

**Department of
Electrical & Electronics Engineering**

CURRENTS NEWSLETTER JANUARY-JUNE 2023

www.newhorizonindia.edu

Outer Ring Road, Bellandur Post, Near Marathahalli
Bengaluru-560103, Karnataka, India

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VOLUME 11-ISSUE 2



Message from the Principal



Dr. Manjunatha
Principal, NHCE

Dear All,

At our institution, we firmly believe that education should extend beyond the prescribed curriculum to equip students with the knowledge, skills, and competencies required by the industry. In today's rapidly evolving professional landscape, several industry leaders have highlighted the growing concern that many engineering graduates lack the practical skills necessary for employment. Recognizing this challenge, NHCE has consistently taken proactive measures to bridge the gap between academic learning and industry expectations, ensuring that our students are well-prepared for successful careers.

It gives me great pleasure to introduce "Currents" – Volume 11, Issue 2 (January–June 2023, Academic Year 2022–2023), the Department Newsletter of Electrical and Electronics Engineering. This edition showcases the department's achievements, activities, technical events, student accomplishments, and faculty contributions during the academic year. The newsletter serves as an informative platform that reflects the vibrant academic environment and continuous growth of the department. I extend my heartfelt congratulations to all the contributors, students, faculty members, and the editorial team for their dedicated efforts in bringing out this excellent publication. I am confident that readers will find this issue both insightful and inspiring.

Wishing you an enjoyable and enriching reading experience.

Happy Reading!

Message from the HoD



Dr. S.Sujitha
HoD-EEE

Dear Readers,

It gives me immense pleasure to present “Currents” – Volume 11, Issue 2 (January–June 2023, AY 2022–2023), the newsletter of the Department of Electrical and Electronics Engineering. This publication is the result of the sincere efforts of our editorial team, who have diligently compiled and documented the significant activities, achievements, and events organized by the department during the past six months.

The newsletter highlights the accomplishments and participation of students, faculty members, alumni, and industry experts in various academic, technical, and professional endeavors. It serves as a platform to showcase the innovation, commitment, and excellence demonstrated by our department in diverse areas of Electrical and Electronics Engineering. The primary objective of Currents is to keep our stakeholders informed about departmental activities while fostering a spirit of learning, collaboration, and continuous improvement. Through this publication, we aim to provide a genuine and comprehensive account of the achievements, initiatives, and contributions of our students and faculty members.

I sincerely appreciate the dedication, enthusiasm, and teamwork of all those who have contributed to the successful release of this issue. Their collective efforts have made this newsletter both informative and inspiring. I extend my warm regards and best wishes to all our readers and hope you find this edition engaging and insightful.

Happy Reading!

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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
- Inclusiveness
- Professionalism
- Integrity
- Innovation
- 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 & Electronics Engineering has established Institute of Electrical and Electronics Engineers (IEEE) – Power Electronics Society (PELS) Student Branch Chapter IEEE PES IEEE IES 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)

PEO 1: 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 & 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 OUTCOMES (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



Prof. Vinod Kumar S

Senior Assistant Professor, EEE



Maruthi B
1NH19EE071



Aditi J
1NH20EE005



Bharath T
1NH20EE022



Meghana IK
1NH20EE064



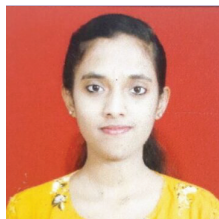
Yashaswini N
1NH20EE069



Sreeram G
1NH20EE112



Koushik P
1NH20EE403



Shravani S
1NH21EE108



Syeda Mehak Fathima
1NH21EE118

Ucreate Club organized TechPlay



U-Create club of the Electrical and Electronics department conducted an event TECHPLAY ON 13TH JANUARY. The session was hosted by Harshitha. R of the 7th Semester and started with a Welcome Note to our contestants, to all the students of the 3rd and 5th semesters students, and to the faculty of the electrical and electronics department. The event was preceded by a short talk by prof. Kodandapani of the electrical and electronics department. In his talk, he emphasized the importance of Innovation in the Electrical Domain. After which the event started with 30 enthusiastic participants. The event ran in Three rounds where in the first round they have to pick and speak on an electrical topic, the shortlisted members were moved to the second

round. In which they had a circuit to block. A circuit was given and was asked to decode it. This was followed by an elimination round. The third round had similar to the second round where the participants had to debug a code which was given by the ucreate members. Basically, it consist of a code that had errors and the shortlisted participants had to debug the code. which successfully led to the end of the three rounds of TECHPLAY. The participants from various departments actively participated in the event and had a great fun learning session. The students from other branches than the electrical branch got great exposure to Electrical Domain. At the end of this knowledge-oriented day, we came up with three brilliant Participants as winners decorating first, second and third place for whom the prizes were distributed by the faculty coordinator of the U-Create club prof. Kodandapani sir. The event ended with prize distribution and a vote of thanks. The inquisitiveness of all the participants led them to learn all the important aspects of electrical projects which will definitely help them to boost their technical skills indeed this was also an event where the participants used this opportunity to evaluate their knowledge

