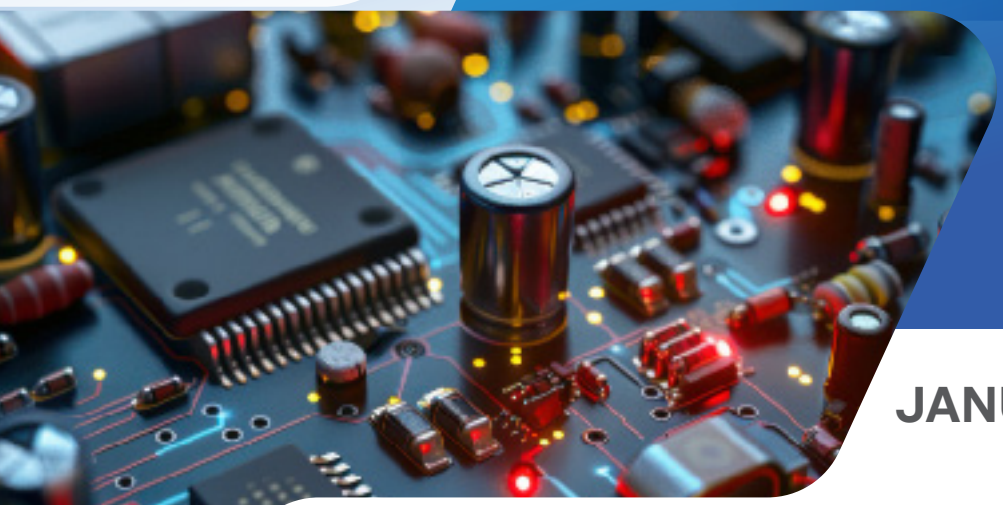
NEW HORIZON
COLLEGE OF ENGINEERING

Department Of
Electrical and Electronics Engineering

SPRING TRONICALS



JANUARY – JUNE 2024

INDEX

Message from Chairman

Dr. Mohan Manghnani
Chairman
New Horizon Educational Institutions

I am delighted to share my insights for the biannual EEE magazine. The Department of Electrical and Electronics Engineering has consistently stood out as one of the most dynamic and engaging departments in our Institute, a source of immense pride over the years. Our Institute has been experiencing notable reforms in curriculum updates and course structures. The EEE Department has enthusiastically embraced these changes, anticipating their positive impact on our students. The new course plans have been rolled out for some senior undergraduate years, as well as the first years. We look forward to receiving feedback to ensure we are heading in the right direction. It is always heartening to witness students express their creativity and hidden talents in various ways, and this magazine serves as an excellent platform for the students of our Department to do so. Additionally, it acts as an ideal medium for faculty and students to share technical articles, showcasing their areas of research. Wishing everyone the very best.

Message from Principal

Dr. Manjunatha
Principal, NHCE

At New Horizon College of Engineering, we recognize the critical need to go beyond the traditional curriculum to equip our students with the essential skills for industry success. Recent feedback from industry professionals has pointed out a troubling trend: many engineering graduates lack the employability skills needed to thrive. New Horizon College of Engineering has always been dedicated to addressing this challenge, working diligently to ensure our students are thoroughly prepared for the demands of the job market. I am pleased to share a few words as an introduction to the latest edition of the EEE department's in-house magazine, "Spring Tronicals". This edition has been meticulously curated to highlight a range of events and technical articles, making it an invaluable resource for our readers. I extend my heartfelt congratulations to all the contributors and the esteemed editorial board for their dedication in producing this outstanding magazine. I hope you find joy and enlightenment as you delve into the pages of this edition.

Message from HoD-EEE

Dr. Sakthivel Aruchamy
Prof. & HOD EEE, NHCE

I am thrilled to share my perspectives for the biannual EEE magazine, "Spring Tronicles 2024." The Department of Electrical and Electronics Engineering has consistently upheld its reputation as one of the most dynamic and vibrant departments within our esteemed Institute, filling us with immense pride over the years. As an institution, we have been undergoing significant reforms in curriculum updates and course structures. The EEE Department has wholeheartedly embraced these changes, firmly believing they will benefit our students. The implementation of new course plans extends not only to first-year students but also to senior undergraduate years. We eagerly anticipate feedback to ensure we are moving in the right direction. It is truly gratifying to see our students showcase their creative and hidden talents in diverse forms, and this magazine serves as the perfect platform for highlighting the exceptional abilities of our department's students. Additionally, it provides an excellent medium for faculty and students to share technical articles, facilitating the exchange of knowledge within their respective research domains. I extend my sincerest wishes for the success of this endeavor.

NEW HORIZON COLLEGE OF ENGINEERING

VISION

To emerge as an institute of eminence in the fields of engineering, technology and management in serving the industry and the nation by empowering students with a high degree of technical, managerial and practical competence.

MISSION

To strengthen the theoretical, practical and ethical dimensions of the learning process by fostering a culture of research and innovation among faculty members and students.

To encourage long-term interaction between the academia and industry through their involvement in the design of curriculum and its hands-on implementation.

To strengthen and mould students in professional, ethical, social and environmental dimensions by encouraging participation in co-curricular and extracurricular activities.

QUALITY POLICY

To provide educational services of the highest quality both curricular and co-curricular to enable students integrate skills and serve the industry and society equally well at global level.

VALUES:

• Academic Freedom • Integrity • Inclusiveness • Innovation • Professionalism
• Social Responsibility

ABOUT DEPARTMENT

Welcome to the Department of Electrical & Electronics Engineering (EEE) at New Horizon College of Engineering (NHCE), Bangalore. EEE is one of the prestigious branches of Engineering and one among the oldest departments of NHCE-Bangalore started in 2001. The EEE Department has been playing a vital role in producing engineers and technologists of high caliber ever since it was established in the year 2001. The Department is accredited by NAAC with 'A' Grade and accredited by NBA. The vision of EEE Department is to create contemporary Engineers, innovators and entrepreneurs to make a better nation and in turn, a better world. A critical investigation and innovation into the modern state-of-art and cutting edge technology lead to the fact that an electrical graduate fits better in today's competitive world.

The strength of the department is highly qualified faculty members with expertise in various fields of electrical engineering, state of art laboratory facilities. The department is inclined towards bridging the gap between Industry and academia by collaborating with Multinational Companies in the field of Electrical Engineering.

