

BMSCE IEEE PES & SENSORS COUNCIL

(SEN39/PE31)

Region-10

Sl. No	DATE	NAME OF EVENT
1.	5th-7th June 2024	VLSI Workshop
2.	12th- 14th June 2024	PES Day 2024 <ul style="list-style-type: none">● Evengers● Volt Victory● EnergyIQ● Game-a-thon● AI Prompt Hackathon● Think Tank● Evolve & Thrive● Pirates Plunder● Amp-Up-Forum● Electrothon● Fast and Curious● CTRL + ALT + CREATE● Eventure Pitch
3.	16th July 2024	Installation Of SAC
4.	27th September 2024	Induction Address
5.	8th October 2024	IEEE Edge 2.0
6.	29th October 2024	Engineers' Dream: Path to ISRO
7.	12th November 2024	Electrocute
8.	16th- 23rd November 2024	Sensors Week <ul style="list-style-type: none">● Sensors Enclave 2.0● Automateum 2.0: IoT Workshop● Sensors Design 2.0

		<ul style="list-style-type: none"> ● Embedded Systems Workshop ● Gas Sensors: Design and Implementation ● Pressure Sensors: Design and Fabrication
9.	5th- 6th December 2024	PhaseShift <ul style="list-style-type: none"> ● Hardware Hackathon ● LiFi – The Future of Data Transfer ● Volt Vision ● KiCad Kickstart
10.	23rd December 2024	SQUAD Orientation
11.	17th January 2025	Annual General Meeting
12.	9th March 2025	Plantation Drive 2.0
13.	17th March 2025	What it takes to be Women in Power
14.	15th-17th April 2025	PES Day 2025 <ul style="list-style-type: none"> ● Green Stocks Showdown ● Ai Bid And Build ● Cooper Station ● EcoFiesta ● Grid Quest ● Algothon ● SmartGrid ● The 7th Sense! ● The Energy Arena ● The Sun Chase ● WattWeb ● Quest To Eldoria(Flagship) ● The Fantastic 4s ● E-waste collection drive

		<ul style="list-style-type: none">• Wings of Code• Watt's the limit?
15.	5th-6th April 2025	Harnessing Data: Analysing, modelling and visualization
15.	9th-11th May 2025	Utsav 2025: Cookify

BMSCE IEEE Power & Energy Society and Sensors Council (PES & SC) is proud to present this **Annual Report**, covering activities from **June 2024 to May 2025** - a year marked by growth, innovation, and collaboration. Through workshops, technical sessions, and flagship events, we provided students with platforms to explore advancements in **power, energy, and sensor technologies**.

This report reflects our commitment to **technical excellence, professional development, and community engagement**. We thank our faculty, members, and partners for their continuous support and look forward to creating even greater impact in the coming year.

JUNE 2024:

VLSI Workshop

BMSCE IEEE Power & Energy Society (PES) and Sensors Council, in collaboration with IEEE Council on Electronic Design Automation (CEDA) Bangalore Chapter, organized an Internship Level 3-Day Value Added Course on Very-Large-Scale Integration (VLSI) design. The event, held from June 5th to 7th, 2024, aimed to enhance participants' understanding and skills in VLSI technology, covering topics from fundamental concepts to advanced design methodologies. Esteemed speakers from prominent engineering institutions led the sessions, providing invaluable insights into the field.



PES DAY 2024

"Sustainable mobility is not just about the environment, it's about creating a better quality of life for everyone." Technology is one of the tools in powering a Sustainable future, taking this a step ahead, BMSCE IEEE PES and Sensors Council celebrated the second part of their Flagship Annual Program, PES DAY 2024 on 12th, 13th, and 14th June with the theme "Empowering Electric Mobility Innovation."

14 events with nearly 500 enthusiastic participants were conducted in collaboration with twenty clubs of BMSCE, both cultural and technical, with a motive of bringing awareness on the importance of electrical vehicular mobility through events themed around sustainable mobility while thoroughly engaging the participants.