Specific Orientation cum Q& A session



NEW HORIZON
COLLEGE OF ENGINEERING

Department of Electrical and Electronic Engineering

In association with



INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of HRD Initiative)



IEEE IES Bangalore Chapter



IEEE
Industrial
Electronics
Society

New Horizon College of Engineering
Geo-Code SBC66131B

Organizing

**A National Workshop
on**

**Specific Orientation cum Q&A session
ON**

Patent Drafting and Filing Procedures

Hosted by

NHCE-Institution's Innovation Council & IPR CELL

Start Time

2:00 pm

March 11, 2023

Finish Time

4:00 pm

March 11, 2023

IEEE IES NHCE Student Branch **Chapter** **Inaugural Ceremony**



The Inauguration of IEEE IES Student Branch Chapter (Geo Code: SBC66131B) of New Horizon College of Engineering, Bengaluru was held on 11th March 2023 at Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru through. The program began with a welcome address by the Dr.Sujitha S, Associate Professor & HoD, EEE Department of NHCE. Dr. Vinoth Kumar K, IEEE IES SBC Advisor introduced the biography of Chief Guest. The Chief Guest of Inaugural ceremony will be Mr. Vishal Anand A G, Chair, IEEE IES Bangalore Chapter Section & Principal Engineer, Bloom Energy (I) Pvt Ltd, Bengaluru delivered the inaugural speech. He emphasized the mission of the IES student branch chapter and how this could help the academia in solving problems related to energy and also stressed that power electronics is

the key for integrating renewable energy into the grid and the importance of power electronics in energy generation, management and conservation. Dr. Vinoth Kumar K, IEEE IES SBC Advisor presented the information about IEEE IES NHCE SBC activities and proposed the Office Bearers of IEEE IES NHCE for the year 2023. The proposed office bearers were accepted by Dr. Mohan Das, Associate Professor, EEE, NHCE and seconding by Mr. Vishal Anand A G, Chair, IEEE IES Bangalore Chapter Section & Principal Engineer. The Presidential address was delivered by Dr. Sujitha S, Head of department Electrical and Electronics Engineering, NHCE. And the overview about IEEE IES was delivered by Dr. Shefali Jagwani Vice Chair IEEE IES Bangalore Chapter, and finally the vote of thanks was proposed by Mr. Peerzada Anzar Azmat Chair IEEE NHCE. The Inauguration was graced with the presence of Dr.Sanjeev Sharma , Dean Academics of NHCE and Dr.Aravinda K,

Professor & Head of Department, ECE ,NHCE and Dr. Sumit Soman Chair IEEE Sensors Council Bangalore Chapter and Mr. Chandrashekar ,Vice president Ambee. The event was made more colorful by the active participation of under graduate students and faculties from Department of Electrical and Electronics Engineering, New Horizon College of Engineering and other college faculty members were present at the audience. Altogether the IEEE IES NHCE SBC Inauguration was a great success and all the members are very excited in taking forward this society to greater heights.

National **Workshop** on “New paradigm in Renewable Energy – Microgrids, EV and Hydrogen”



The IEEE IES NHCE Student Branch Chapter from Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru is organizing the National Workshop on “New paradigm in Renewable Energy – Microgrids, EV and Hydrogen” on 11th March 2023, Wednesday, between 10:00 AM to 04:00 PM in association with IEEE Industrial Electronics Society Bangalore Chapter. . The objective of the programme is to bring the researchers and academic experts from reputed institutes of our country to a collective gathering for exchanging and sharing the knowledge about the recent developments and research challenges in new paradigm in Renewable Energy – Microgrids, EV and Hydrogen.

Start Time

10:00 am

March 11, 2023

Finish Time

4:00 pm

March 11, 2023

National **Workshop** on Specific Orientation cum Q&A Session ON Patent Drafting and Filing procedures



NEW HORIZON
COLLEGE OF ENGINEERING

Department of Electrical and Electronic Engineering

In association with



INSTITUTION'S
INNOVATION
COUNCIL
(Ministry of HRD Initiative)



IEEE IES Bangalore Chapter



IEEE
Industrial
Electronics
Society

New Horizon College of Engineering
Geo-Code SBC66131B

Organizing

A National Workshop
on
Specific Orientation cum Q&A session
ON
Patent Drafting and Filing Procedures

Hosted by
NHCE-Institution's Innovation Council & IPR CELL

The IEEE IES NHCE Student Branch Chapter from Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru is organizing the National Workshop on “Specific Orientation cum Q&A Session ON Patent Drafting and Filing procedures” on 11th March 2023, Wednesday, between 02:00 PM to 04:00 PM in association with IEEE Industrial Electronics Society Bangalore Chapter. The objective of the programme is to bring the researchers and academic experts from reputed institutes of our country to a collective gathering for exchanging and sharing the knowledge about the Patent Drafting and Filing procedures.