Indo-French Center of Excellence in Electricity, Automation and Energy (IFCEEAE) is one such initiative evolved through "MoU" with French Ministry of National Education and Schneider Electric India Pvt. Ltd., The main objectives of IFCEEAE are

- To train the students of all streams of engineering in automation field
- To facilitate interdisciplinary and applied research with a focus on innovative product development
- To provide excellent career opportunities to students through exchange programs with French Universities, industrial training, innovative learning and R & D activities especially in the areas like Smart Grid, Internet of things (IoT), Energy Management Systems, Embedded systems, Supervisory Control and Data Acquisition (SCADA) and industrial automation.

The Department nurtures the young minds beyond the curriculum by facilitating technical clubs in promoting technical events, community development/society impact and universal value/ethics programs. In supporting to this, Department of Electrical and Electronics Engineering has established Institute of Electrical and Electronics Engineers (IEEE) – Power Electronics Society (PELS) Student Branch Chapter (Geo-Code: SBC66131). Industrial Electronics Society (IES) Student Branch Chapter (Geo-Code: SBC66131B) which is the non- profitable, world largest technical professional organization for the advancement of technology. The students have a greater exposure and flexibility in campus placements in core industries, IT sectors and Public Sector Units (PSU).

VISION

To evolve into a centre of excellence in Electrical and Electronics Engineering for bringing out contemporary engineers, innovators, researchers and entrepreneurs for serving nation and society.

MISSION

To provide suitable forums to enhance the teaching-learning, research and development activities.

Framing and continuously updating the curriculum to bridge the gap between industry and academia in the contemporary world and serve society.

To inculcate awareness and responsibility towards the environment and ethical values.

Program Outcomes (POs)

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems in Electrical and Electronics Engineering.

PO2: Problem analysis: Identify, formulate, review research literature, and analyse complex engineering problems in Electrical and Electronics Engineering reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design / Development of Solutions: Design solutions for complex engineering problems and design system components or processes of Electrical and Electronics Engineering that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments in Electrical and Electronics Engineering, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities in Electrical and Electronics Engineering with an understanding of the limitations.

PO6: 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 in Electrical and Electronics Engineering.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions of Electrical and Electronics Engineering in societal and environmental contexts, and demonstrate the knowledge of and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9:Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication Skills: Communicate effectively on complex 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.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the 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.

PO12: 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 EDUCATIONAL OBJECTIVES (PEOs)

PEO1: To provide good learning environment to develop entrepreneurship capabilities in various areas of Electrical and Electronics Engineering with enhanced efficiency, productivity, cost effectiveness and technological empowerment of human resource.

PEO2: To inculcate research capabilities in the areas of Electrical and Electronics Engineering to identify, comprehend and solve problems and adopt themselves to rapidly evolving technology.

PEO3: To create high standards of moral and ethical values among the graduates to transform them as responsible citizens of the nation.

PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1: Graduates will be able to solve real life problems of Power system and Power Electronics using MiPower, PSPICE and MATLAB software tools and hardware.

PSO2: Graduates will be able to develop and support systems based on renewable and sustainable Energy sources.

Editorial Team

Satishkumar D (NH-0200)
Senior Assistant Professor
EEE Department, NHCE

Student Coordinators

R GAGANA
1NH22EE085

SUPRITHA.K
1NH22EE112

RAJ SINGH
1NH22EE088

Nayan
1NH22EE071

Roshan
1NH22EE093

Shreyas R srinivas
1NH22EE104

Shatakshi patnaik
1NH22EE098

Veeresh Doddamani
1NH22EE122

V BHARGAV
1NH22EE121

Preetham Raj S
1NH22EE081

Sahana Pattar
1NH22EE095

Rani Gupta R
1NH22EE090

CLUB ACTIVITIES

Empowering Control: Navigating the Future with HMI and SCADA Excellence
Date:- 08.02.2024

Mekala Rohith Kumar Reddy, an Electrical Design Engineer based in Anantapur, Andhra Pradesh. He has completed his graduation from New Horizon College of Engineering in 2023. His technical toolkit includes C, Python, LabVIEW, and Simulation, coupled with outstanding soft skills. In project highlights, he integrated LabVIEW, Arduino, and a dynamic GUI for real-time motor control and engineered 'Quad Bike for Physically Challenged'. He has published papers in IEEE conferences, holds two patents, and received recognition from the Karnataka State Council of Science and Technology. With an internship at Capgemini, Bengaluru, and currently works at Schneider Electric, Bengaluru, Rohith navigates advanced digital engineering and electrical design. In essence, Mekala Rohith Kumar Reddy is an accomplished Electrical Design Engineer, a problem solver, and a trailblazer in the engineering landscape.

A technical workshop based on HMI and SCADA is a training session that aims to teach the participants the fundamentals and applications of human-machine interface (HMI) and supervisory control and data acquisition (SCADA) systems in industrial automation. HMI and SCADA are two related but distinct concepts that enable human operators to interact with, monitor, and control machines and processes remotely.