Event Name	Date and Time	Description
Evengers	12th June, 2:00PM- 4:00PM	A EV Car Building Competition
Volt Victory	12th June, 11:30AM- 1:30PM	A game event based on math and electrical engineering.
EnergyIQ	12th June, 2:00PM- 4:00PM	A trivia and mini ideathon
Game-a-thon	12th June, 11:30AM- 1:30PM	3 round game event including a debate based on electric mobility.
AI Prompt Hackathon	13th June, 11:00AM- 1:00PM	A Hackathon on Prompt Engineering with the fun twist of auction
Think Tank	13th June, 11:00AM- 1:00PM	A pitch and debate based on electric mobility and innovation.
Evolve & Thrive	13th June, 12:00PM- 2:00PM	A workshop on Electric Vehicle battery Innovation with AI
Pirates Plunder	13th June, 1:00PM- 5:00PM	A Fun Technical Event
Amp-Up-Forum	14th June, 11:00AM- 12:00PM	A workshop on Empowering Electrical Mobility
Electrothon	14th June, 1:30PM- 3:30PM	A Coding Based Event

Fast and Curious	14th June, 2:00PM- 4:00PM	An electric mobility based trivia game.
CTRL + ALT + CREATE	14th June, 11:15AM- 1:00PM	Web Design challenge
Eventure Pitch	14th June, 2:00PM- 4:00PM	An ideathon based on sustainable energy.



JULY 2024

INSTALLATION OF SAC

BMSCE IEEE PES and Sensors Council held their General Meeting to formally introduce their Student Activity Committee Members on the 16th of July 2024 at 4:30PM. Present at the event was Dr. Nethravathi, the branch advisor of BMSCE IEEE PES and Sensors Council and Dr. K.P Lakshmi, Chair Elect of Sensors Council.

The event, which started at 4.30pm, was hosted by Sahithi, Joint Secretary of the Chapter, who introduced the members one by one to Dr. Nethravathi and Dr. K.P Lakshimi . The members spoke briefly about themselves and were given a badge which contained the logo of the chapter and Id cards. The gathering was then addressed by Dr. Nethravathi who spoke to the students about working with the Executive Committee of the chapter and working for IEEE PES and Sensors Council.



SEPTEMBER 2024

INDUCTION ADDRESS

BMSCE IEEE Power and Energy Society addressed over 500 first-year students during the induction programme at BMSCE. Nandana and Kshitij D from the Student Activity Committee introduced the club, highlighting opportunities for networking, hands-on skill development, and industry connections that help students kick-start their technical and professional journeys.



OCTOBER 2024

IEEE EDGE 2.0

IEEE EDGE 2.0 2024 was a fun and interactive orientation event aimed at introducing students to the various IEEE chapters.

Our chapter, IEEE PES & Sensors Council, collaborated with IEEE PELS and IES to make the event a success. Manish introduced our chapter, while members like Shishir, Lohit, and others kept the session lively and engaging.

We also conducted icebreaker games, including the popular "Toss the Mic," encouraging participants to share ideas and stories in a relaxed setting.

Overall, IEEE EDGE 2.0 helped students connect with the IEEE community and build excitement for future activities.



ENGINEERS' DREAM: PATH TO ISRO

On 29th October 2024, the BMSCE IEEE PES & Sensors Council, along with BMSCE IEEE WIE, hosted a tech talk titled "Engineers' Dream: Path to ISRO" featuring Smt. Subhalakshmi Krishnamoorthy, Senior Scientist at ISRO.

She shared her journey, insights into ISRO's work culture, and explained satellite and communication technologies. The session ended with an interactive Q&A, leaving students inspired and informed about careers in space technology.



NOVEMBER 2024

ELECTROCUTE - IEEE WEEK 2024

Electrocute 2024 was a technical competition and workshop held during IEEE Week, organized in collaboration with BMSCE IEEE PES & Sensors Council. It featured three engaging rounds: a quiz on basic electronics, a reverse engineering challenge to deconstruct circuits, and an Arduino task where participants built a robot to play the Chrome Dino game. The event combined learning with hands-on experience, encouraging creativity and problem-solving in a fun, competitive environment.



SENSORS WEEK 2024

Sensors Week 2024, organized by BMSCE IEEE PES & Sensors Council, took place from 16th to 23rd November. The week was packed with a diverse range of events aimed at fostering knowledge and hands-on experience in the field of sensors and embedded systems. It featured two webinars, three workshops, and a 24-hour hackathon, providing participants with both theoretical insights and practical exposure. The Sensors Enclave 2.0 hackathon challenged participants to develop innovative sensor-based solutions within 24 hours, pushing their creativity and problem-solving skills. The workshops, including Automateum 2.0: IoT Workshop, Sensors Design 2.0, and the Embedded Systems Workshop, offered students hands-on experience in IoT development, sensor system design, and embedded technology. Additionally, the webinars on Gas Sensors: Design and Implementation and Pressure Sensors: Design and Fabrication provided expert-led insights into real-world sensor applications and trends in sensor technology. The combination of these events created a comprehensive learning experience, helping participants build technical skills while exploring the vast applications of sensor technology.