Start Time

2:00 pm

March 11, 2023

Finish Time

4:00 pm

March 11, 2023



NEW HORIZON
COLLEGE OF ENGINEERING

Department of Electrical and Electronics Engineering

Inaugural Ceremony of

IEEE Industrial Electronics Society NHCE Student Branch Chapter

IEEE
Industrial Electronics Society
Geo-Code is SBC66131B

CHIEF GUEST

Mr. Vishal Anand A G
Chair, IEEE IES Bengaluru Chapter &
Senior Principal Engineer
Bloom Energy (I) Pvt Ltd, Bengaluru, India

One Week Self Sponsored WORKSHOP ON “RECENT TRENDS IN ENERGY STORAGE AND ELECTRIC VEHICLE TECHNOLOGY”, 20th March – 24th march 2023. on Hybrid Mode

The Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru is organizing the National Workshop on “One Week Self Sponsored WORKSHOP ON “RECENT TRENDS IN ENERGY STORAGE AND ELECTRIC VEHICLE TECHNOLOGY”, 20th March – 24th march 2023. on Hybrid Mode. The objective of the programme is to bring the researchers and academic experts from reputed institutes of our country to a collective gathering for exchanging and sharing the knowledge about the recent developments and research challenges in new paradigm in Electrical Vehicles, Battery Management System and Energy Storage.

**Self-sponsored Five Days Workshop
ON
RECENT TRENDS IN ENERGY STORAGE AND
ELECTRIC VEHICLES TECHNOLOGIES**

SCOPE
20th March -24th March 2023



Sustainable Transformation of Energy Eco System with Smart Technologies.

Battery – EV Integration
Battery Charger for EV
Controllers and Convertors
Energy Storage Technologies
Issues and Opportunities

Comprehensive Inputs with Design, Architecture, Operation of ES & EV

Battery – Management
AI for ES and EV
Advances in ES and EV
Career opportunities in ES & EV

CHIEF PATRON
Dr. Mohan Manghnani
Chairman,
New Horizon Educational Institution

PATRONS
Dr. Manjunatha
Principal

Dr. Sanjeev Sharma
Dean-QASDC

Dr. Anandhi R J
Dean-Academics

Event Convener
Dr. S Sujitha
Associate Professor & HOD
Dept. of Electrical and
Electronics Engineering

Dr. Mohan Das R
Associate Professor
Dept. of Electrical and
Electronics Engineering
9786584737

Mr. Vinod Kumar S
Senior Assistant Professor
Dept. of Electrical and
Electronics Engineering
9751015185

Day/Date	Session -1	Session-2	Session-3	Session-4
	9:30am to 11:00am	11:15am to 12:45pm	1:30pm to 3:00pm	3:15pm to 4:45pm
Day-1/ 20-03-23 Monday	Inaugural Session Shree. K. Jeykishan Kumar Engineering officer, CPRI Chief Guest	Key Note Address Shree. K. Jeykishan Kumar Engineering officer, CPRI	Design of EV battery and charger Dr. D. Sreenivasa rao NIT Warangal	Battery chargers for Electrical vehicles Dr. D. Sreenivasa rao NIT Warangal
Day-2/ 21-03-23 Tuesday	Electromagnetic- Mechano-metallur- gical aspects governing Electric vehicles Dr.Arungalai Vendan Professor, Dayanda Sagar University, Bengaluru	Power Electronics Converter in Electrical Vehicle application Dr. Nalamati Chandra Sekhar Technical Specialist Automotive (Transportation) unit, L&T Technology Services (LITS), Bengaluru	Artificial Intelligence in Electrical Vehicles Dr. Sujitha S Associate Professor and Head/EEE New Horizon college of Engineering Bengaluru	Battery Management Systems Dr.R.Mohan Das Associate Professor/EEE New Horizon college of Engineering Bengaluru
Day-3/ 22-03-23 Wednesday	Grid Impacts with EV Integration Dr.V.Arangarajan Professor/EEE New Horizon college of Engineering Bengaluru	Design and optimization of EV Drive train Dr.Agalya.V Professor and Associate Head R&D New Horizon college of Engineering Bengaluru	Development and trends in electric vehicles and charging infrastructure Dr.B.Gunapriya Associate Professor/EEE New Horizon college of Engineering Bengaluru	Analysis of parameter estimation of an electric bicycle using IOT with data analytics technique Dr.K.Vinoth Kumar Associate Professor/EEE New Horizon college of Engineering Bengaluru
Day-4/ 23-03-23 Thursday	Design thinking and innovation Dr. J Joshua Daniel Raj Senior Assistant Professor/EEE New Horizon college of Engineering Bengaluru	Role of BLDC motors in Electrical vehicles Ms. M. Karthika SeniorAssistant Professor/EEE New Horizon college of Engineering Bengaluru	Converter Design Mr. Kodandapani D Senior Assistant Professor/EEE New Horizon college of Engineering Bengaluru	Impact of Large Scale Integration of Electric Vehicle charging in the Distribution System-II Mr. Sunil S. K Senior Assistant Professor/EEE New Horizon college of Engineering Bengaluru
Day-5 24-03-23 Friday	Industrial Visit		Valedictory Session	

