

#### Arka Educational and Cultural Trust® JAIN INSTITUTE OF TECHNOLOGY

**Davanagere**(A Unit of Jain Group of Institutions, Bangalore)

Accredited by NBA, New Delhi: EEE, ECE & CSE. (Valid Up to: 30.06.2026)



**BI ANNUAL JULY - DECEMBER 2024** 

#### **DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**



"To create technically superior, highly competent, ethically strong and socially responsible Electrical and Electronics Engineers with innovative and entrepreneurship qualities."

#### "MISSION"

M1 - To impart excellent Electrical and Electronics Engineering Education by providing Innovative teaching, career focused education and experiential learning.

M2-To create an environment for innovative thinking and contribute to the advancement of science and technology to meet the ever changing needs of society.

M3-To provide student centric platform to produce socially responsible, competent engineers and entrepreneurs with ethical standards.

**EDITORIAL TEAM** 

PROF. PRADEEP KANAVI **ASSISTANT PROFESSOR** 

MR. SANDEEP PATIL M S



#### **PROGRAM OUTCOMES**

- 1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and computer science and engineering to the solution of complex engineering problems.
- 2. **Problem analysis**: Identify, formulate, review research literature, and analyze complex computer engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 3. **Design/development of solutions**: Design solutions for complex computer engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- 4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- 5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern computer engineering and IT tools including prediction and modelling complex computer engineering activities with an understanding of the limitations.
- 6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- 7. **Environment and sustainability**: Understand the impact of the professional computer engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- 8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the computer engineering practice.
- 9. **Individual and team work**: Function effectively as an individual, and as member or leader in diverse teams, and in multidisciplinary settings.
- 10. **Communication**: Communicate effectively on complex computer engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- 11. **Project management and finance**: Demonstrate knowledge and understanding of the computer engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. **Life-long learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### PROGRAM SPECIFIC OUTCOMES (PSO's)

#### A graduate of the Electrical & Electronics Engineering Program will demonstrate:

PSO1: Apply the knowledge of mathematics, science and electrical engineering fundamentals to solve complex problems in electrical machines, control systems, power systems and electronics.

PSO2: Specify, architect and analyze power systems that efficiently generate, transmit, distribute and utilize electrical power in the present context.

PSO3: Analyze, design & maintenance of modern electrical drives system and modern lighting system to conserve electrical energy.

### PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

#### A graduate of the Electrical & Electronics Engineering Program will demonstrate:

PEO1: To become the resource of Electrical and Electronics engineering.

PEO2: To work in multidisciplinary areas involving core engineering and engaged in lifelong learning for successful professional career.

PEO3: To be successful in taking leadership roles and entrepreneurial positions.

#### **MESSAGE FROM THE CHAIRMAN**

We are a school that prides itself not in fostering academic excellence but also in making our learners append at the school satisfying, fulfilling and joyous. lintend to take the JGI Group to the next level, employ more effective methods to make the students think differently and instill in them with positive attitude towards inclusive growth that benefits them and the society at large.



DR. CHENRAJ ROYCHAND
CHAIRMAN JGI
BENGALURU

#### **MESSAGE FROM THE PRINCIPAL**



It's my pleasure to introduce this latest issue of the JIT, EEE Newsletter. I would like to congratulate Editorial team for bringing out a beautiful and informative EEE newsletter which has showcased the various activities, events in the department, and the achievements of students. and faculties. I look forward to achieve greater heights in the years to come.

DR. GANESH D B
PRINCIPAL & DIRECTOR JIT
DAVANAGERE

#### **MESSAGE FROM THE HEAD OF THE DEPARTMENT**

Welcome to the Department of Electrical and Electronics Engineering at JIT Davangere. We started our journey in the year of 2011 with an intake of 60 students. The department has full-fledged laboratories as prescribed by VTU syllabus with modern equipment's. We have grown our expertise ,competence .

Core Electrical and Electronics Engineering curriculum and research. We have a strong undergraduate program in Electrical and Electronics Engineering in B.E. We conduct many activities throughout the academic year like Workshops, Seminars, technical talks, skill enhancement programs and other co-curricular activities under the department Form "POTENZA" .We are happy to bring out our department EEE newsletter, which showcases all the activities of the department. I congratulate the team for their continuous effort.