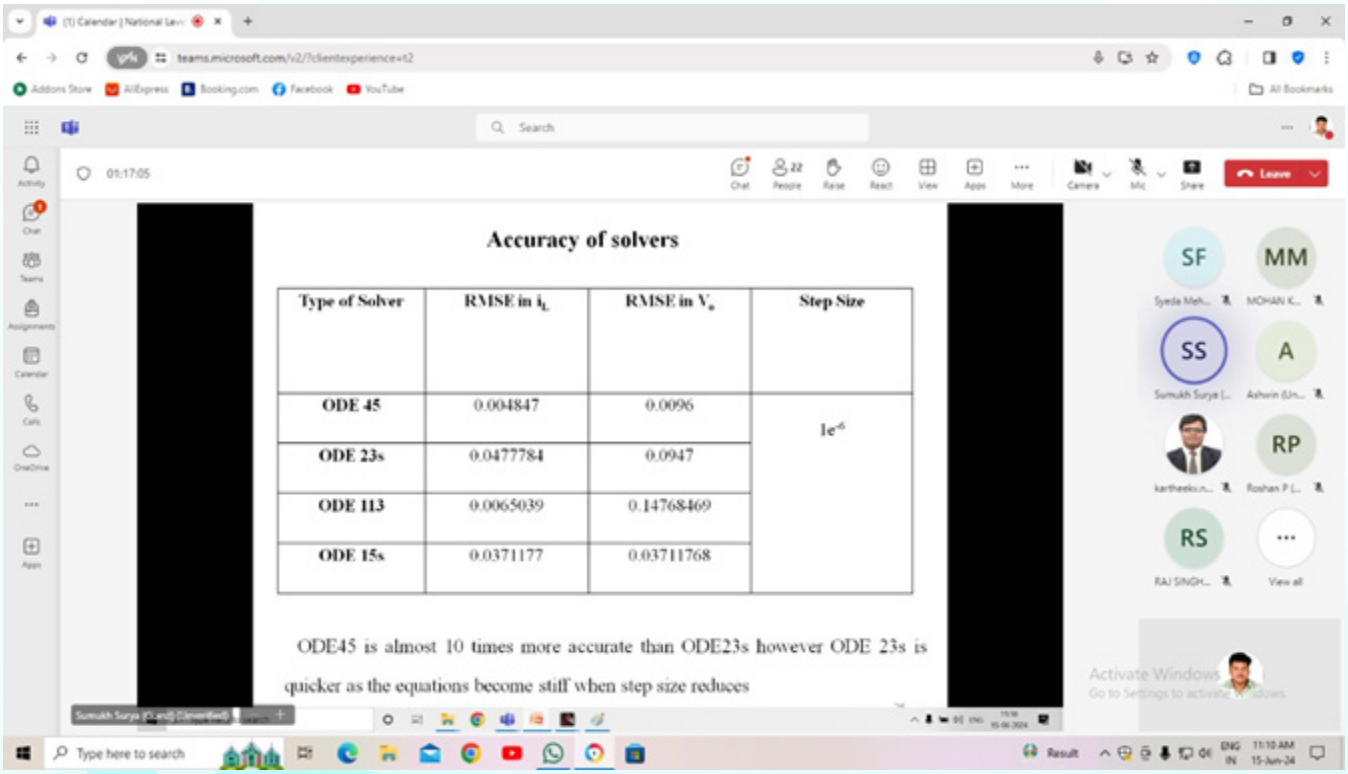
Green Energy Club - Co-Curricular Club Presents " A Technical Workshop on IDEA TO IMPACT
Date:- 14.05.2024

The primary objective of the workshop was to provide an in-depth understanding of the process, challenges, and rewards of creating a successful sustainability startup. The presenter, Meenakshi B, Co-founder & Marketing Lead of EETA, shared the story of her startup, which focuses on solving the food waste problem, making the poultry and aquaculture industry; greener and promoting sustainability. The insights shared by her regarding EETA's achievements, such as being selected as one of the top 30 finalists in the Carbon Zero Challenge 2022, inspired the audience with the necessary knowledge and resources to embark on their own sustainable entrepreneurship journey.

Some of the key takeaways of this workshop were: Introduction to EETA Measuring Sustainability: The speaker provided a framework for quantifying the environmental impact of a Product service including energy savings, reduction of natural resource usage, pollution removal, and extended shelf life. Electrical Engineering for Sustainability: The critical role of electrical engineering in sustainability was also highlighted, covering topics such as renewable energy, energy efficiency, and waste-to-energy solutions. Product Development Flow: A comprehensive guide to the ideal product development flow was shown, from idea generation, MVP creation to customer feedback and growth. Incubators and Support: The speaker emphasized the importance of incubators and support systems in the startup world, providing information on available grants, funding, and resources. Learning Resources: The workshop concluded by listing valuable books and resources for those interested in learning more about startups, sustainability, and entrepreneurship.

WORKSHOPS

Workshop on Modeling and Simulation of Electrical Networks using Scilab
Date: - 15.06.2024



The primary objective of the workshop was to provide an in-depth understanding of the process, challenges, and rewards of creating a successful sustainability startup. The presenter, Meenakshi B, Co-founder & Marketing Lead of EETA, shared the story of her startup, which focuses on solving the food waste problem, making the poultry and aquaculture industry; greener and promoting sustainability. The insights shared by her regarding EETA's achievements, such as being selected as one of the top 30 finalists in the Carbon Zero Challenge 2022, inspired the audience with the necessary knowledge and resources to embark on their own sustainable entrepreneurship journey.

Some of the key takeaways of this workshop were: Introduction to EETA Measuring Sustainability: The speaker provided a framework for quantifying the environmental impact of a Product service including energy savings, reduction of natural resource usage, pollution removal, and extended shelf life. Electrical Engineering for Sustainability: The critical role of electrical engineering in sustainability was also highlighted, covering topics such as renewable energy, energy efficiency, and waste-to-energy solutions. Product Development Flow: A comprehensive guide to the ideal product development flow was shown, from idea generation, MVP creation to customer feedback and growth. Incubators and Support: The speaker emphasized the importance of incubators and support systems in the startup world, providing information on available grants, funding, and resources. Learning Resources: The workshop concluded by listing valuable books and resources for those interested in learning more about startups, sustainability, and entrepreneurship.

Workshop on Intellectual Property Rights (IPRs) and IP Management for Startup
Date: 06.05.2024

Institution Innovation Council in Association with Department of Electrical and Electronics Engineering had organized one day workshop on "Intellectual Property Rights (IPRs) and IP Management for start up" on 06.05.2024 at Tejas Seminar, Hall, New Horizon College of Engineering, Bengaluru. The speaker Dr N Nagarajan, Technical Director, Lead Patent Analyst, NSKD Techno research and Innovation, Dhramapuri emphasized on Intellectual Property (IP) as a critical asset for startups, often forming the foundation of their competitive advantage, to protect their innovations, attract investors and avoid legal pitfalls.

Workshop on Strategies of Servomotor Design and Control
Dates: 07.06.2024 to 08.06.2024

The National Level Skill Development Programme on Strategies of Servomotor Design and Control, under the auspices of the MHI-PSG Industry Accelerator Project, was a dynamic and intensive two-day workshop hosted at New Horizon College of Engineering. This event, aimed at bridging the gap between academic learning and industry requirements, brought together a diverse group of participants, including students, faculty, and industry professionals. The workshop delved deeply into the intricacies of servomotor design and control, a pivotal area in the field of automation and robotics. It featured a series of expert-led sessions that provided a thorough grounding in both theoretical frameworks and practical applications. Topics covered included the fundamentals of servomotor technology, advanced design strategies, control mechanisms, and real-world applications. Participants engaged in hands-on sessions that allowed them to apply learned concepts in a controlled environment, enhancing their practical skills and understanding. These interactive sessions were designed to simulate real-world challenges, encouraging innovative problem-solving and critical thinking. In addition to technical knowledge, the workshop facilitated networking opportunities, fostering collaboration between academia and industry. This interaction aimed to drive forward-looking initiatives and innovations in servomotor technology. The MHI-PSG Industry Accelerator Project's involvement underscored the importance of industry-academic partnerships in driving technological advancements and preparing the workforce for future challenges.

