



Jain College of Engineering and Research

Udyambag, Belagavi-590008

(Approved by AICTE, New Delhi, Affiliated to VTU Belagavi & Recognised by Govt. of Karnataka)

Department of Electronics and Communication Engineering



nirjara

www.jcer.in

PREFACE

We are thrilled to present the latest edition of ELEKTRA, the year-end magazine of the Electronics and Communication Department, Jain College of Engineering and Research. This year's edition reflects the remarkable progress and achievements of the department over the academic year 2023-24.

In an era where technology and innovation continue to shape our future, the students and faculty of our department have consistently pushed the boundaries of knowledge, creativity, and practical implementation. This magazine serves as a testament to their dedication, showcasing a vibrant collection of technical articles, project highlights, research initiatives, and event retrospectives.

Through ELEKTRA, we aim to create a platform that not only celebrates academic excellence but also fosters a spirit of collaboration, innovation, and curiosity. Each page of this edition represents the hard work and passion of our students, supported by the guidance of our esteemed faculty. The experiences shared within these pages not only reflect the academic journey but also the bonds that make our department a nurturing and inspiring community.

GLANCE AT JCER

Jain College of Engineering and Research (JCER) is a prominent educational institution offering quality technical education. Located in Belagavi, Karnataka, India, JCER is part of the larger Jain Group of Institutions, known for their commitment to academic excellence across various disciplines.

JCER focuses on providing comprehensive engineering and research-based education to students, encouraging innovation, critical thinking, and professional growth. The institution emphasizes modern teaching methodologies combined with practical exposure to industry practices.



MESSAGE FROM PRINCIPAL



“Dear Students, Faculty, and Esteemed Readers,
It gives me immense pleasure to extend my warm greetings to everyone as we unveil this edition of this magazine. Jain College of Engineering and Research (JCER), Belagavi, stands as a beacon of knowledge, innovation, and holistic development. We have consistently strived to create an environment that fosters academic excellence, technical proficiency, and personal growth.

At JCER, our goal is to empower students not just with degrees, but with the critical thinking and problem-solving skills required in today’s dynamic world. Our dedicated faculty, cutting-edge infrastructure, and vibrant academic programs are aligned with the evolving demands of the global industry.

This magazine is a reflection of the hard work, creativity, and diverse talents of our students and faculty that make JCER a unique institution. I am proud to see how our students and faculty consistently push the boundaries of knowledge and creativity. Their enthusiasm for learning, research, and co-curricular activities is truly commendable. As you browse through these pages, I hope you feel the spirit of togetherness and innovation that defines our institution.

I would like to extend my heartfelt gratitude to the editorial team for their efforts in putting together this excellent publication. I also congratulate all contributors whose work is featured in this edition.

Best wishes to all for a year filled with learning, success, and growth.”

*Warm Regards,
Dr. S. V. Gorabal
Principal, JCER, Belagavi*

MESSAGE FROM DEAN ACADEMICS



“Dear Students, Faculty, and Esteemed Readers, It is with great pride and excitement that I address you in this edition of our Department magazine. At Jain College of Engineering and Research, Belagavi, we are committed to nurturing a dynamic academic environment that encourages intellectual curiosity, innovative thinking, and holistic personal development. As Dean of Academics, I am proud to witness the achievements of our students and faculty.

At JCER, we believe in the power of experiential learning. Our academic framework is designed to blend theoretical knowledge with practical applications, fostering a deeper understanding of the subject matter. We emphasize interdisciplinary learning, research, and industry collaborations, which give our students the edge they need to thrive in their careers.

This magazine is a reflection of the energy, talent, and dedication that flows through our campus. It is a platform that highlights the academic and extracurricular accomplishments of our students and showcases their creative abilities. I am truly impressed by the quality of work produced by our students, which exemplifies the spirit of innovation and teamwork that we strive to instill in them.

I would like to congratulate all the students, faculty members, and the editorial team who contributed to this magazine. Your hard work and creativity have culminated in a publication that we can all be proud of.

I encourage everyone to continue pushing boundaries, exploring new ideas, and excelling in all aspects of life.”

*Best Wishes,
Dr. Virupaxi B. Dalal
Dean Academics, JCER, Belagavi* **vi**

MESSAGE FROM HOD



“Dear Students, Faculty, and Esteemed Readers,
It is with great pride and enthusiasm that I share this message for our institute magazine. The Department of Electronics and Communication Engineering at Jain College of Engineering & Research, Belagavi, has always been at the forefront of academic excellence, research, and innovation. Our mission is to equip students with a solid foundation in theory and practical skills, preparing them to excel in the rapidly advancing field.