DR.SANTOSH .M. NEJAKAR

PROFESSOR & HEAD,

DEPT. OF ELECTRICAL & ELECTRONICS ENGINEERING, JITD

# "THE IMPACT OF RESEARCH AND DEVELOPMENT ON THE EDUCATION SYSTEM"

**3RD AUGUST 2024** 















One day orientation program was organized on "The Impact of Research and Development on the Education System" in collaboration with Visvesvaraya Technological University (VTU), Belagavi on 03/08/2024. Dr.B.E.Rangaswamy, Registrar, VTU Belagavi was the Chief guest, Dr. Ganesh D B, Principal and Director, JIT was the president of the event, Dr.Basavakumar K G, Director (R&D), Global campus, VTU, Belagavi and Dr. Santosh M Nejakar, Dean (R&D), JIT, Davangere were the conveners of the event, Dr. Manjappa sarathi, Advisor, JIT, Dr.Marulasiddappa H B and Dr. Preetha P S were the coordinators of the event grace the occasion.

Participants from various colleges, Deans, HODs, teaching staffs of various departments gain the knowledge of all the sessions.

Morning first Session was delivered by Dr.B.E.Rangaswamy, Registrar, VTU on "Impact of research in curriculum Development and Assessment". Second session was delivered by Dr. Manjappa sarathi on "Research based Innovations in Teaching and Learning padagogy" and third session was handled by Dr.Basavakumar K G, Director (R&D) on "Innovation Avenues".

Afternoon first session was delivered by Dr. Nagaswarupa H P, Professor and Chairman, Dept. of Studies in Chemistry, Davanagere University on "Research Grant Proposals" and the final session was delivered by Dr. Santosh M Nejakar, Dean (R&D) on "Impact of IPR in engineering education". Program was concluded by formally thanking all the coordinators, participants, HODs and staffs of various departments.

# "ACADEMIC & VOCATIONAL EMPOWERMENT: EEE STUDENTS MENTORING PROGRAM"

**8TH AUGUST 2024** 



As part of the NSS course (BNSK459), our 4th semester JITD EEE students are making a significant impact by mentoring local government primary school children's. This initiative focuses on enhancing both academic performance and vocational education, providing young learners with valuable support and guidance.

The students are actively involved in helping these kids strengthen their foundational knowledge in core subjects, while also introducing them to practical, skill-based learning opportunities. Through this effort, they are not only fostering a brighter future for the younger generation but also gaining a deeper understanding of social responsibility.

#### **SEMICON INDIA 2024**

11 SEP 2024





Webinar on SEMICON India 2024 inauguration event was arranged in EEE department A P J Abdul Kalam seminar Hall. All faculties of department along with 3rd sem students of EEE, Mechanical and Civil students attended.

In his speech Prime Minister Narendra Modiji emphasized on India's potential to become a global hub for semiconductor design, manufacturing, and technology development. He highlighted that India is on the "brink of a semiconductor revolution" and that the country's policies have led to over \$1.5 trillion in investments in the sector in a short period. Modiji announced that the government is providing 50% financial support for setting up semiconductor manufacturing facilities and praised state governments for their contributions to advancing the industry.

The event, which lasts three days, focuses on showcasing India's semiconductor strategy, with the theme "Shaping the Semiconductor Future." It includes participation from over 250 exhibitors and 150 speakers, featuring key leaders and experts from the global semiconductor industry.

#### **WALKATHON FOR HUMANITY: A STEP TOWARDS COMPASSION**

21 SEP 2024



Students from the Electrical Department of Jain Institute of Technology actively participated, reflecting their commitment to social responsibility. The students, filled with enthusiasm, walked in support of the noble cause, raising awareness about the importance of humanitarian values..

The Principal of Jain Institute of Technology, Dr. Ganesh DB, along with the Head of the Department of Electrical and Electronics Engineering, Dr. Santosh M. Nejakar, and the event coordinator, Dr. Preetha PS, provided valuable support and encouragement to the students. Their guidance motivated the students to engage wholeheartedly in the event. The Walkathon was a heartening initiative that resonated with the core values of empathy and service, and Jain Institute of Technology's participation exemplified its ongoing commitment to community engagement and holistic education. The event concluded with a collective pledge to continue upholding humanitarian values in everyday life, leaving participants inspired and united in their resolve to make the world a better place.