EXPERT TALKS/GUEST LECTURES

Expert Talk on Design Thinking: Human-Centred Approach to innovation

Date: 11.01.2024

On January 11, 2024, the IEEE PELS NHCE SBC organized a special talk at Tejas Seminar Hall on Workshop titled " Human-Centred Approach to innovation" in association with IEEE PELS Bangalore Section Chapter. The speaker is Dr. Chinnu Nallathambi, Founder of Brain Alchemy Technology Co-Founder of Brain Magic Academy and a WHO-endorsed Life Skill Trainer. Mr. Nallathambi passionately discussed how understanding and harnessing the power of the subconscious mind can be directly linked to fostering innovation. He explained how our subconscious mind, often operating beneath our conscious awareness, plays a crucial role in shaping our thoughts, ideas, and problem-solving abilities. By exploring the depths of the subconscious, attendees gained insights into how it can be a wellspring of creativity and innovation. The absence of traditional slides made the session engaging, encouraging students to share their thoughts openly. Mr. Nallathambi's message was clear – everyone has incredible abilities within them. The talk wasn't just a lecture; it was an exciting journey into the power of human potential and the importance of a supportive learning environment. In the end, students left inspired, ready to embrace their own abilities, and face challenges with a positive and adaptable mindset. The event showcased the Innovation Club's dedication to promoting a dynamic learning culture, making it a memorable and impactful experience for all. The eminent expert from the industry delivered the lecture and his talk has been very well received by the 82 participants.

Modern Trends in Electrical Protection and Transmission and Distribution
Date:- 17.01.2024

The Department of Electrical and Electronics Engineering of IEEE PES NHCE SBC, New Horizon College of Engineering had organized a Guest Lecture on “Modern Trends in Electrical Protection and Transmission and Distribution” in association with IEEE PES Bangalore Chapter on 19.01.2024 Friday from IST 9:00 AM to 11:00 AM. The session was handled by Mr. Vinoth Kumar S Senior Lead, Electrical P and C Design Engineer WPS Consultant India Private Limited. The outcome of the programme was to facilitate exchanging and sharing the knowledge about the various methodologies in transmission, the importance of high voltage transmission and the various protection devices such as relays, circuit breakers used across the transmission lines and the software used for managing the panels through SCADA. The expert shared experimental videos with the students which was very informative and students of 5th semester got benefited.

Lecture on “Comprehensive Approach to Object-Oriented Programming using Java”
Date:- 07.02.2024

The IEEE NHCE Student Branch Chapter of Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru had organized a Lecture on “Comprehensive Approach to Object-Oriented Programming using Java” on 07.02.2024 for 5th semester students. Dr. Beenu Mago, Assistant Professor in the School of Computing, Skyline University, Sharjah, UAE conducted the live session on topics like methods, objects, classes, constructors, static variables, access modifiers, data field, encapsulation

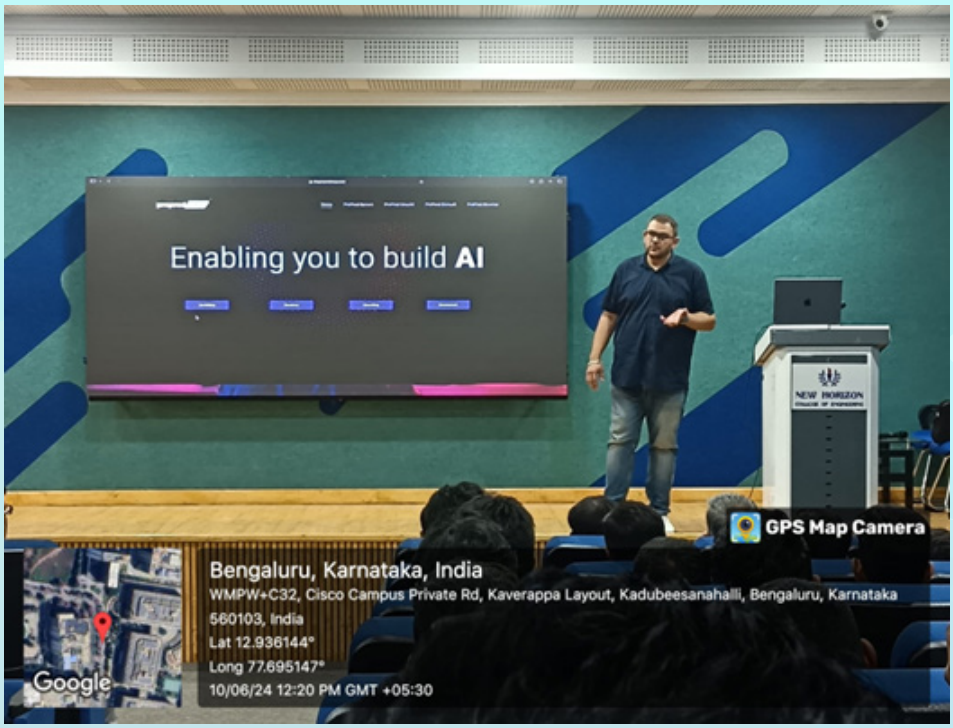
Lecture on “Comprehensive Approach to Object-Oriented Programming using Java”
Date:- 07.02.2024

The department of Research & Development In association with Department of Electrical and Electronics Engineering had organized Lecture #4(of R&D Lecture Series)on Innovative Research titled Art of Writing Innovative Research Proposal for Funding– An Overview on 10.02.2024 at Falconry Seminar Hall. The objective of the lecture series was to provide insights on research proposal writing to get funding in different research areas .Dr. C. Bharatiraja, Head-Centre of Electric Mobility (EMC), DSTPURSE Coordinator, SRM Institute of Science and Technology, Chennai was the resource person.

Challenges and Solution to meet Safety in Power Electronics Systems
Date:- 08.05.2024

The department of Research & Development In association with Department of Electrical and Electronics Engineering had organized Lecture #4(of R&D Lecture Series)on Innovative Research titled Art of Writing Innovative Research Proposal for Funding– An Overview on 10.02.2024 at Falconry Seminar Hall. The objective of the lecture series was to provide insights on research proposal writing to get funding in different research areas .Dr. C. Bharatiraja, Head-Centre of Electric Mobility (EMC), DSTPURSE Coordinator, SRM Institute of Science and Technology, Chennai was the resource person.