DECEMBER 2024

PHASESHIFT 2024

BMSCE IEEE PES & Sensors Council conducted four major events. The central event was a 24-hour Hardware Hackathon, organized in collaboration with the IEEE Bangalore Section, where participants built innovative hardware solutions under time constraints. We also hosted a workshop titled "LiFi – The Future of Data Transfer," introducing students to the emerging field of light-based wireless communication. Volt Vision, a sustainable energy solution competition, encouraged participants to propose practical and creative ideas for clean energy challenges. Additionally, KiCad Kickstart, a workshop on PCB design using CAD tools, provided hands-on training in circuit design and fabrication.



SQUAD ORIENTATION

BMSCE IEEE PES & Sensors Council hosted SQUAD, an orientation event designed to introduce new members to IEEE and the chapter's activities. The session covered the chapter's history, achievements, and upcoming initiatives, while also introducing the Execom and SAC members to the participants. Students learned about various events, workshops, and ways to contribute through volunteering, marketing, design, content creation, and logistics. The event also launched SPARKS, a collaborative project initiative aimed at fostering innovation. To make the session interactive, games like Movie Trivia and Never Have I Ever were conducted, and a Club Life video gave attendees a glimpse into the vibrant IEEE community. Despite lower-than-expected attendance due to exams, the event was engaging and left participants excited for the year ahead. The open and informal discussions created a welcoming atmosphere, and the council looks forward to more collaborative efforts in the future.



JANUARY 2025

ANNUAL GENERAL MEETING 2025

The Annual General Meeting of BMSCE IEEE PES & Sensors Council celebrated the achievements of the outgoing Executive Committee and welcomed the newly elected team for 2025-26. The event began with a lighting ceremony, followed by a welcome note from Ms.

Chinmayee S Bharadwaj, Secretary 2025.

Dignitaries including Smt. Netravathi, Dr. K. P. Lakshmi, and Dr. Bhanu Prakash addressed the gathering, motivating members to continue striving for excellence.

The Annual Report by Ms. Bommireddy Neha and Financial Report by Mr. S Danush showcased the council's accomplishments and financial transparency.

The event concluded with the handover ceremony, where outgoing Chairperson Ms. Gurrala Naga Pragnathmik introduced the new Executive Committee, marking the start of a new chapter for the council.

Pratham Ganapathy, outgoing Senior SAC delivered the Vote of Thanks



MARCH 2025

PLANTATION DRIVE 2.0

In celebration of PES Day 2025, BMSCE IEEE PES & SC, in collaboration with Adamyia Chetana, organized a Plantation Drive to promote environmental sustainability. With 25 participants from BMSCE, the team planted trees and attended awareness sessions on afforestation, climate change, and eco-friendly practices. The event was graced by Ms. Tejaswini Kumar, reinforcing the shared vision of building a cleaner, greener future—one tree at a time.



WHAT IT TAKES TO BE WOMEN IN POWER

BMSCE IEEE PES & SC, in collaboration with IEEE PES Women in Power Region 10 and BMSCE WIE, hosted an inspiring session titled "What it Takes to Be Women in Power" on the occasion of Women's Week 2025. The event featured distinguished speakers Dr. Kumudhini Ravindra and Sandhya RJ, who shared their experiences and insights on career opportunities in the power industry and the evolving landscape of the future of work. Held at Audi 2, BMSCE, on March 17, 2025, the session provided attendees with valuable knowledge about the power sector, industry trends, and guidance on excelling in their careers.



APRIL 2025

PES DAY 2025

IEEE PES Day 2025 celebrations at BMS College of Engineering brought together students, faculty, and energy enthusiasts for three days of learning, collaboration, and innovation. The event began with a traditional lamp lighting ceremony, symbolizing the pursuit of knowledge and a sustainable future. The theme, “Clean Energy. Smart Grids. Better Lives.”, set the tone for the activities, focusing on promoting clean energy solutions and smart grid technologies.

BMSCE IEEE PES & Sensors Council, in collaboration with various clubs, organized over 15 events, including workshops, seminars, competitions, and interactive sessions. These events provided opportunities for participants to engage in technical learning while raising awareness about sustainable energy practices.