The Institute

New Horizon College of Engineering is an Autonomous college affiliated to Visvesvaraya Technological University (VTU), approved by the All India Technical Education (AICTE) and University Grants Commission (UGC). It is accredited by NAAC with 'A' grade and National Board of Accreditation (NBA). New Horizon College of Engineering is located in the Heart of the IT capital of India, Bengaluru. The college campus is situated in the IT corridor of Bengaluru surrounded by MNC's and IT giants.

The Department

The main objective of the Workshop is to inquire Knowledge in Battery Management System, Charging systems Storage Devices, Power Electronics Converter and Electrical Motors. Electrical Vehicles are Reliability, affordability, driving range, range prediction, charging station availability, overall trip time and especially convenience of long range travel and comfort under all ambient conditions and traffic situations. No fuel required so you save money on gas, Environmental friendly as they do not emit pollutants Lower maintenance due to an efficient electric motor Better Performance.

Objective

Welcome to the Department of Electrical and Electronics Engineering (EEE) at New Horizon College of Engineering (NHCE), Bengaluru. EEE is one of the best branches of engineering and one among the oldest departments of NHCE - Bengaluru started in 2001. The EEE Department has been playing a vital role in producing engineers and technologists of high calibre ever since it was established in the year 2001. The Department is 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.

Outcome

At the Outcome Participants will be able to find the Challenges in Battery Management Systems, Electric Motor used in Electrical Vehicle, Charging Systems, Power Electronics Converters used in Electrical Vehicles.

REGISTRATION DETAILS

Student	Faculty	Working Professional
₹500	₹1000	₹1500

ACCOUNT PARTICULARS: NHCE, Indian bank
A/C No: 484700078
IFSC: IDIB000N112

LAST DATE FOR REGISTRATION
13-03-2023

After paying the fee, fill the google form which is mandatory.

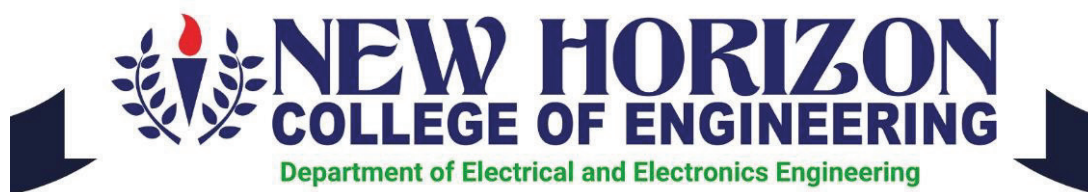
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SCAN THIS QR CODE



Design Thinking & Innovation – An Alumni Talk



WORKSHOP ON

DESIGN THINKING & INNOVATION



Bhuvaneshwari M

Design Thinking Team
Skill and Career Development
Assistant Professor
SNS Institutions
Coimbatore, Tamilnadu

FOR III & FINALYEAR STUDENTS

📅 25 March, 2023, Saturday

🕒 11:00 AM – 12:00 PM,IST

📍 ONLINE MODE

Alumni Talk is organized by the Department Of Electrical & Electronics Engineering for the III, VI and VIII Semester Students on 25/3/23 at 11AM in Online Mode. The session is going to be engaged by Ms. Bhuvaneshwari M, Design Thinking Team, Assistant Professor, SNS Institutions, Coimbatore, TamilNadu

Start Time

11:00 am

March 25, 2023

Finish Time

1:00 am

March 26, 2023

Navigating Life After Graduation – An Alumni Talk



ALUMNI TALK ON

NAVIGATING LIFE AFTER GRADUATION



Arunanshu Chakraborty

Senior software Engineer II
Carelton Global Solutions India,
Bangalore
2016 – Alumni

6TH SEMESTER STUDENTS

📅 28 March, 2023, Tuesday

🕒 02:00 PM – 03:00 PM, IST

📍 FALCONRY HALL

Alumni Talk is organized by the Department Of Electrical & Electronics Engineering for the VI Semester Students on 28/3/23 at 2PM in the Falconry Hall. The session is going to be engaged by Mr. Arunanshu Chakraborty, 2016 Alumni, and currently working as the Senior Software Engineer, Carelon Global Solutions India, Bangalore.

