 Best Paper Award.

All the final year students of E&CE Department presented their papers in the **2nd International Conference on Engineering Innovation (ICEI-2023)** organized by Jain Institute of Technology, Davangere in association with Technical Institute for Engineers, Banglore on 2nd June 2023. The following **Three Papers** has been awarded as the **Best Paper** among the presented papers in the virtual conference.

PAPER-I

The Paper entitled "Solar Power Based Modernization of Agriculture for crop protection using IoT" presented by Ms.Kavya Jain A, Ms.Lakshmi Priyanka, Ms.Nandini S K and Ms. Karishma S Under the guidance of Mr. Ravikumar K I, Assistant Professor, Dept. of E&CE has been selected as the Best Paper.



Image of Best Paper Award.



Image of Best Paper Award.

PAPER-II

The Paper entitled "Sandalwood Tree protection using IoT" presented by Mr.Bakkesh V, Mr.Ganesh H R and Mr.Karthik S R Under the guidance of Mrs. Rajeshwari H M, Assistant Professsor, Dept. of E&CE has been selected as the Best Paper.



Image of Best Paper Award.

PAPER-III

The Paper entitled "Automatic Ration Dispenser" presented by Ms. Lakshmi Sambaji Kale, Mr. Chetan M S, Ms. Navya Sai P and Mr. Nikhil S B Under the guidance of **Mr. Sunil M**, Assistant Professor, Dept. of E&CE has been selected as the Best Paper.

Success Meet - ICEI 2023



Image of ICEI Success Meet.

A Success meet was arranged on 23rd June 2023 at JITD auditorium in the view of successful completion of 2nd International Conference, ICEI-2023. Prof. Ravirayappa, Coordinator, gave a report on ICEI-2023. Technical Chair of ICEI, **Dr. Santosh Herur**, HOD, Dept. of ECE shared his experience and hardships faced during the conduction of ICEI 2023. He thanked all the teaching and non teaching staffs members for their cooperation in making ICEI-2023, a grand success. The General Chair of ICEI, **Dr. Ganesh D B**,Principal & Director, JIT,Davangere, appreciated the efforts of technical chair and his team for the successful conduction of ICEI-2023 and also conveyed the importance of publications and conference. Technical Chair and General Chair issued Letter of appreciation to all the Internal Session chairs, Session coordinators and ICEI coordinators. Heads of various department, Teaching and Non teaching staff members of JIT were present during the event.

"Tech Talk on "Advance VLSI Design and Trends in Semiconductor Industry"





Images of Tech Talk on "Advance VLSI Design and Trends in Semiconductor Industry.

Department of Electronics and Communication Engineering has conducted a **Tech Talk** on "Advance VLSI Design and Trends in semiconductor Industry" for Second Year Students . Mr. Praveen N, Sr. Design Verification Engineer and Dr. Arun Kumar K M, Sr. Design Verification Engineer from EXOPOLOG Technologies, Davangere were invited as resource persons. In this technical talk, they explained about the VLSI industry, Current status of the Indian Semiconductor industry, chip design, and skills required in the VLSI industry.

They also described about Chip Design & Fabrication, Design Challenges & Applications, Industry Players and Emerging Trends in VLSI technology. The gap between academics and the VLSI industry was well explained by the resource persons. The Students got information about different job roles in the VLSI domain. The technical talk was organized by Dr. Rajendra S Soloni and Mr. Sharanabasaveshwara H B under the banner of forum Encore and ISTE. Dr. Santosh Herur, HOD, Dept. of ECE addressed students before technical talk about the event and introduced the resource persons. A total of 69 students Participated.

"Skill Development Program on "Model Based Approach with MATLAB Simulink"









Images of Skill Development Program on "Model Based Approach with MATLAB Simulink

A Skill Development Program on "Model Based Approach with MATLAB Simulink" was organized by the department of ECE for 2nd year students from 25/07/2023 to 28/07/2023 (4 Days). Mr. Shivaraj V S and Mr. Rakesh from Abeeyantrix Softlab, Davangere were invited as the Resource persons. The Inauguration of SDP was presided by Dr. Ganesh D B, Principal & Director, JITD, Dr. Santosh Herur, HOD, Dept. of ECE also chaired the Programme. The SDP was convened by Dr. Rajendra S Soloni and coordinated by Mr. SharanabasaveshwaraH B and sponsored by Skill lab, JITD. 2nd year students of ECE department and all the staff members were present during the programme.

Student's Achievement



Image of Student Achievement

4th Semester student, **Ananya V** received a scholarship of Rs. 30,000/-from Muthoot M George Foundation for Higher education scholarship on 28/07/2023. Hearty Congratulations to her from the Pricipal, HOD and all the Faculty members.

Results 2022-2023 Odd Semester Results of 2022-2023

Sl no.	Semester	Overall Result %
1	III	46/69=66.66
2	V	48/64=75
3	VII	50/53=94.33

Topper's List

3 RD	USN	Name	Marks_Scored	Percentage
Semester				%
First	4JD21EC051	Sudeep Reddy K	695/800	86.87
Second	4JD21EC048	Sindushree M J	687/800	85.87
	4JD21EC004	Akshatha H	677/800	84.62
m1 1 1	4JD21EC012	Chandrika N S	677/800	84.62
Third	4JD21EC024	JD21EC024 Lingaraj B		84.62

5тн	USN	Name	Marks_Scored	Percentage
Semester				%
First	4JD20EC020	Mallikarjun M	780/900	86.66
Second	4JD20EC001	Abdul Mazeed Kaif N	717/900	79.66
Third	4JD20EC013	Kaveri	704/900	78.22

7 TH	USN	Name	Marks_Scored	Percentage
Semester				%
First	4JD19EC005	Arpitha K R	681/800	85.13
Second	4JD19EC048	Trupthi G G	672/800	84
	4JD19EC010	Bhoomika G R	671/800	83.88
Third	4JD19EC052	Chandana G P	671/800	83.88

Even Semester Results of 2022-2023

Sl. no.	Semester	Overall Result %
1	IV	48/68==70.58
2	VI	50/64==78.12
3	VIII	50/53==94.33

Topper's List

4 TH	USN	Name	Marks_Scored	Percentage
Semester				%
First	4JD21EC048	Sindushree M J	858/1000	85.8
Second	4JD21EC011	Bhumika S	852/1000	85.2
Third	4JD21EC053	Suvarna Shivappa Koppad	847/1000	84.7

6 TH	USN	Name	Marks_Scored	Percentage
Semester				%
First	4JD20EC020	Mallikarjun M	705/800	88.13
Second	4JD20EC039	Sahana K P	656/800	82
Third	4JD20EC001	Abdul Mazeed Kaif N	639/800	79.88

8тн	USN	Name	Marks_Scored	Percentage
Semester				%
Pi	4JD19EC005	Arpitha K R	446/500	89.2
First 4JD19EC017 Bhavana T		Bhavana T M	446/500	89.2
	4JD19EC009	Kavya Jain A	443/500	88.6
Second	4JD19EC050	Vimarsha S P	443/500	88.6
Third	4JD19EC048	Trupthi G G	437/500	87.4

2019-2023 Batch Toppers' List of ECE

Place	USN	Name	Percentage	Photo
First	4JD19EC005	Arpitha K R	87.01	
Second	4JD19EC010	Bhoomika G R	85.89	
Third	4JD19EC050	Vimarsha S P	84.33	