ECE plays a crucial role in today's technology-driven world, and our department is committed to equipping students with the knowledge and skills required to meet the demands of the industry. Our students are not only trained in core subjects but are also encouraged to engage in interdisciplinary projects that enhance their problem-solving abilities and creativity. Our faculty members are deeply committed to mentoring students, guiding research initiatives, and fostering a culture of innovation.

The department's research activities span diverse areas, including embedded systems, communication technologies, VLSI design, and the Internet of Things (IoT). This magazine showcases their hard work, perseverance, and the vibrant energy that defines our ECE family. I encourage you to explore the accomplishments highlighted in this edition and be inspired by the journey of our young engineers.

I would like to express my appreciation to the editorial team for their dedication in putting together this publication. My best wishes to all our students for continued success in their academic and professional pursuits.”

*Warm Regards,
Prof. Chaitanya K. Jambotkar
HoD, ECE, JCER, Belagavi*

EDITORIAL MESSAGE

Dear Readers,

“Every edition of this magazine is a milestone, capturing the progress and evolution of our field. It’s a reminder of how far we’ve come and how far we still have to go.”

It is with great pleasure that we present to you the latest edition of our Electronics and Communication (EC) department magazine. This publication represents the dedication, creativity, and technical excellence of our students and faculty, as well as the exciting advancements taking place within our department.

In an era where technology is transforming the way we live, work, and communicate, the EC field continues to play a pivotal role in shaping our future. This magazine is a reflection of the tremendous effort, talent, and passion within our department as we contribute to this dynamic and rapidly evolving industry.

Our goal with this magazine is not only to inform but also to inspire. Whether you are a student exploring new areas of interest, a faculty member sharing your expertise, or an industry professional keeping pace with the latest trends, this publication offers something for everyone.

A heartfelt thank you to everyone who contributed their time, energy, and expertise to make this magazine possible. Your dedication is what drives the success of this publication.

We invite you to dive into this edition and explore the exciting world of electronics and communication. Enjoy the journey!

*Sincerely,
Faculty Advisor,
Prof. Vijaykumar Patil*

Editorial Board

Faculty Advisor

Prof. Vijaykumar Patil

Student Co-ordinators

Mr. Saikrishana C.

Mr. Manjunath K.

Student Members

Ms. Kumuda R.

Mr. Vinit J.

Mr. Abhishek C.

Ms. Tejashree H.

Ms. Samiksha A.



Contents

1	Vision & Mission	1	11	Savishkar (College Fest)	29
2	PEOs & PSOs	2	12	Sports	31
3	Staff	3	13	Placement Associate	36
4	Infrastructure	6	14	A year at reflection	39
5	Departmental Activities	8			
6	Publication By Faculty	19			
7	Toppers of the Semester	20			
8	Academic Toppers	24			
9	Projects	26			
10	Workshops	28			



Vision



Institute Vision:

“To become a leading institute that offers quality technical education and research, nurturing professionally competent graduates with strong ethical values.”

Department Vision:

“To develop professionals in the field of Electronics & Communication, embodied with core competence and human values to meet trending needs of industry and research.”

Mission

Institute Mission:

- M1: Achieve academic excellence through innovative and effective teaching-learning practices.
- M2: Establish industry and academia collaborations to cultivate a culture of research
- M3: Ensure professional and ethical values to address societal needs

Department Mission:

- M1: Impart domain knowledge and technical skills with innovative pedagogies.
- M2: Formulate continuous industry-institute collaboration and research to meet recent trends.
- M3: Inculcate discipline, human values and professional ethics to serve the societal needs.





Program Educational Objectives (PEOs)

PEO 1: Succeed in professional career by imbibing domain knowledge.

PEO 2: Adopt cutting edge technologies to pursue higher education and research.

PEO 3: Demonstrate team work, social, ethical, leadership qualities and effective communication skills.

Program Specific Outcomes (PSOs)

PSO1: Should be able to understand the concepts of applied science, humanities and applications in the field of semiconductor technology involving analog electronics, digital electronics, power electronics, signal processing, embedded systems, VLSI and Communication/networking.

PSO2: Should have the capability to comprehend the technological advancements in the modern tool usage to analyze, design and implement various real time solutions.