# EEE STUDENTS PARTICIPATE IN NATIONAL-LEVEL PAPER PRESENTATION AT SAI INTELLIVERSE 2024

12TH JUL 2024



Varun B K and Manoj R 6th semester dept of EEE, JITD participated in paper presentation in SAI INTELLIVERSE, a national level technical symposium on 12th july 2024 held at sri sairam college of engnearing, Anekal bengaluru, principal and department head and staffs congratulated the the participated students for effort and enthusiasm.

### EXPLORING SUSTAINABLE AGRICULTURE: EEE STUDENTS' VISIT TO TARALABALU KRISHI KENDRA

4TH OCT 2024



Third semester Students of Electrical & Electronics Engineering visited the Organic Plant at Taralabalu Krishi Kendra, Davanagere on 4th October 2024. This visit would serve as an integral part of our Social Connect and Responsibility subject, allowing students to gain practical insights into sustainable farming practices and organic agriculture. The agricultural officer Mr.Sanganagoudru explained about chemical farming, natural and organic farming methods and advantages of using organic farming. Under the guidance of Dr. Marulasiddappa H.B. and Prof. Dhanush S., the students visited an organic farm, deepening their understanding of eco-friendly farming techniques.

#### **IEEE STUDENT CHAPTER AWARENESS PROGRAM**

4TH OCT 2024







IEEE STUDENT chapter awareness program was organized in APJ abdul kalam Seminor hall, EEE department, JITD at 13th September 2024. Resource person Mr. Dhanu Pattannashetti, Senior IEEE client services gave the insight into requirements to start IEEE student chapter, activities and benefits of IEEE student chapter and how it can enhance both faculty and student engagement in the field of engineering.

#### FREE EYE CHECK-UP CAMP

27TH & 28TH SEP 2024







NSS unit of Jain institute of technology, Davanagere, in collaboration with Dr. Agarwal's Eye hospital, successfully organized a free eye check up camp for a students and staff members on the 27th and 28th september 2024, the event inaugurated by the principal and director Dr. Ganesh D B., alongside the renowned ophthalmologist Dr. Navya from Dr. Agarwal Eye hospital, other notable participants included Mr. Virupakshappa, Manager, Dr. Agarwal hospital, and ophthalmologists Mr. Gagan Mr. Ravikiran, Ms. Archana. The Event was coordinated by Dr. Preetha P S Department NSS coordinator.

# POTENZA-2K24 INAUGURATION AND FRESHER'S DAY: ILLUMINATING CAREER PATHS AND INDUSTRY INSIGHTS FOR EEE STUDENTS

8TH OCT 2024







Department forum Potenza-2K24 inauguration fresher's day for third semester students was organized in JIT Auditorium. Mr. Karthik H S, Assistant Engineer, BESCOM, Kukkawada, Mr. Sanjay kumar, Assistant Engineer, BESCOM, Davanagere and Proud alumni of our department Mr. Rajgagan, Actor, Bengaluru and Kannada film "Prakarna Tanikahattadallide" team were invited as chief guests for the function. Function was inaugurated by lighting the lamp. Guests addressed about carrier oppourtunites for electrical engineers and needs of the industry and give the over view of the KPCL, KPTCL, ESCOM's operation and maintenance and Alumni and the Guest Mr.Rajgagan talk about college and department supported building the carrier in other field. Principal and Director Dr. Ganesh D B, Dr. Santosh M Nejakar, HOD, EEE dept, Forum Coordinators Dr.Chetan H R, Student forum representative Mr. Abhishek were present at the function. Academic toppers of 5th and 7th sem were also awarded. Students, faculties and non teaching staffs participated very enthusiastically and made the function memorable.



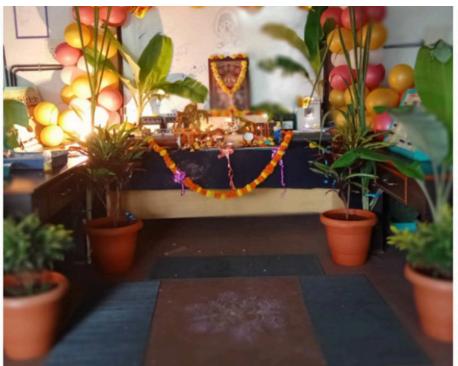






# POTENZA-2K24 INAUGURATION AND FRESHER'S DAY: ILLUMINATING CAREER PATHS AND INDUSTRY INSIGHTS FOR EEE STUDENTS

8TH OCT 2024











The Department of Electrical and Electronics Engineering (EEE) at Jain Institute of Technology celebrated Ayudha Pooja on 11th October 2024 with great enthusiasm. The event honored tools and instruments symbolizing the spirit of innovation and learning. Staffs and students came together to mark the occasion with traditional rituals and fervor.