The closing ceremony featured performances by Paramvah, DanzAddix, The Groovehouse, and Ninaad, adding a cultural touch to the technical celebration. A summary of the three days highlighted the success of various initiatives, from expert sessions to hands-on competitions. Winners were recognized for their innovative ideas and contributions.

With enthusiastic participation and collaborative efforts, PES Day 2025 at BMSCE stood as a successful celebration of engineering, leadership, and sustainability, inspiring students to contribute towards a cleaner, smarter energy future.



1. GREEN STOCKS SHOWDOWN

BMSCE IEEE PES & Sensors Council in collaboration with Business Insights successfully organized Green Stocks Showdown – a unique, finance-based event centered around ethical and sustainable investing. Designed to combine fun with financial literacy, the event challenged participants to make smart investment decisions through an engaging simulation of the stock market, promoting the core themes of sustainability and ethical business practices.



2. AI BID AND BUILD

The BMSCE IEEE PES & Sensors Council, in collaboration with the TEAMCODELOCKED, hosted AI bid and build — which is not just a coding challenge but also a battle of brains and strategy with the goal of making clean energy a part of everyday life. Centred around the theme of Empowering The Future with Clean Energy,

AI bid and build challenged participants to design a software solution or an AI tool which would help individuals and communities adopt clean energy in their daily routines, without requiring hardware.



3. COOPER STATION: A COSMIC IDEATHON

On account of PES Day 2025, BMSCE IEEE PES & Sensors Council in collaboration with Singularity - The Astronomical Society of BMSCE, our event was COOPER STATION—a unique cosmic Ideathon where ideas shape the future of humanity.



4. ECOFIESTA

On account of PES Day 2025, BMSCE IEEE PES & Sensors Council in collaboration with BMSCE IEEE SSIT had hosted an event called “EcoFiesta”. The event aimed to raise awareness about the importance of renewable and sustainable energy sources. Participants engaged in a series of challenges, each designed to stimulate creative

thinking, problem-solving and seeking knowledge. This event was conducted in 5 different rounds. It had a prize pool of 1000/-.



5. GRID QUEST

The BMSCE IEEE PES and Sensors Council, in collaboration with the ISE Student Club, organized Grid Quest—a strategic, simulation-based board game event. Designed to mirror the challenges of real-world energy management, the game tasked participants with acquiring and operating power plants, navigating energy markets, and responding to dynamic policy changes. The event provided an engaging platform for students to explore the balance between profitability and sustainability in the power sector.



6. ALGOTHON

The BMSCE IEEE PES & Sensors Council, in collaboration with the BMSCE ACM Student Chapter, hosted ALGOTHON — a high-impact, fast-paced coding competition with a mission: code for a cleaner, greener tomorrow. Centered around the theme of Green Energy and Sustainability, ALGOTHON challenged participants to solve algorithmic problems that simulated real-world issues tied to renewable energy, efficient resource utilization, and sustainability-focused computing.



7. SMARTGRID: SIMULATION WITH MATLAB

BMSCE IEEE PES & Sensors Council in collaboration with IEEE PELS, join us for an engaging hands-on workshop ‘SmartGrid ‘ which focuses on Energy-Saving Techniques using MATLAB! This session introduces participants to the fundamentals of energy optimization, exploring how MATLAB can be applied to design and simulate energy-efficient solutions across various domains — from homes to industrial systems.



8. THE 7TH SENSE!

BMSCE IEEE PES & Sensors Council in collaboration with CorTechs organised a sensor integrated ideathon. The participants were given a set of problem statements. They had the liberty to choose the problem to work on. They were given 1.5 hours of time to research their idea. Each team was given 5 minutes to present their idea to the resource persons. The presentation was followed by a question and answer session. The scoring criteria was based on feasibility, impact, sustainability and cost effectiveness.



9. THE ENERGY ARENA

BMSCE IEEE PES & Sensors Council in collaboration with BMSCE IEEE ComSoc hosted the Energy Arena. This event focused on fostering awareness and skills about sustainable energy solutions among students and professionals with fun rounds in the event. This unique event featured two engaging rounds designed to stimulate creativity and problem-solving among participants.



10. THE SUN CHASE

BMSCE IEEE PES & Sensors Council in collaboration with IEEE SPS successfully organized The Sun Chase, an exciting online treasure hunt themed around solar energy. This intellectually stimulating event put participants' problem-solving and critical thinking skills to the test as they raced against time to crack clues, solve challenges, and uncover hidden treasures — all while exploring the fascinating world of solar power. Through a series of engaging tasks rooted in renewable energy and sustainability, The Sun Chase aimed to raise awareness about solar energy in a fun, interactive, and competitive format.