TEACHING STAFF



Prof. Chaitanya K. Jambotkar
HOD & Asst. Professor
M. Tech



Dr. Raghavendra R. Maggavi
Associate Professor
B.E, M. Tech, Ph.D



Prof. Govinda M R
Asst. Professor
M.Tech



Dr. Virupaxi B. Dalal
Dean Academics & Professor
M. Tech, Ph.D



Dr. Veeresh M. Hiremath
Asst. Professor
M.Tech, Ph.D



Prof. Vivek Kajagar
Asst. Professor
M.Tech

TEACHING STAFF



Prof. Narayana Reddy D

Asst. Professor
M.Tech



Prof. Ashwini Gudyalakar

Asst. Professor
M.Tech



Prof. Rajani A.

Asst. Professor
M.Tech



Prof. Jayashree S. More

Asst Professor
M.Tech



Prof. Vijaykumar Patil

Asst. Professor
B.E, M.Tech



Prof. Supriya N. Kadolkar

Asst. Professor
M.Tech



Prof. Sneha A Jagajampi

Asst. Professor
M.Tech

NON-TEACHING STAFF



Mr. Niranjana Mathapati
Technical Staff
Diploma in Electrical Engineering



Ms. Shradha Bokade
Technical Staff
Diploma in Electronics Engineering



Ms. Aishwarya Kanavi
Technical Staff
Diploma in Electronics Engineering

INFRASTRUCTURE

Classes

Class Room No. 305



Class Room No. 306



Class Room No. 307



Class Room No. 314



Labs

Digital Electronics Lab



DSDV Lab



Embedded Systems Lab



Analog Electronics Lab



DEPARTMENTAL ACTIVITIES

01

Akash Diva

02

Prakashan

03

Ambassadors' Summit

04

Codify

05

Arduino Odyssey

06

Project Exhibition

07

Technical Talk

08

Innovation Oasis

09

IEEE Vision

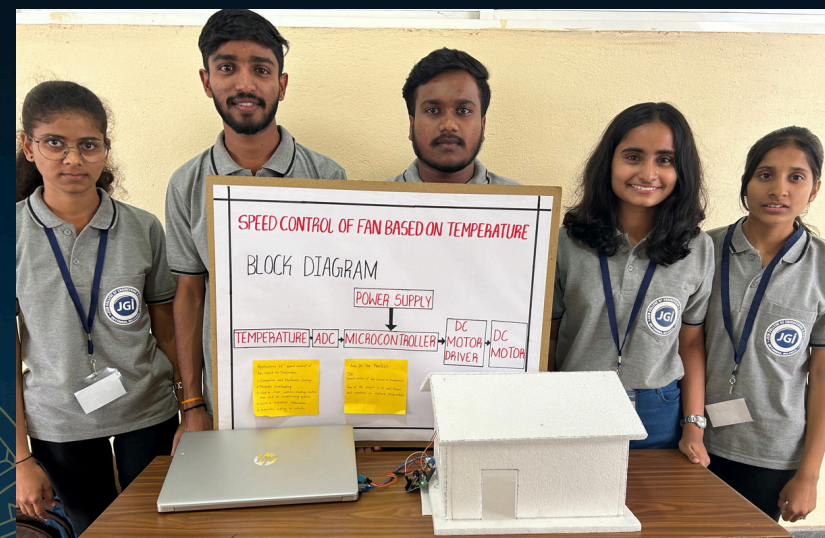
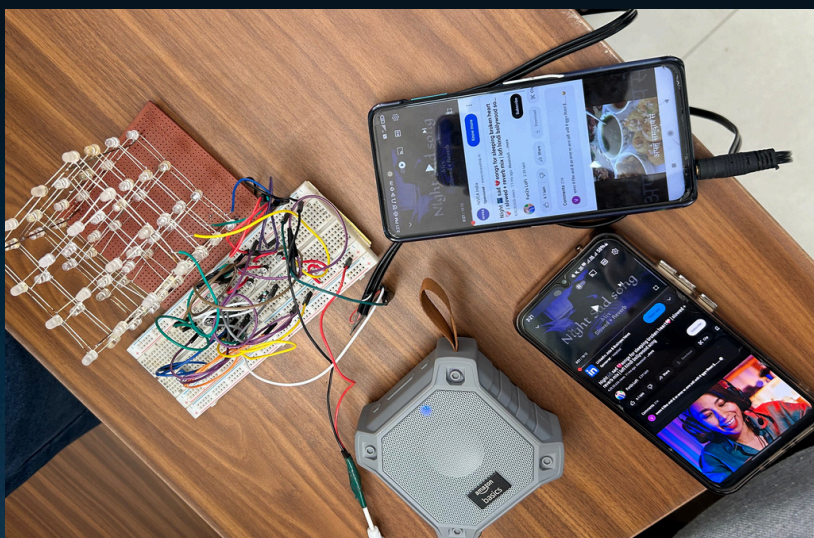
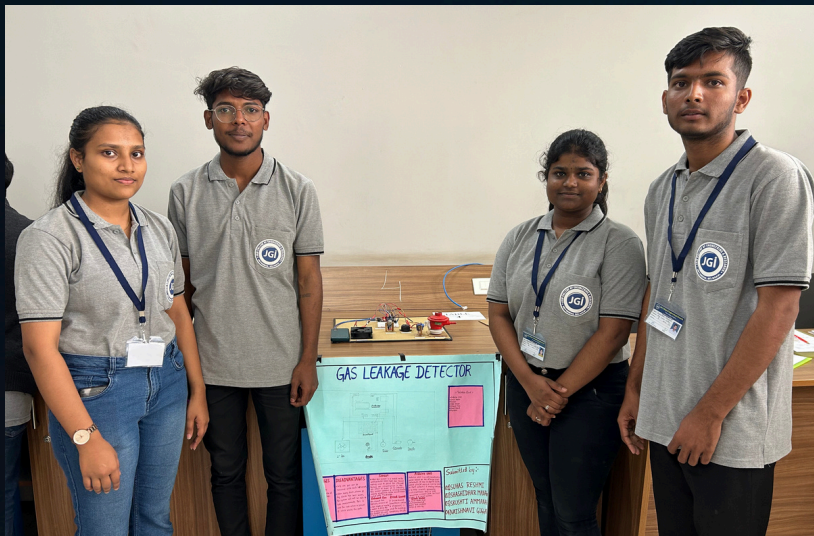
10