“AI” as a wrapper around your domain
Date: - 10.06.2024



Department of EEE had organized an expert talk on “AI as a wrapper around your domain” on 10.06.2024. The speaker of this event was Mr. Krishnav Dave, Founder & CEO, @Preprod Crop, Bangalore. The speaker embarked on AI and the importance of observation and prediction which forms the core of predictive analytics.

INDUSTRIAL VISITS

Industrial Visit on “Electrical Machines”
Date:- 11.01.2024

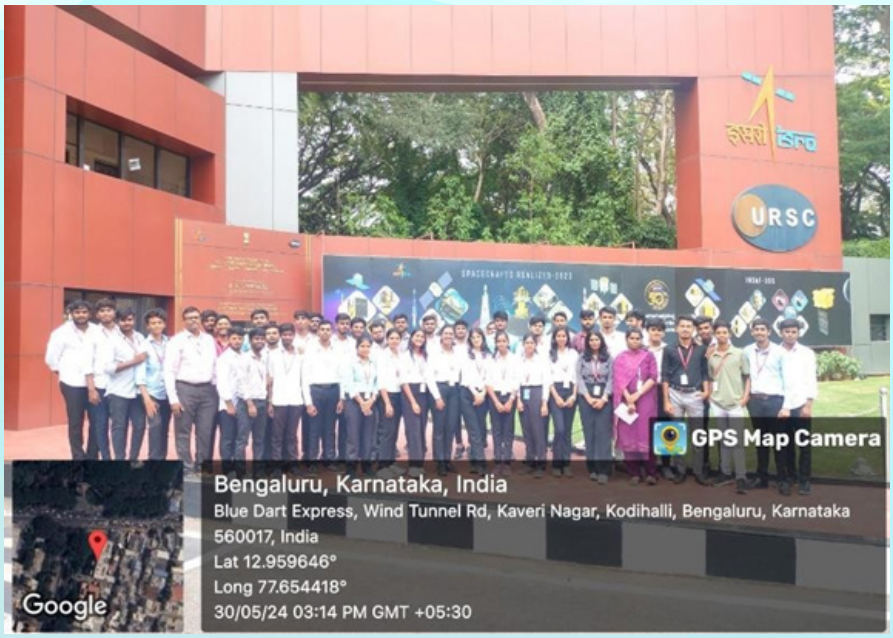
IEEE Power Electronics Society NHCE Student Branch Chapter of Electrical & Electronics Engineering Department, NHCE in association with IEEE PELS Bangalore Chapter Organized Industrial Visit on “Electrical Machines: Synchronous and Induction Machines” on 11.01.2024 at Rajamane & Hedge Services Pvt Ltd, Tumkur. This Industry was established in the year 1975 by its founder Chairman Mr. S.K.Rajamane, an ex-design engineer of rotating machines from Kirloskar Electric. Rajamane & Hegde Services Pvt Ltd has also become one among the Pioneers in the field of large LT/ HT-AC/DC Electric motor / Generator/ Servo motors repairs & servicing as most of the global / OE manufactures authorizing the Company as their service partner in India; With its state of the art facilities spread across Bangalore, Tumkur & Hubli.

The outcome of the programme is to bring the students to industry platform to a collective gathering for exchanging and sharing the knowledge about the recent developments in electrical machines The entire session is very informative and enthusiastic manner in the area of electrical machines industry. Industry visit has been very well received by the 45 student participants and 2 Faculty Members (Dr. Gunapriya.B and Prof. Satishkumar.D) along with 2 Lab Instructors (Mr. Narasimha Moorthy and Ms. Poorva) are benefitted.

Industrial Visit on “Electrical Machines”
Date:- 18.01.2024

IEEE Power Electronics Society NHCE Student Branch Chapter of Electrical & Electronics Engineering Department, NHCE in association with IEEE PELS Bangalore Chapter had organized an Industrial visit on 18.01.2024 to Rajamane & Hedge Services Pvt Ltd, Tumkur. The outcome of the program was to bring the students to industry platform to a collective gathering for exchanging and sharing the knowledge about the recent developments in electrical machines.

Industrial Visit to ISRO-U R Rao Satellite Center (URSC), Bengaluru
Dates:- 29.05.2024 & 30.05.2024



The department of EEE had organized an Industrial visit to Indian Space Research Organisation (ISRO) on 29.05.2024 and 30.05.2024.The visit provided the students with valuable insights into the operations, research, and development activities of one of the world's leading space agencies. The Industrial visit to ISRO was an incredibly enriching experience that broadened the understanding of space science and technology. It provided a firsthand look at the operations of a leading space research organization and highlighted the importance of innovation, teamwork, and dedication in achieving scientific milestones. The visit has ignited the passion for space exploration and motivated students to excel in their respective fields.

TEDx TALKS

Hacking the future excelling in tomorrow's playground
Date:- 29.04.2024

The Department of EEE had organized TEDx Talk(recorded) for VI Semester Sec A and B students on 29/04/2024. In his TED Talk, the speaker Mr. RK Shenoy, CTO – Executive Board and Senior VP – Mobility Engineering at BGSW (Bosch Global Software Technologies) briefed his personal and professional journey as an electronics engineer, highlighting significant transformations in the mobility and IoT sectors. In another Talk the speaker Ms Manya Ganapathy embarked on the Anugraha Project which focuses on providing free, nutritious meals to low-income residents in Bangalore.

The Majesty of Acumen : Catalogue on the Power of Knowledge
Date: 04.05.2024

The Department of EEE had organized TEDx Talk(recorded) for VIII Semester Sec A and B students on 04.05.2024. The speaker Naman Vankadari is a prominent Advocate and Assistant Professor known for his innovative approach at the intersection of law, education, and entrepreneurship. Through his TEDx talk, he advocates for experiential learning and critical thinking. The other speaker Mansi Prasad explores the concept of aligning one's professional career with personal passions to achieve a fulfilling and purposeful life. Being a Carnatic vocalist and museum director, she emphasizes the importance of self-discovery and introspection in identifying one's true calling.