11. WattWeb

the BMSCE IEEE PES & Sensors Council in collaboration with the BMSCE IEEE Computer Society, presents Wattweb - a dynamic web development event focused on teaching participants how to host websites for free. The session introduces key web development skills and culminates in an engaging website design competition that allows attendees to apply what they've learned in real time.



12. QUEST TO ELDORIA

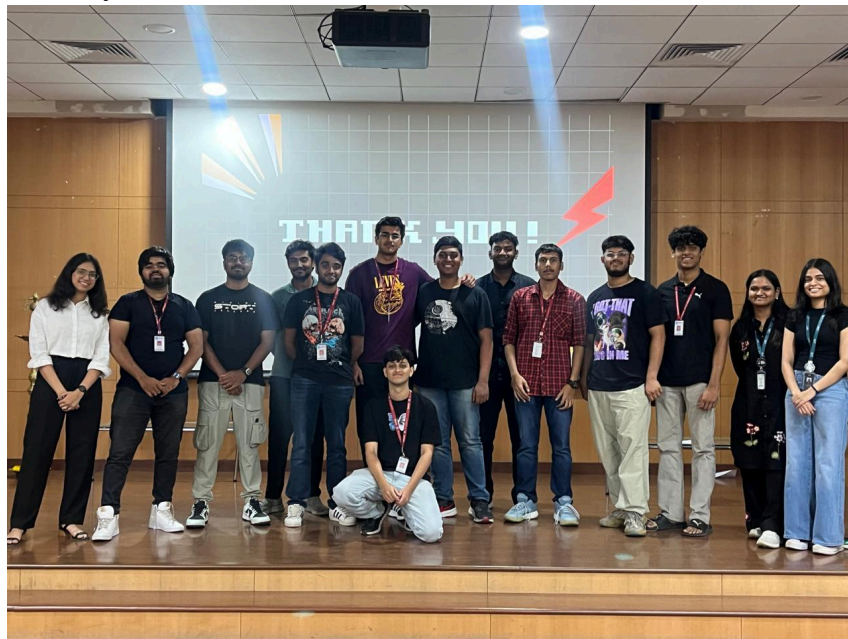
BMSCE IEEE PES & Sensors Council hosted the flagship event, Quest to Eldoria. A multifaceted team competition designed to challenge participants across a spectrum of skills. The initial round tests teams through a series of diverse physical and mental challenges, requiring them to demonstrate dexterity, coordination, accuracy, and precision as they rotate through various stations to accumulate points. The focus then shifts in the subsequent rounds, moving into the realm of cognitive and strategic abilities. Round two presents teams with intricate encryption and decoding tasks, demanding swift and accurate deciphering of messages and word construction. Round three escalates into a complex adventure involving navigation through checkpoints, completion of varied quests, and a final code-breaking challenge, testing their problem-solving, adaptability, and teamwork under pressure. Culminating the Quest to Eldoria is a strategic showdown where teams engage in a final card game, utilizing information and skills acquired throughout the competition to vie for ultimate victory. This final stage adds an element of direct competition and strategic decision-making, requiring teams to analyze their opponents and make calculated moves. The combination of diverse challenges and the progressive structure of the event ensures a comprehensive test of participants' abilities



13. THE FANTASTIC 4R'S

BMSCE IEEE PES & Sensors Council, in collaboration with the BMSCE Quiz Club(QCaine), successfully hosted a vibrant and engaging quiz event. The competition featured four thrilling rounds of increasing difficulty, packed with questions on modern-day comics, entertainment, and pop culture. Participants battled it out through clever puzzles, buzzer challenges, and rapid-fire questions. The event was filled with fun, excitement, and enthusiastic participation, making it a memorable celebration of knowledge and teamwork.

The event sparked curiosity and enthusiasm among students, drawing large participation and boosting engagement with both technical and cultural communities. It fostered collaboration, quick thinking, and a fun learning environment beyond the classroom.