Teacher's Day Celebration

Akash Diva



Prakashan



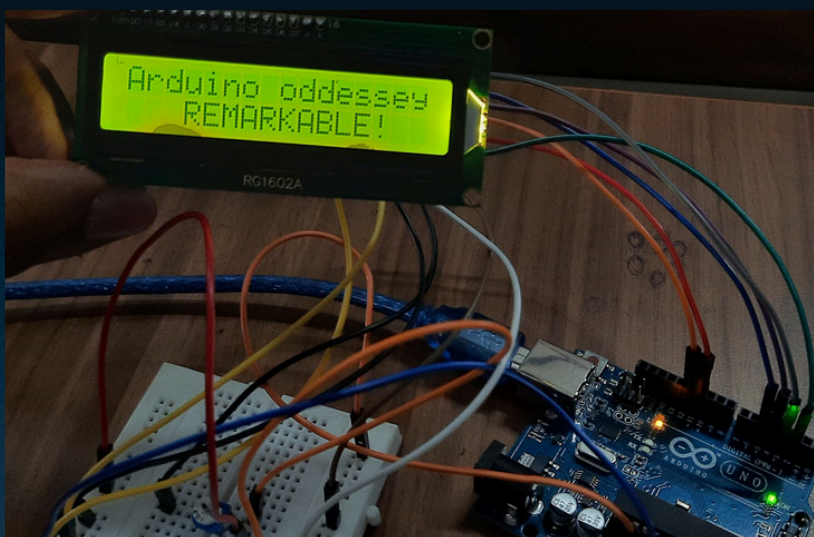
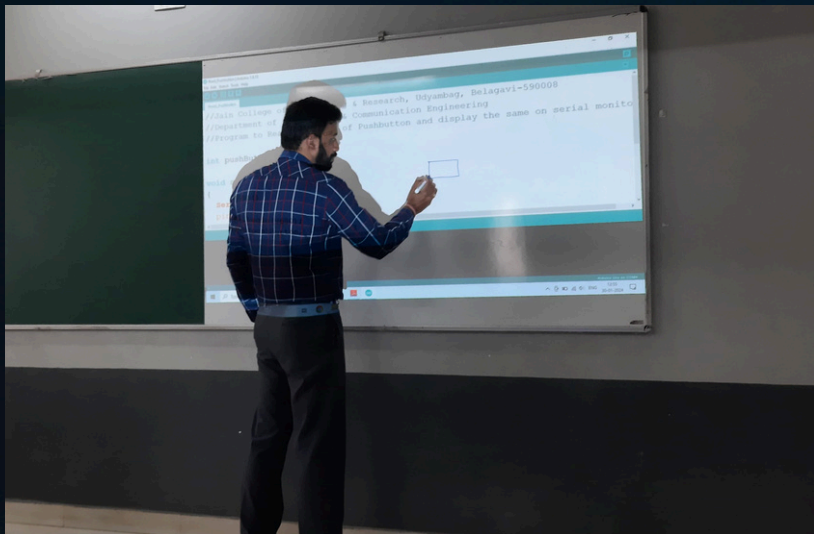
Ambassadors' Summit