Start Time

2:00 pm

March 28, 2023

Finish Time

5:00 pm

March 28, 2023

National Level Seminar on “Study and Work in Germany – the land of ideas”

The IEEE IES NHCE Student Branch Chapter from Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru is organizing the National Level Seminar on “Study and Work in Germany – the land of ideas” on 10th April 2023, Thursday, between 11:00 AM to 12:00 PM in association with IEEE Industrial Electronics Society Bangalore Chapter at Falconry Hall, NHCE Bengaluru. This lecture provides an overview of Study and Work in Germany

Start Time

11:00 am

April 10, 2023

Finish Time

12:00 pm

April 10, 2023

BUILDATHON Students Technical Event



IEEE IES NHCE Student Branch Chapter of Electrical & Electronics Engineering Department, NHCE is planning to organize the Students Technical Event “BUILDATHON” on 11th April 2023. The event is targeted to B.E/B.Tech Students of NHCE. The programme details are given below.

The whole aim behind the event is to help the participants get familiarized with basic

electrical core components, concepts, as well as inspire constructive dialogue on trending topics in the technology

field. Along with improving their technical knowledge, participants will be able to elevate their soft skills such as time management, communication skills, and decision making, to ensure an all-round development it will also be a hands-on session along with a competition.

The details of the events are as follows:

Day 1: The first day of the event contains two rounds i.e., Treasure Hunt & Circuit Designing

Round 1: Treasure Hunt: This Round consist of treasure hunt where the event organizing members will be hiding a set of components and the participants seek to gather all items. Its gonna be an elimination Round the fastest ones will be shortlisted for the Round 2

Round 2: Circuit Designing: The Round 2 will be Circuit designing Round,Where the shortlisted participants will be taught to design a circuit in the circuit stimulation software. Later on they will be given a set of circuits to design in a certain amount of time .One who gets this in the earliest will be considered as winner.

OUTCOME

- 1.Students will be introduced to the electrical and electronics components.
- 2.Designing in a stimulation software will be taught.
- 3.It will also be a hands-on session along with a competition.

Venue: B215

Start Time

10:00 am

April 11, 2023

Finish Time

4:00 pm

April 11, 2023

Distinguished Lecture Programme on “Inverter topologies for drives and grid tied applications”



The IEEE IES NHCE Student Branch Chapter from Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru is organizing the Distinguished Lecture Programme on “Inverter topologies for drives and grid tied applications” on 13th April 2023, Thursday, between 10:00 AM to 12:00 PM in association with IEEE Industrial Electronics Society Bangalore Chapter at Falconry Hall, NHCE Bengaluru. This lecture provides an Inverter topology for drives and grid tied applications.

Start Time

10:00 am

April 13, 2023

Finish Time

12:00 pm

April 13, 2023

Distinguished Lecture Program on “One-Cycle Control and Its Application for Stabilizing Power Grids with High Renewable Penetration


**NEW HORIZON
COLLEGE OF ENGINEERING**
 Department of Electrical and Electronics Engineering
 IEEE Power Electronics Society NHCE Student Branch Chapter (Geo-Code is SBC66131)
 &
 IEEE Power Electronics Society Bangalore Chapter





Jointly Organizing

IEEE PELS Distinguished Lecture

One-Cycle Control and Its Application for Stabilizing Power Grids with High Renewable Penetration



Dr. Keyue Smedley
 Distinguished Lecturer -
 IEEE Power Electronics Society
 &
 Professor
 Department of Electrical Engineering and
 Computer Science
 University of California
 Irvine, CA 92697, USA



12th May 2023, Friday



IST, 09:30 AM – 11:30 AM



Google Meet Link :
meet.google.com/iby-ocfx-nvt

Organizing Committee

Ms. Anitha A Assistant Professor Coordinator	Dr. Vinoth Kumar K Advisor – IEEE IES NHCE SBC Organizing Secretary	Dr. Sujitha S HoD EEE Convenor
Dr. R.J. Anandhi Dean Academics	Dr. Sanjeev Sharma Dean QASDC	Dr. Manjunatha Principal

Registration Link : <https://forms.gle/NNrgh8CmaPeD9VK26>

Last Date of Registration : 11th May 2023

Free Registration, E – Certificates will be provided

Contact :

Ms. Aamna Nafiza
 IEEE PELS NHCE SBC Chair
 (+91 9591554317)

Ms. Harshika
 IEEE PELS NHCE SBC Vice-Chair
 (+91 9523728875)