Unveiling Bliss- Navigating Contenment while Pursuing your Dreams
Date: 06.06.2024

The Department of EEE had organized TEDx Talk(recorded) for IV Semester Sec A and B students on 06/06/2024.The speaker Dushyant Dubey narrated his empowering journey in Bengaluru where he emphasizes the transformative power of community support and Dubey's involvement in social causes spans a broad spectrum, from civic awareness and animal welfare to women's empowerment and mental health. The other speaker Krishnan Mahadevan, popularly known as the "Idly King of Bangalore," Mahadevan emphasized that success is not solely measured by financial gains but by the fulfilment and joy that comes from pursuing one's passion. One of the key themes of Mahadevan's talk is innovation. When he took over the family business, he didn't just continue the legacy; he transformed it. He implemented stringent quality controls, modernized business practices, and developed innovative marketing strategies to build a brand that stood out in the competitive food industry.

Achievements

Vikash Rawat (1NH20EE120) & Tantapureddi Harita (1NH20EE117) of EEE department, NHCE for securing 3rd place in the 'Young Upstart Entrepreneurial Design Thinking' Competition held at SAP Labs India, Whitefield, Bangalore on 01/03/2024 and 07/03/2024.Their dedication, hard work, and passion have not only brought recognition to themselves but also added pride to our institution.

Students from New Horizon College of Engineering, Bangalore, participated in the Handball tournament at the VTU Central Zone level, held at BMS College of Engineering, Bangalore, on 03.02.2024. Our team achieved the runner-up position. Two students, Baru Tejesh (1NH22EE017) and Pavan Kumar. M (1NH23EE404), represented the E.E.E department. We extend our heartfelt congratulations to them.

Eee Students Placement Details

USN	Name	Company Placed	CTC
1NH20EE101	SHASHANK JOSHI	Eurofins IT Solutions/KPIT	1075000/4,50,000
1NH20EE066	MOHAMMED IMAD	KPIT	450,000
1NH20EE120	VIKASH RAWAT	KPIT	450,000
1NH20EE037	HARSHIKA HARSHIKA	KPIT	450,000
1NH20EE029	DAYAS A DIXEN	KPIT	450,000
1NH20EE085	RAGHAVENDRA NAGAYYA SWAMI	KPIT	450,000
1NH20EE107	SHREYA D REVANKAR	Computacenter	500,000
1NH20EE035	DONY SNEHIT	Societe Generale	543,724
1NH21EE402	DHEERESH DEVADIGA	Surya Software	700,000
1NH20EE049	KEERTHI M	Netradyne Technology Pvt Ltd	600,000
1NH20EE098	SAPNA S	ITC Infotech Ltd/SIEMENS	425000/4,50,000
1NH20EE037	HARSHIKA HARSHIKA	ITC Infotech Ltd	425,000
1NH20EE075	PM KEERTHANA	ITC Infotech Ltd	425,000
1NH20EE030	DEEPIKA K SHETTY	ITC Infotech Ltd	425,000
1NH20EE063	MANU K	Musigma	500,000
1NH20EE042	INFANCIA PRAGNA	Musigma	500,000
1NH20EE005	ADITI J	Musigma	500,000
1NH20EE078	PONDE SUMANTH	Microland	400,000
1NH20EE128	YESHWANTH M	Microland	400,000
1NH20EE064	MEGHANA I K	Microland	400,000
1NH20EE117	TANTAPUREDDI HARITHA	Microland	400,000
1NH20EE090	ROCHIL BISEN	Microland	400,000
1NH20EE077	PAVAN KUMAR BP	Microland	400,000
1NH20EE078	PONDE SUMANTH	PhonePe	480,000
1NH20EE122	VINAYKUMAR KAWTAGI	PhonePe	480,000
1NH20EE097	SANJANA	PhonePe	480,000
1NH20EE123	VISHAL	PhonePe	480,000
1NH20EE077	PAVAN KUMAR BP	PhonePe	480,000
1NH20EE013	ANUJ PRATHAP SINGH	Yokogawa	460,000
1NH20EE096	SANJAN R	Yokogawa	460,000
1NH20EE007	Advaith Madhavan	DYNALEKTRIC	300,000
1NH20EE024	C K KISHORE	DYNALEKTRIC	300,000
1NH20EE081	Pramod G	DYNALEKTRIC	300,000
1NH21EE404	JAYANTH C K	DYNALEKTRIC	300,000
1NH20EE039	HARSHITHA K	CAPGEMINI	425,000
1NH20EE048	Kamalesh Badola	CAPGEMINI	425,000
1NH20EE054	KOVVURI JAVED AJMAL BABA	CAPGEMINI	425,000

1NH20EE063	Manu K	CAPGEMINI	425,000
1NH20EE073	Neha	CAPGEMINI	425,000
1NH20EE111	Sneha S A	CAPGEMINI	425,000
1NH20EE066	Mohammed Imad	NAKANICHI METAL (International)	2,500,000
1NH20EE028	Darshan	Intrainz	400,000
1NH20EE051	Kiran R	Intrainz	400,000
1NH20EE001	Aamna Nafiza	Merck	
1NH20EE112	Sreeram G	Fleurdelis Technologies Pvt Ltd	300,000
1NH20EE044	Jayanth D	Fleurdelis Technologies Pvt Ltd	300,000
1NH21EE409	Sharath Kumar M	Fleurdelis Technologies Pvt Ltd	300,000
1NH20EE079	Pooja R	SOLAREDGE	500,000
1NH20EE086	Rahul B	SOLAREDGE	500,000
1NH20EE020	Beula Jasmine A	SOLAREDGE	500,000
1NH20EE010	Amisha Athrey	SOLAREDGE	500,000
1NH20EE093	S Sonu	SOLAREDGE	500,000
1NH20EE059	M.Gagan	SOLAREDGE	500,000
1NH20EE088	Rakshitha Hr	IPEC MOBILITY	314,000
1NH20EE022	BHARATH T	IPEC MOBILITY	314,000
1NH20EE110	Simran Kanwar	Hitachi India	500,000
1NH20EE039	Harshitha K	Hitachi India	500,000
1NH20EE129	Yoga Pratesh R	HEALTHASYST	500,000
1NH20EE108	SIDDANTH REDDY K S	FINTELLIX - Phase 2	280,000
1NH20EE027	DAIVIK K	FINTELLIX - Phase 2	280,000
1NH20EE002	Abhay Shetty KN	Formoplastic	300,000
1NH21EE40	Ramakanth H Dolli	Formoplastic	300,000
1NH20EE124	Vishwas D.P	Oneadvanced	642,000
1NH20EE061	Manasa Reddy	Oneadvanced	642,000
1NH21EE400	Anilakumar U	Avalon Technologies private limited	600,000
1NH20EE127	YASWANTH S	Candor	350,000
1NH20EE058	LAVANYA N	FINTELLIX - Phase 2	280,000

Alumni Feedback

Infancia Pragna (1NH20EE042)

NHCE is more than just a campus; it's a hub of growth, where learning, camaraderie, and cultural enrichment blend seamlessly. Here, every voice is valued, every opinion respected. My journey here has been transformative, elevating my knowledge and bolstering my confidence. The faculty's unwavering support extends beyond academics, nurturing holistic development through various activities. Thanks to NHCE, I've not only honed my engineering skills but also cultivated qualities essential for personal growth. The comprehensive placement training paved the way for a promising career start. My heartfelt gratitude to all who have made this remarkable journey possible.