Codify



Arduino Odyssey



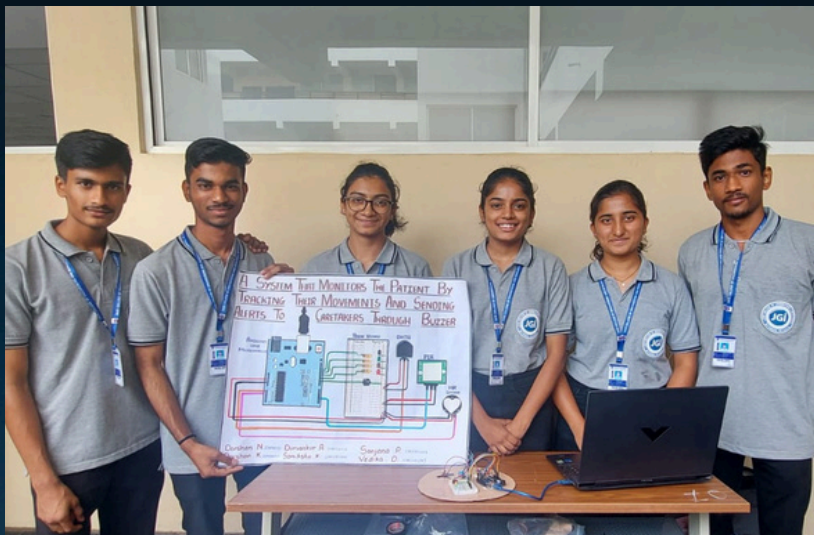
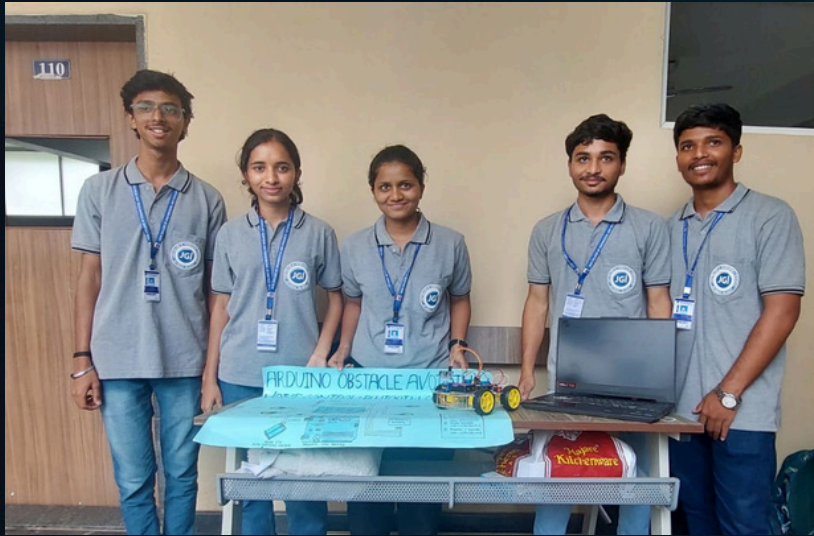
Project Exhibition



Technical Talk



Innovation Oasis



IEEE Vision



Teacher's Day Celebration



PUBLICATIONS BY FACULTY



Dr. Virupaxi B. Dalal

Title	Conference Details
1) A Swarm of Solutions: Tunicate-Inspired Adaptive Equalization for Distortion-Free Digital Communication	2023 IEEE North Karnataka Subsection Flagship International Conference (NKCon) 979-8-3503-1404-5/23/\$31.00 ©2023 IEEE DOI: 10.1109/NKCon59507.2023.10396474
2) Smart Dustbin Model for Waste Management	2023 IEEE North Karnataka Subsection Flagship International Conference (NKCon) 979-8-3503 1404-5/23/\$31.00 ©2023 IEEE DOI: 10.1109/NKCon59507.2023.10396474