#### "GREEN ROOTS: PLANTATION AND TREE ADOPTION DRIVE"

26TH OCT 2024



















The Department of Electrical and Electronics Engineering (EEE) at Jain Institute of Technology organized a plantation and tree adoption program for second-year students on 26th October 2024 at the JITD campus. The event aimed to promote environmental awareness and sustainability among students. The chief guest, Prof. Dr. Shekarappa B. Mallur, Professor at UBTCE Davanagere, graced the occasion and encouraged students to take responsibility for preserving nature. The Principal, Dr. Ganesh D. B., and Course Coordinator, Dr. Marulasiddappa H. B., addressed the gathering, emphasizing the importance of ecological balance. Faculty members and students actively participated in the program, making it a memorable and impactful event.

#### "STEPS THROUGH TIME: HERITAGE WALK TO FORT CITY"

23RD NOV 2024



On 23rd November 2024, a heritage walk to the historic Chitradurga Fort was organized by the Jain Institute of Technology, Davanagere. Led by faculty members Dr. Marulasiddappa H. B. and Mr. Dhanush S., second-year EEE students enthusiastically participated in the event. The walk aimed to foster a sense of social connection and responsibility while exploring the rich cultural and historical significance of the fort. Students engaged in discussions about heritage preservation and gained valuable insights into the architectural marvels of the site. The event successfully combined education with cultural awareness, leaving a lasting impact on all participants.

# "SERVICENOW - TRANSFORMING THE FUTURE OF SOFTWARE AS A SERVICE

23RD NOV 2024







On 23rd November 2024, the Forum Potenza of the EEE Department, in association with the JITD Alumni Association, organized a seminar on "ServiceNow - Software as a Service" at the Abdul Kalam EEE Seminar Hall, Jain Institute of Technology. The seminar featured two esteemed alumni, Ms. Anushree, Analyst - ERP Package Application at DXC Technology, Bangalore, and Ms. Bhanupriya, Network Security Engineer at Wipro, Bangalore, as resource persons. They shared their industry expertise on ServiceNow and its applications in ERP and network security. The event, coordinated by Dr. Chetan H. R., provided students with valuable insights into modern enterprise solutions and the evolving tech landscape.

# "A GLIMPSE INTO POWER DISTRIBUTION: STUDENTS VISIT KPTCL SUBSTATION"

23RD NOV 2024





















Forum Potenza organized an insightful industrial visit for the 3rd-year EEE students of Jain Institute of Technology to the 66/11kV Substation, KPTCL Avaragere, Davanagere. The visit, guided by Mr. Sanjay Kumar, Assistant Engineer at KPTCL, provided students with a practical understanding of power distribution and substation operations. Dr. Chetan H. R., Forum Coordinator, along with Mr. Sandeep Patil M.S., accompanied the students, ensuring a smooth and informative experience. The visit enhanced students' theoretical knowledge with hands-on exposure to real-world electrical infrastructure, making it a valuable learning opportunity for their academic growth.

## ETHNIC DAY AND KARNATAKA RAJYOTSAVA CELEBRATION AT JITD

18TH DEC 2024























Jain Institute of Technology, Davanagere, celebrated Ethnic Day and Karnataka Rajyotsava on 30th November 2024 with great zeal. The EEE Department embraced the theme "Namma Davanagere Namma Hemme," showcasing the region's rich culture through traditional attire, native dances, and a vibrant procession. Prof. Dhanush S., Cultural Coordinator, skillfully managed the event, while Dr. Santosh M. Nejakar, Head of the Department and Convenor, oversaw the celebrations. The event highlighted Karnataka's cultural pride and unity, creating a memorable experience for students and staff on the JITD campus.

## "INDUSTRIAL VISIT TO RENEWABLE ENERGY SITES AND GIS SUBSTATION"

18TH DEC 2024













On December 18th, 2024, the EEE Department of Jain Institute of Technology organized an enriching industrial visit for 1st-year students to explore renewable energy technologies. The students visited a 5MW Solar Plant and a 27MW Wind Mill at Kanavasahalli, Jagalur Taluk, gaining valuable insights into sustainable energy generation. Additionally, they explored the advanced KPTCL 400/200kV Gas Insulated Substation (GIS) at Mudlamachikere, Jagalur Taluk, which offered an understanding of modern substation operations and energy transmission. Dr. Preetha P. S. and Mr. Pradeep Kanavi, faculty members of the department, accompanied the students, ensuring a comprehensive learning experience. This visit provided a practical understanding of renewable energy sources and advanced electrical infrastructure, inspiring students to engage with sustainable technologies for the future.