IEEE Power Electronics Society NHCE Student Branch Chapter of Electrical & Electronics Engineering Department, NHCE in association with IEEE PELS Bangalore Chapter is planning to organize a Distinguished Lecture Program on “One-Cycle Control and Its Application for Stabilizing Power Grids with High Renewable Penetration” for the benefit of students, research scholars and faculties of NHCE and other External Institutions through Virtual mode. The objective of this programme One-Cycle Control and Its Application for Stabilizing Power Grids with High Renewable Penetration – One-Cycle Control (OCC) is a nonlinear control technique for switching converters. It achieves pulse-width modulation (PWM) by comparing the average value of a switched variable to a reference to ensure equality in each switching cycle. OCC enables precise control of a converter’s dynamics in one switching cycle, making it suitable for solving complex control equations. Precision, speed, universality, and simplicity are the most notable features of OCC. In fact, OCC is by far the fastest control reported for power converters.

One worth-noting example of OCC is its ability to realize four-quadrant universal control of three-phase inverters, which allows an inverter to perform power factor correction (PFC) rectification, inverting, dynamic VAR compensation (DVC), active power filtering (APF), or any combination of these functions. Using OCC, these complex control tasks can be achieved with a

simple control circuit, offering ultrafast and powerful power conversion for modern grids, electric vehicles, more electric aircraft, and other areas of applications.

In this presentation, Dr. Smedley will explore the application of the OCC dynamic VAR compensator (DVC) to address the increasing instability of power grids in high renewable penetration scenarios. The present power grid is already under significant stress due to lagging infrastructure updates in response to the growing demand for electricity. This issue is compounded by the intermittent and rapid transients of renewable energy sources. For instance, in circuits with a decent amount of solar penetration (even 10-15%), voltage changes can occur rapidly due to passing clouds, causing systems to switch on and off frequently. The traditional grid equipment for voltage regulation will wear out much more quickly, making the adoption of renewables an expensive prospect. VAR compensation is a well-established Flexible AC Transmission System (FACTS) method for stabilizing voltage.

However, to handle the rapid transients of renewable energy, much faster speed is required. The OCC method has demonstrated exceptional VAR speed for mitigating the impact of intermittency in renewable energy output and other disturbances. OCC-DVC provides a solution to enhance the grid's flexibility and resilience.

Start Time

9:30 am

May 12, 2023

Finish Time

12:30 pm

May 12, 2023

Expert Lecture on “Electrolyzers and the future of Hydrogen Economy”

The poster is for an expert lecture organized by the IEEE IES NHCE Student Branch Chapter, Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru. The lecture is on Friday, 26th May 2023, from 2:00 PM to 4:00 PM IST, at venue B201. The resource person is Mr. Vishal Anand A G, Chair of IEEE IES Bangalore Chapter Section & Director of Engineering at Bloom Energy (I) Pvt Ltd, Bengaluru, India. The poster lists the organizing committee members: Dr. Vinoth Kumar K (Advisor - IEEE PES NHCE SBC, Organizing Secretary), Dr. Sujitha S (HoD EEE NHCE, Convenor), Dr. R.J. Anandhi (Dean Academics NHCE), Dr. Sanjeev Sharma (Dean QASDC NHCE), and Dr. Manjunatha (Principal NHCE). It also lists coordinators: Mrs. Karthika M, Sr. Assistant Professor, EEE, NHCE and Mr. Kartheek Vankadara, Assistant Professor, EEE, NHCE. Contact information for Ms. Harshika and Mr. Shashank Joshi is provided. The registration link is <https://forms.gle/k3TCPhfJxurkbxb9>, with a last date of registration of 25th May 2023. Free registration and certificates will be provided.

NEW HORIZON COLLEGE OF ENGINEERING
Department of Electrical and Electronics Engineering

IEEE IES NHCE
Student Branch Chapter

IEEE PES NHCE SBC
New Horizon College of Engineering

Industrial Electronics Society
New Horizon College of Engineering

IEEE IES Bangalore Chapter

IEEE POWER ELECTRONICS SOCIETY
Bengaluru Chapter

Organizing
EXPERT LECTURE ON
ELECTROLYZERS AND THE FUTURE OF HYDROGEN ECONOMY

Mr. Vishal Anand A G
Chair, IEEE IES Bangalore Chapter Section &
Director of Engineering, Bloom Energy (I) Pvt Ltd,
Bengaluru, India

26th May 2023, Friday **IST, 2:00 PM - 4:00 PM**

venue : B201

Organizing Committee

Dr. Vinoth Kumar K
Advisor – IEEE PES NHCE SBC
Organizing Secretary

Dr. Sujitha S
HoD EEE NHCE
Convenor

Dr. R.J. Anandhi
Dean Academics NHCE

Dr. Sanjeev Sharma
Dean QASDC NHCE

Dr. Manjunatha
Principal NHCE

Coordinators :
Mrs. Karthika M, Sr. Assistant Professor, EEE, NHCE
Mr. Kartheek Vankadara, Assistant Professor, EEE, NHCE