Prof. Veeresh Hiremath

Title	Conference Details
1) Energy efficient routing protocol for enhancing the network lifetime in wireless sensor network	Indonesian Journal of Electrical Engineering and Computer Science r 946 Vol. 35, No. 2, August 2024, pp. 946-958 ISSN:2502-4752,DOI: 10.11591/ijeecs.v35.i2.pp946-958

TOPPERS OF THE SEMESTER

3rd Semester



USN	NAME	SGPA
2JR22EC032	POOJA RAVINDRA BENADE	9
2JR22EC041	RAKSHITA ANITA KURABET	9
2JR22EC015	GANGA SHIVANAND UDIKERI	8.95
2JR22EC039	PRUTHVI HANAMANTHA MELGIRI	8.95
2JR22EC050	SANJANA RAJENDRA MALAJI	8.85

4th Semester



USN	NAME	SGPA
2JR22EC032	POOJA RAVINDRA BENADE	9
2JR22EC041	RAKSHITA ANITA KURABET	9
2JR22EC015	GANGA SHIVANAND UDIKERI	8.95
2JR22EC039	PRUTHVI HANAMANTHA MELGIRI	8.95
2JR22EC050	SANJANA RAJENDRA MALAJI	8.85

TOPPERS OF THE SEMESTER

5th Semester



USN	NAME	SGPA
2JR21EC035	SAMIKSHA LAXMAN MARVE	9.28
2JR21EC028	PRATIKSHA ASHOK PATIL	9.17
2JR21EC036	SAMIKSHA SUNIL ATIWADKAR	9.17
2JR22EC407	KRISHNA GONDKAR	9.06

6th Semester



USN	NAME	SGPA
2JR21EC028	PRATIKSHA ASHOK PATIL	9.55
2JR21EC037	SANIKA CHOPADE	9.55
2JR21EC044	SOUMYA MALIKARJUN GOKAK	9.55
2JR22EC407	KRISHNA GONDKAR	9.55
2JR21EC035	SAMIKSHA LAXMAN MARVE	9.5
2JR21EC005	ARPITA RAJENDRA MADLUR	9.41
2JR21EC033	SAKSHI CHOUGLE	9.41
2JR21EC036	SAMIKSHA SUNIL ATIWADKAR	9.41
2JR21EC052	TEJASHREE HIREMATH	9.41

TOPPERS OF THE SEMESTER

7th Semester 

USN	NAME	SGPA
2JR20EC036	SOUMYA BASAVARAJ PATTED	9.72
2JR20EC035	SONIA RAJAN ANVEKAR	9.4
2JR20EC015	MANOJ S CHOUGALA	9.32
2JR20EC025	RAFIAKHATOON BHAVIKATTI	9.32

TOPPERS OF THE SEMESTER

8th Semester



USN	NAME	SGPA
2JR20EC041	VEENA YASHWANT PATIL	9.9
2JR20EC004	ANANT D VERNEKAR	9.7
2JR20EC015	MANOJ S CHOUGALA	9.7
2JR20EC036	SOUMYA BASAVARAJ PATTED	9.7
2JR21EC400	MAHIMA DESAI	9.7
2JR20EC002	ABDULREHAMAN I HAKIM	9.5
2JR20EC012	LOHIT RAMESH HADAPAD	9.5
2JR20EC022	PRATHAM VINAYAK SALUNKE	9.5
2JR20EC025	RAFIAKHATOON BHAVIKATTI	9.5
2JR20EC032	SANJU HIREMATH	9.5
2JR20EC034	SHREELAXMI KALANNAVAR	9.5
2JR20EC035	SONIA RAJAN ANVEKAR	9.5
2JR20EC038	SOUMYA MANJUNATH RAIKAR	9.5
2JR20EC044	YADNESH KULKARNI	9.5
2JR21EC401	NIKISHA	9.5

ACADEMIC TOPPERS

2nd YEAR



USN	NAME	SGPA
2JR22EC032	POOJA RAVINDRA BENADE	9
2JR22EC041	RAKSHITA ANITA KURABET	9
2JR22EC015	GANGA SHIVANAND UDIKERI	8.95
2JR22EC039	PRUTHVI HANAMANTHA MELGIRI	8.95
2JR22EC050	SANJANA RAJENDRA MALAJI	8.85

3th YEAR



USN	NAME	SGPA
2JR22EC032	POOJA RAVINDRA BENADE	9
2JR22EC041	RAKSHITA ANITA KURABET	9
2JR22EC015	GANGA SHIVANAND UDIKERI	8.95
2JR22EC039	PRUTHVI HANAMANTHA MELGIRI	8.95
2JR22EC050	SANJANA RAJENDRA MALAJI	8.85