Mohammed Imaad (INH20EE066)

I owe a debt of gratitude to the HR department at New Horizon College of Engineering for their invaluable assistance in securing a position at a prestigious Japanese company. Their dedication to providing comprehensive career guidance, organizing impactful workshops, and facilitating networking opportunities played a pivotal role in my professional journey. Thanks to their unwavering support and commitment, I am now embarking on an exciting chapter in my career, and I am incredibly grateful for their guidance and encouragement every step of the way.

MoUs

New Horizon College of Engineering signed an MoU with Chaarvedha Solutions, Bengaluru to strengthen industry-institute collaboration on 10th February 2024. This partnership will augment research and consultancy and also provide skilling opportunities for the students and Faculty of New Horizon College of Engineering, Bangalore. NHCE is a leader in Industry Collaboration across domains and this day marks another important milestone for both NHCE and Chaarvedha in the area of Industrial Automation and EV technologies.

Key takeaways

- Industry-academia collaboration to bridge the skills gap and to exchange information on research and educational programs.
- Training and development opportunities for students, freshers, NHCE faculty members, and Industry Trainees.
- A hub for cutting-edge research and Consultancy projects in Industrial Automation and EV technologies.

Faculty competencies in correlation to the Research Papers Presentation in Conference

Sl. No	Academic Year	Name of the Faculty	Title of the paper	Name of the Conference	Date	Venue
1	1011-1•	Dr Supdha S	Traffic Disciplinary Control using IoT for urban areas and expressways	International Conference on Nanotechnology, Renewable Materials Engineering & Environmental Engineering (ICNRMEEE 101•)	11 05 101•	ICNRMEEE, Mysore
2	1011-1•	Mr. SuracPyan Aa	Traffic Disciplinary Control using IoT for urban areas and expressways	International Conference on Nanotechnology, Renewable Materials Engineering & Environmental Engineering (ICNRMEEE 101•)	11 05 101•	ICNRMEEE, Mysore
3	1011-1•	Dr Mausm Bhuyan	Frequency analysis in a combined hybrid microgrid tuned by DRDA Algorithm	1[st] IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES 101•)	16 0• 101• to 18 0• 101•	Delhi Technological University, Delhi
4	1011-1•	Mr. Anche Nar A S	Ant Colony Optimization tuned fractional order PID controller for speed regulation in hybrid electric vehicle	1[st] IEEE International Conference on Recent Advances in Electrical, Electronics, Ubiquitous Communication and Computational Intelligence (RAEEUCCI 101•)	17 0• 101• to 18 0• 101•	SRM Institute of Science and Technology, Kattankulathur
5	1011-1•	Dr Mausm Bhuyan	Economic load dispatch for dealing with solar power uncertainty using pelican optimization algorithm	1[st] IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES 101•)	16 0• 101• to 18 0• 101•	Delhi Technological University, Delhi
6	1011-1•	Dr Ganagnya B	Renewable – Powered Smart Grids Seamless Integration of electric vehicles	International Conference on Design, Materials Mechatronics Algorithms for Engineering (ICDMMA 101•)	1• 0• 101•	Jai Shriram Engineering College, Tirupur
7	1011-1•	Mr Karthick Venkatesan	Simulation based exploration of AI & IoT integration in autonomous vehicle systems	International Conference on Design, Materials Mechatronics Algorithms for Engineering (ICDMMA 101•)	1• 0• 101•	Jai Shriram Engineering College, Tirupur
8	1011-1•	Dr Supdha S	Simulation based exploration of AI & IoT integration in autonomous vehicle systems	International Conference on Design, Materials Mechatronics Algorithms for Engineering (ICDMMA 101•)	1• 0• 101•	Jai Shriram Engineering College, Tirupur
9	1011-1•	Dr Vinoth Kumar K	Hardware design investigation of transformable solar home-based lighting system using IoT	7[th] IEEE International Conference on Inventive Computation Technologies (ICICT 101•)	1• 0• 101• to 16 0• 101•	Tribhuvan University, Nepal
10	1011-1•	Dr Sakthivel Anathany	Smart Energy Meter Under Griha Jyothi Scheme in Karnataka	9[th] IEEE International Conference on Science, Technology, Engineering and Mathematics (ICONSTEM 101•)	0• 0• 101• to 05 0• 101•	Jeppiaar Engineering College, Chennai
11	1011-1•	Mr. Vinod Kumar S	Indoor air quality monitoring system for healthcare	9[th] IEEE International Conference on Science, Technology, Engineering and Mathematics (ICONSTEM 101•)	0• 0• 101• to 05 0• 101•	Jeppiaar Engineering College, Chennai
12	1011-1•	Mr. Vinod Kumar S	Wearable electrocardiogram monitoring device for remote cardiac health management	9[th] IEEE International Conference on Science, Technology, Engineering and Mathematics (ICONSTEM 101•)	0• 0• 101• to 05 0• 101•	Jeppiaar Engineering College, Chennai
13	1011-1•	Dr Supdha S	Implementation of automated forest fire detection system using IoT	6[th] IEEE International Conference on Inventive Computation and Information Technologies (ICICIT 101•)	16 0• 101• to 17 0• 101•	Stamford International University, Bangkok, Thailand
14	1011-1•	Dr Vinoth Kumar K	Implementation of Farm guard with automated animal detection and monitoring system using IoT	9[th] IEEE International Conference on Science, Technology, Engineering and Mathematics (ICONSTEM 101•)	0• 0• 101• to 05 0• 101•	Jeppiaar Engineering College, Chennai
15	1011-1•	Dr Supdha S	Implementation of Farm guard with automated animal detection and monitoring system using IoT	9[th] IEEE International Conference on Science, Technology, Engineering and Mathematics (ICONSTEM 101•)	0• 0• 101• to 05 0• 101•	Jeppiaar Engineering College, Chennai
16	1011-1•	Dr Vinoth Kumar K	A certain analysis of solar home based lighting system for smart city designed for sustainable development	101• IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST 101•)	15 01 101• to 16 01 101•	Presidency University, Bengaluru
17	1011-1•	Mr Satish Kumar D	Speed Control of PMSM using Fuzzy Logic Control with PSO Optimization Technique	101• IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST 101•)	15 01 101• to 16 01 101•	Presidency University, Bengaluru
18	1011-1•	Mr. Sangeetha C N	Object – Oriented RFID with machine learning and IoT	101• IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST 101•)	15 01 101• to 16 01 101•	Presidency University, Bengaluru
19	1011-1•	Dr Vinoth Kumar K	Object – Oriented RFID with machine learning and IoT	101• IEEE International Conference on Recent Innovation in Smart and Sustainable Technology (ICRISST 101•)	15 01 101• to 16 01 101•	Presidency University, Bengaluru
20	1011-1•	Dr Mausm Bhuyan	Object – Oriented RFID with machine learning and IoT	101• IEEE International Conference on Recent Innovation in Smart and Sustainable Technology	15 01 101• to 16 01 101•	Presidency University, Bengaluru