Contact :
Ms. Harshika
IEEE PES NHCE SBC Vice-Chair
(+91 9523728875)
Mr. Shashank Joshi
IEEE IES NHCE SBC Chair
(+91 9916147248)

Registration Link <https://forms.gle/k3TCPhfJxurkbxb9>
Last Date of Registration : 25th May 2023
Free Registration, E – Certificates will be provided

IEEE IES NHCE Student Branch Chapter, Department of Electrical and Electronics Engineering, New Horizon College of Engineering, Bengaluru organizes the Expert Lecture on “Electrolyzers and the future of Hydrogen Economy” on Friday, 26th May 2023, from 02:00 PM to 04:00 PM in association with IEEE IES Bangalore Chapter. Mr. Vishal Anand A G, Chair, IEEE IES Bangalore Chapter Section & Director of Engineering, Bloom Energy (I) Pvt Ltd, Bengaluru, Karnataka, India will be the resource person for the event.

Start Time

2:00 pm

May 26, 2023

Finish Time

4:00 pm

May 26, 2023

“Empowering Nation Empowering Earth” – Green Energy Marathon (An Awareness campaign) by Green Energy Club and Jalaposhan NGO



IEEE Industrial Electronics Society | IEO | 75 Azadi Ka Amrit Mahotsav | IEEE POWER ELECTRONICS SOCIETY | IEEE NICE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



GREEN ENERGY CLUB &
JALAPOSHAN NGO

Jointly Presents

**“EMPOWERING NATION,
EMPOWERING EARTH”**



GREEN ENERGY MARATHON
(AWARENESS CAMPAIGN PROGRAM)

CONVENOR
Dr. SUJITHA.S
HOD- EEE

FACULTY COORDINATOR
Mr. VINOD KUMAR S
Senior Assistant Professor

FOR REGISTRATIONS



Student Coordinators
VAISHNAVI D : 79755 24650
SRINIVAS : 89715 96709

Date: 07/06/2023

Time: 9:00 AM onwards

Venue: Jakkur lake

The department of Electrical & Electronics Engineering is organizing an event by The Green Energy Club and Jalaposhan NGO – “Empowering Nation Empowering Earth” – Green Energy Marathon (An Awareness campaign) at Jakkur lake on 07.06.2023 from 9am onwards.

Start Time

9:00 am

June 7, 2023

Finish Time

4:00 pm

June 7, 2023

Industry 4.0 Revolution Workshop Beyond Automation



The department of Electrical & Electronics Engineering is organizing a hands-on workshop in association with Green Energy Club and CODENPLAY Robotics “Industry 4.0 Revolution Workshop” Beyond Automation at The Schneider Centre of Excellence, NHCE on 10.06.2023 from 9AM onwards. Resource Person- Dr. Manikandan P Chief Technology Officer CODENPLAY Robotics Bengaluru will share insightful thoughts.

Start Time

9:00 am

June 10, 2023

Finish Time

5:00 pm

June 10, 2023

ACHIEVEMENTS

MAGNOVITE



Students won the competition “OHM-AZING BUILDATHON” in the intercollegiate fest “MAGNOVITE” at Christ University, Kengeri

Two teams of EEE department participated in an intercollegiate fest “MAGNOVITE” at Christ University Kengeri both teams won the competition “OHM-AZING BUILDATHON”

Team 1 (First Price Rs.7000)

Participants :

Dheeresh Vijay Devadiga

Tejashree T

Dony Snehit P

Harshika

Team 2 (Second Price Rs.3000)

Participants :

Dayas A Dixen

Tantapureddi Haritha

Harshitha K

INFINITY



The students of Electrical & Electronics Engineering, NHCE had participated and won 3 prizes (11,000/- cash prize total) in an intercollegiate fest “INFINITY” at Jain University, Bengaluru on 18th April 2023.

Mr. Dheeresh Vijay Devadiga (1NH21EE402), 6th semester EEE, won First Price (Cash amount of Rs.3000) in the event Electro Socket.

Mr. Dheeresh Vijay Devadiga(1NH21EE402), Ms. Tejashree (1NH20EE118), Mr. Dony Snehit P (1NH20EE035), Ms. Haritha T (1NH20EE117), 6th semester EEE, won First Price (Cash amount of Rs.4000) in the event Escape Room.

Mr. Dheeresh Vijay Devadiga (1NH21EE402) and Mr. Dony Snehit P (1NH20EE035), 6th semester EEE won First Price (Cash amount of Rs.4000) in the event Electrothon.