ACADEMIC TOPPERS

4th YEAR



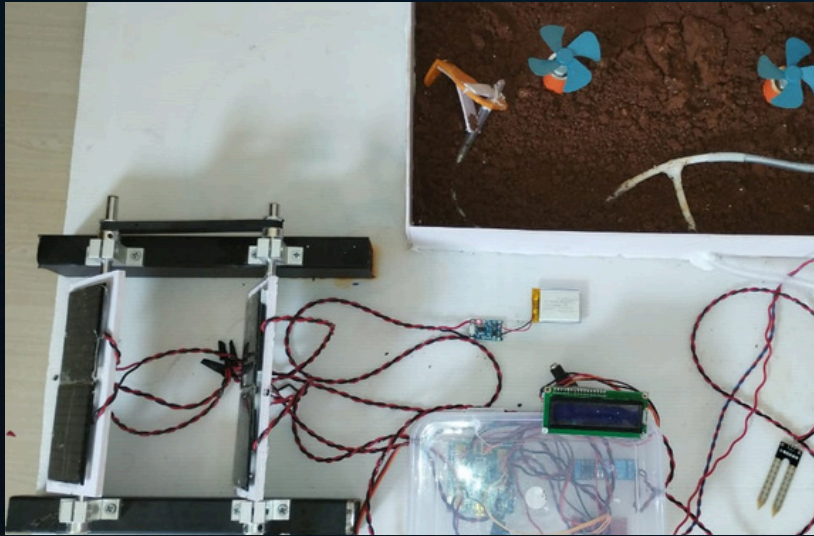
USN	NAME	SGPA
2JR20EC036	SOUMYA BASAVARAJ PATTED	9.61
2JR20EC015	MANOJ S CHOUGALA	9.5
2JR20EC035	SONIA RAJAN ANVEKAR	9.44

PROJECTS

Mini Projects



Major Projects



WORKSHOPS



ECE department students who attended a one-day workshop on the Cadence tool, organized by Ekalakshya at KLE Institute of Technology, Hubballi.

SAVISHKAR 2023-24

ECE being the Host Department at Savishkar 2023-24



Faculty Savishkar Co-ordinator
Prof. Ashwini Gudyalakar

SAVISHKAR 2023-24

ECE being the Host Department at Savishkar 2023-24



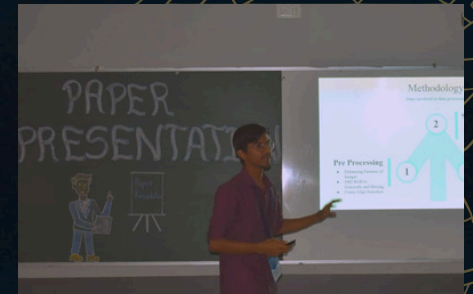
Leben Fabula



Trouble Shooting



Mr. and Ms. Savishkar



Paper Presentation



Checkmate



Hook on Look



Amazing Race

SPORTS

Winners of Annual Sports Meet 2023-24

Individual Events (Men)

1st Place

EVENT	NAME
100 MTRS RUN	ANDREW DSOUZA
BADMINTON SINGLES	SAGAR SIDDNANNAVAR

2nd Place

EVENT	NAME
SHOT PUT	ARMAN
DISCUSS THROW	PRATHAM S

3rd Place

EVENT	NAME
DISCUSS THROW	SANJU H

SPORTS

ECE Department Students at the Annual Sports Meet 2023-24



SPORTS

Winners of Annual Sports Meet 2023-24

Individual Events (Women)

1st Place

EVENT	NAME
100 MTRS RUN	SAKSHI
BADMINTON SINGLES	KALYANI JOGLEKAR

2nd Place

EVENT	NAME
DISCUSS THROW	SANIKA CHOPADE
100 MTRS RUN	PRATIBHA

3rd Place

EVENT	NAME
100 MTRS RUN	RAFIA

SPORTS

Winners of Annual Sports Meet 2023-24

Group Events (Men)

1st Place

EVENT	NAME
BADMINTON DOUBLES	SAGAR S AND SAMBHAV K
TUG OF WAR	SAIKRISHNA & TEAM
4 X 100 MTRS RELAY	SAHIL K AND TEAM

2nd Place

EVENT	NAME
TUG OF WAR	VIRAG & TEAM
BADMINTION DOUBLES	SANJU H AND PRATHIK C

SPORTS

Winners of Annual Sports Meet 2023-24

Group Events (Women)

1st Place

EVENT	NAME
BADMINTON DOUBLES	KALYANI J AND PRATHIBHA
4 X 100 MTRS RELAY	RAFIA & TEAM

2nd Place

EVENT	NAME
TUG OF WAR	RAFIA & TEAM

PLACEMENT ASSOCIATE

 **accenture**

 **CitiusTech**

 **cognizant**


LEARNWIK

Capgemini 

SG 
SCIENTIFIC GAMES


Vayavya
Labs Pvt. Ltd.