CAREER OPTIONS

Students with a B.E/B.Tech in Electrical and Electronics Engineering (EEE) have several job opportunities, both domestically and internationally. Here are some of the prominent paths they can pursue:

1. Core Engineering Roles

- Electrical Engineer: Involved in the design, development, testing, and maintenance of electrical systems and components.
- Electronics Engineer: Focuses on the design and development of electronic equipment such as broadcast and communications systems.
- Control and Instrumentation Engineer: Works with systems that monitor and control machinery.
- Power Engineer: Specializes in the generation, transmission, and distribution of electrical power.
- Telecommunications Engineer: Works with data transmission through wired or wireless means.

2. Information Technology and Software

- Software Developer/Engineer: Develops software applications, often requiring strong programming skills.
- Systems Analyst: Analyzes and designs technology solutions to meet business needs.
- Network Engineer: Focuses on the design, implementation, and management of computer networks.

3. Research and Development

- Research Scientist: Engages in innovative research to develop new technologies and products.
- R&D Engineer: Works on creating new products and improving existing ones through research and testing.

4. Higher Education and Specialization

- Master's Degree (M.Tech/M.S): Pursuing further studies in specialized fields such as VLSI, Power Systems, Renewable Energy, Embedded Systems, etc.
- Ph.D.: Engaging in advanced research leading to a doctoral degree in specialized areas of electrical and electronics engineering.

5. Management and Administration

- Project Manager: Manages engineering projects, ensuring they are completed on time and within budget.
- Operations Manager: Oversees the production, maintenance, and operations within an organization.
- Technical Consultant: Provides expert advice and solutions for technical challenges.

Government and Public Sector

Indian Engineering Services (IES): Offers opportunities to work in various government departments such as railways, power, defense, etc.
Public Sector Undertakings (PSUs): Opportunities in companies like BHEL, NTPC, ONGC, etc., which require EEE graduates.

1. Core Engineering Roles

- Electrical Engineer: Involved in the design, development, testing, and maintenance of electrical systems and components.
- Electronics Engineer: Focuses on the design and development of electronic equipment such as broadcast and communications systems.
- Control and Instrumentation Engineer: Works with systems that monitor and control machinery.
- Power Engineer: Specializes in the generation, transmission, and distribution of electrical power.
- Telecommunications Engineer: Works with data transmission through wired or wireless means.

2. Information Technology and Software

- Software Developer/Engineer: Develops software applications, often requiring strong programming skills.
- Systems Analyst: Analyzes and designs technology solutions to meet business needs.
- Network Engineer: Focuses on the design, implementation, and management of computer networks.

3. Research and Development

- Research Scientist: Engages in innovative research to develop new technologies and products.
- R&D Engineer: Works on creating new products and improving existing ones through research and testing.

4. Higher Education and Specialization

- Master's Degree (M.Tech/M.S): Pursuing further studies in specialized fields such as VLSI, Power Systems, Renewable Energy, Embedded Systems, etc.
- Ph.D.: Engaging in advanced research leading to a doctoral degree in specialized areas of electrical and electronics engineering.

5. Management and Administration

- Project Manager: Manages engineering projects, ensuring they are completed on time and within budget.
- Operations Manager: Oversees the production, maintenance, and operations within an organization.
- Technical Consultant: Provides expert advice and solutions for technical challenges.

6. Government and Public Sector

- Indian Engineering Services (IES): Offers opportunities to work in various government departments such as railways, power, defense, etc.
- Public Sector Undertakings (PSUs): Opportunities in companies like BHEL, NTPC, ONGC, etc., which require EEE graduates.

7. Renewable Energy and Sustainability

- Renewable Energy Engineer: Works on projects related to solar, wind, and other renewable energy sources.
- Energy Auditor/Manager: Assesses and improves energy efficiency in various sectors.

8. Automation and Robotics

- Automation Engineer: Focuses on designing and implementing automated systems.
- Robotics Engineer: Involved in the design, development, and maintenance of robotic systems.

9. Academic and Teaching

- Lecturer/Professor: Teaching positions in colleges and universities.
- Academic Researcher: Conducting research and publishing papers in academic journals.

10. Entrepreneurship

- Start-Up Founder: Starting a business in fields like tech innovations, energy solutions, and electronics manufacturing.
- Technical Consultant: Offering specialized consultancy services.

11. International Opportunities

- Multinational Corporations (MNCs): Positions in global companies that require expertise in electrical and electronics engineering.
- Higher Education Abroad: Pursuing advanced degrees or specialized certifications from international universities.
- Research and Development: Engaging in cutting-edge research projects in reputed international research institutes and companies.

Key Skills Required

To excel in these career paths, EEE graduates should focus on developing the following skills

- Strong foundation in electrical and electronics principles.
- Proficiency in programming languages and software tools relevant to the industry.
- Analytical and problem-solving skills.
- Effective communication and teamwork abilities.
- Continuous learning and adaptability to new technologies.

Pursuing internships, certifications, and practical projects can also enhance employability and expertise in the chosen field.

Ring Road, Bellandur Post, Near Marathahalli
Bengaluru, India pin-560103

www.newhorizonindia.edu