VERTECHX



Six students of 6th semester EEE Department participated in the Intercollegiate Event VERTECHX organized by MVJ College Of Engineering in the event CIRCUTRIX. They participated as 2 teams and won cash prize of Rs. 7500 and Rs. 4000 each.

Team 1 –

1. Dheeresh Vijay Devadiga (1NH21EE402)
2. Tejashree T (1NH20EE118)
3. Dony Snehit P (1NH20EE035)
4. Haritha T (1NH20EE117)

Team 2 –

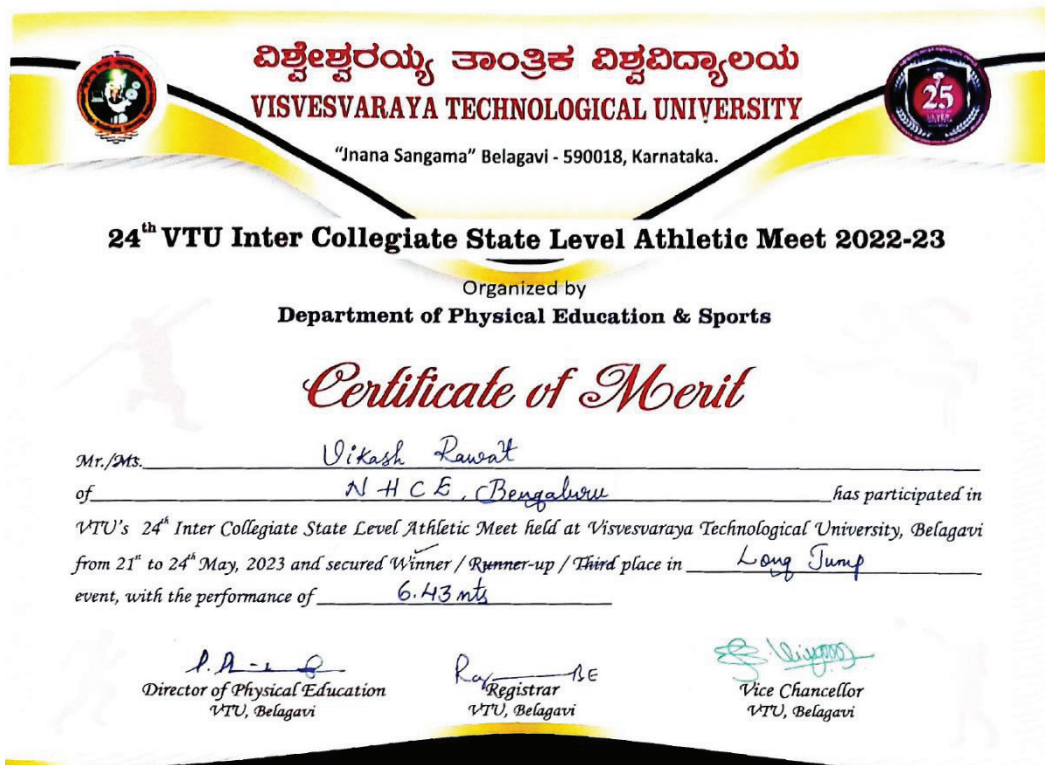
1. Dayas A Dixen (1NH20EE029)
2. Harshitha K (1NH20EE039)

SPORTS ACHIEVEMENTS

LONG JUMP



Vikash Rawat
6th semester EEE department
First place in Long Jump in the
24th VTU State - Level annual athletics meet
held at VTU Belagavi



Cricket Zone Tournament



Date: 02/03/2023-14/03/2023

Location: Bangalore

Achievement: Runner up in Cricket Zone Tournament, VTU.



Date: 02/03/2023-14/03/2023

Location: Bangalore

Achievement: Runner up in Cricket Zone Tournament, VTU

Industry Skill Lab



INTERNATIONAL COLLABORATIONS



INDUSTRY COLLABORATIONS



Student Clubs

CO-CURRICULAR CLUBS



Aerobots Club



Business & Information Technology Club



Cybersecurity & Ethical Hacking Club



Data Analytics Club



ED & Start Up Club



Emsys Club



Evolve.AI



Foss Club



Green Energy Club



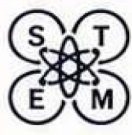
Healthxcel Club



Innovation Club



Robohorizon Club



STEM Club



Tech Forge Club



Mobile App Development Club

EXTRA CURRICULAR CLUBS



Rotaract NHCE



Dance Club



Music Club



Art Club



Literary Club



TEDx Club



NSS Club



Socio-Political Club



Fitness Club



Media Club



Fashion Club



Leo Club



Green Warriors



Drama Club



Alumni Club

SPORTS CLUBS



Volley Ball Club



Basket Ball Club



Badminton Club



Kabaddi Club



Football Club