Atos

 **Norwin**
Technologies

MEPAS 

DLithe®
Be Agile..Be in Demand

 **IntelliPaat**


TATA
TATA COMMUNICATIONS

**Tech
Mahindra**

 **SiFive**

 **doshahleen**
COMMITMENT DELIVERED


Mu Sigma
DO THE MATH

 **Avalon**
manufacturing your success

PADAH 

 **Mphasis**
The Next Applied

tcs **TATA**
CONSULTANCY
SERVICES

PLACEMENT 2023-24

SL.NO.	NAME OF STUDENT	PLACED COMPANY	PACKAGE
1	SONIA ANVEKAR	SCIENTIFIC GAMES	8LPA
2	PRATHAMESH H	SCIENTIFIC GAMES	8LPA
3	LOHIT HADAPAD	SCIENTIFIC GAMES	8LPA
4	TANUSHREE MALAGALI	DLITHE	4LPA
5	RAFIKHA TOON M BHAVIKATTI	DLITHE	4LPA
6	PRATIK SHIVANAND KALAGHAN	DLITHE	4LPA
7	SWAPNIL GODSE	DLITHE	4LPA
8	PARVEEZ MUJAVAR	DLITHE	4LPA
9	SONIA ANVEKAR	DOSHAHEEN TECHNOLOGIES	4LPA
10	SHREELAXMI K	JLC	4LPA
11	ADARSH KUDACHI	KODNEST	4LPA
12	ANANT VERNEKAR	KODNEST	4LPA
13	PRATHAM SALUNKE	KODNEST	4LPA
14	SAJID MANNIKERI	KODNEST	4LPA
15	AVANI SITAPARA	KODNEST	4LPA
16	SHREELAXMI KALANNAVAR	KODNEST	4LPA
17	SOUMYA PATTED	KODNEST	4LPA

PLACEMENT 2023-24

SL.NO.	NAME OF STUDENT	PLACED COMPANY	PACKAGE
18	LOHIT HADAPAD	KODNEST	4LPA
19	PRATHAMESH HANNURKAR	KODNEST	4LPA
20	MANJUNATH KAMKAR	KODNEST	4LPA
21	SOUMYA RAIKAR	KODNEST	4LPA
22	PRADNYA NAIK	KODNEST	4LPA
23	MAHIMA D	J SPIDERS	4LPA
24	ABDULREHAMAN HAKIM	J SPIDERS	4LPA
25	DISHA PATIL	J SPIDERS	4LPA
26	SAIKRISHNA CHIGARE	J SPIDERS	4LPA
27	SHREELAXMI KALANNAVAR	J SPIDERS	4LPA
28	SAKSHI ALAWANI	J SPIDERS	4LPA
29	RAHUL METRI	KODNEST	4LPA

SPECIAL THANKS TO EDITORS



Mr. Saikrishna C.



Mr. Manjunath K.



Ms. Kumuda R.



Mr. Vinit J



Mr. Abhishek C.



Ms. Tejashree H



Ms. Samiksha A.

A YEAR AT REFLECTION

As we reflect on the academic year 2023-24, it stands as a testament to the growth, learning, and resilience within the Electronics and Communication Department at Jain College of Engineering and Research. This year has seen us navigate a rapidly changing world, pushing us to adapt, innovate, and strengthen our community bonds.

Despite the challenges we faced, our students and faculty embraced each one with determination, transitioning seamlessly to new modes of learning and engaging in groundbreaking research and projects. ELEKTRA proudly showcases these achievements from academic excellence to creative projects, leadership roles, and extracurricular milestones.

Through collaboration and unwavering dedication, we have overcome obstacles and celebrated every victory, large and small, as a united department. As we step forward into the future, let us carry the lessons, friendships, and accomplishments that this year has brought us.

Here's to another year filled with growth, innovation, and shared success!



Jain College of Engineering and Research Udyambag, Belagavi.

Department of Electronics & Communication Engineering



Batch 2020 - 2024