14. E-WASTE COLLECTION DRIVE

BMSCE IEEE PES & Sensors Council in collaboration with Rotaract Club of BMSCE organized a 3-day E-Waste Collection Drive to promote responsible disposal and recycling of electronic waste. This drive provided students and staff with a platform to discard unused or broken electronic devices in an environmentally conscious manner. The event took place near PJ Block, opposite Audi 1, from 10 AM to 4 PM daily. It was a community-focused initiative led by Rtr. Chinmayee and Rtr. Hemanth Sagar, with support from both clubs. The drive created awareness about e-waste management and encouraged eco-conscious behavior among students and faculty. Though small in scale, it demonstrated a commitment to sustainability and responsible recycling. It also fostered collaboration between student organizations to work toward common environmental goals.

15. WINGS OF CODE

BMSCE IEEE PES & Sensors Council in collaboration with BMSCE IEEE SB organized an insightful technical session titled “*Wings of Code: Simulating UAVs Using SITL*”. The session was conducted by Mr. Samartha S, founder of Protonetix Private Limited. The speakers began by introducing the basics of SITL (Software In The Loop) and discussed the fundamental coding languages used for drone simulation. They also explained the physics and mathematical principles behind drone flight. The session further covered the installation of Ubuntu OS and SITL software integration. Attendees were shown live demonstrations of drone operations, including automation techniques where drones could autonomously return to their original location if power runs low.



16. WATT’S THE LIMIT

BMSCE IEEE PES & Sensors Council, in collaboration with Pentagram, proudly organized Watt’s the limit – a uniquely curated event that blended the worlds of mathematics and electricity into a fun and intellectually stimulating challenge. A fusion of mathematical logic, electrical engineering principles, and strategic thinking. Promoted real-time problem-solving through visual, conceptual, and investment-based challenges. Encouraged creativity and performance, with participants even showcasing

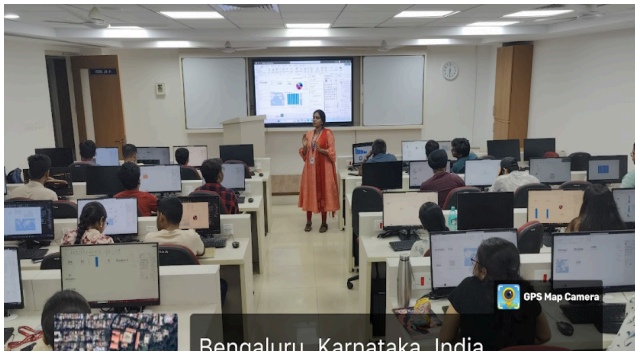
acting skills during select rounds to present ideas or clues.

Reinforced understanding of key electricity concepts like Ohm's Law, resistor combinations, and power calculations. Sharpened analytical, mathematical, and logical reasoning skills. Broadened general knowledge about historic figures in science and mathematics. Fostered smart investing habits, drawing parallels between analytical thinking and financial decision-making.



HARNESSING DATA: ANALYSING, MODELLING AND VISUALISATION

The Department of Computer Science and Engineering (Data Science), BMS College of Engineering, in collaboration with BMSCE IEEE Power and Energy Society (PES) and Sensors Council, successfully organized a 30-hour Value Added Course (VAC) titled "*Harnessing Data: Analysing, Modelling and Visualisation*". This course was meticulously designed with an aim to equip students, especially from circuit branches, with fundamental and applied knowledge in the domains of Database Management Systems (DBMS), Big Data, Machine Learning (ML), and Data Visualisation. The course witnessed an overwhelming response with over 100 registrations, out of which 50 students were selected through a screening test. These students engaged in an intensive, hands-on learning experience led by domain experts and faculty members. The inaugural session was held on 5th April 2025, graced by Dr. Bhemsha Arya, Principal of BMSCE, who officially launched the VAC with an inspiring address. Following the ceremony, participants began the first technical session. The valedictory session, marking the culmination of the course, was held on 6th May 2025. The event was presided over by Dr. L. Ravikumar, Vice Principal (Academic), who addressed the gathering and awarded certificates to all participants, faculty, and staff. Dr. Shambhavi P., Head of Department, CS (Data Science), also shared her insights. The final day concluded with snacks and a comprehensive session on Power BI, emphasizing practical data visualization skills.



MAY 2025

UTSAV 2025

As part of Utsav 2025, BMSCE IEEE PES & Sensors Council hosted Cookify, a Cooking Without Fire competition that blended creativity with culinary skills. The event was judged by renowned food entrepreneurs Mr. Venkatesh Acharya, owner of Schezwan Dragon, and Mr. Shri Harsha, owner of Toast Master's Café, who evaluated the dishes based on innovation, presentation, and taste. The event provided a fun and engaging platform for participants to showcase their cooking talents in a safe, fire-free environment.