#### **GRADUATION CEREMONY FOR THE BATCH OF 2024 AT JITD**

7TH DEC 2024







Jain Institute of Technology, Davanagere, hosted its Graduation Ceremony for the Batch of 2024 on 7th December 2024. The event was graced by Chief Guest Dr. Suresh H. Jagamshetty, Vice-Chancellor of Haveri University, and Mr. Sanjeev M. Bagewadi, Tech Lead at Pure Storage, Bangalore, who distributed graduation certificates to the outgoing students. The ceremony was attended by Dr. Ganesh D. B., Principal, and Dr. Manjappa Sarathi, Advisor of the institute, along with Dr. Santosh M. Nejakar, Convenor and Head of the EEE Department. The event celebrated the students' achievements, marking a significant milestone in their academic journey.

#### **SAMNAVAYA 2024-25: ALUMNI MEET AT JITD**

7TH DEC 2024









The JITD Alumni Association organized the Samnavaya 2024-25 Alumni Meet on 21st December 2024 at the institute's auditorium. The event was graced by Chief Guest Mr. Harsha N. S., Assistant Vice President, Reliance Jio Network, Bangalore, and an esteemed alumnus of the Electrical and Electronics Engineering Department. Alumni from various batches actively participated, rekindling memories and sharing their professional journeys. Prof. Praveena Annaji, Assistant Professor and Alumni Coordinator, efficiently managed the event. The Principal and Director, Dr. Ganesh D. B., Advisor Dr. Manjappa Sarathi, and Convenor and Alumni Association Secretary Dr. Nataraj, along with the faculty and staff, witnessed the gathering. The event fostered a strong connection between the alumni and the institute, emphasizing collaboration and continued growth.

## STUDENTS SECURE PLACEMENTS AT ATANDRA ENERGY PRIVATE LIMITED





The final-year students of the Electrical and Electronics Engineering department at Jain Institute of Technology have been successfully placed as Technical Engineers at Atandra Energy Private Limited, Bangalore. The Principal and Director, Dr. Ganesh D. B., congratulated the students on their achievement. The Head of Department, Mr. Santosh M. Nejakar, and the Dean of Placement, Dr. Prakash Walavalkar, commended their hard work and dedication. The department placement coordinator, Mr. Praveen Annaji, and the faculty members also played a pivotal role in guiding the students toward this success. The entire institution is proud of their accomplishment and wishes them a bright future ahead.

### FACULTY ACHIEVEMENTS

# CONGRATULATIONS TO PROF. MARULASIDDAPPA H B FOR SUCCESSFUL PH.D.

Prof.Marulasiddappa H B, Associate Professor, EEE department successfully completed Ph.D defence viva voce on 18th June 2024 on the topic "Design and Development of an Intelligent Controller based DTC for PMSM Drives in an Electric vehicle " under the guidance of Dr. Pushparajesh V, Jain University. Bangaluru



Prof. Marulasiddappa H B, Associate Professor, EEE department successfully completed Ph.D. defense viva voce



Prof. Chetan H R, Assistant Professor, EEE department successfully completed Ph.D defense viva voce

# CONGRATULATIONS TO PROF. CHETAN H R FOR SUCCESSFUL PH.D.

Prof Chetan H R, Assistant Professor, EEE department successfully completed Ph.D defence viva voce on the topic "A Novel based model for plant Ailment detection using machine Learning" under the guidance of Dr G S Rajappa, Co-Guide Dr.B R Srinivas. Srinivas University, Mangalore

## CONGRATULATIONS TO PROF. NANDISH B M FOR SUCCESSFUL PH.D.

Prof. Nandish B M, Assistant Professor, EEE department successfully completed Ph.D defence viva voce on 26th August 2024 on the topic "Design and simulation of intelligent IOT based ststem for improving micro grid efficiency " under the guidance of Dr. Pushparajesh V, Jain University. Bangaluru



Prof. Nandish B M, Assistant Professor, EEE department successfully completed Ph.D defense viva voce