



BUILDERS ENGINEERING COLLEGE

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

ISO 9001:2015 Certified Institution & Accredited by NAAC with B++ Grade

Erode Road, Nathakadaiyur, Kangeyam, Tirupur - 638 108, Tamil Nadu.

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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NEWS LETTER



Genesis:

The Department of Electrical and Electronics Engineering was started in the year 2010 and offers BE EEE programme in tune with the syllabi of Anna University. The department aims to develop electrical engineers who are innovative, entrepreneurial, and equipped to become global leaders in research and technology. The department has well qualified faculty members who are specialists in the fields of Power Electronics and Drives, VLSI Design, Applied Electronics and Power Engineering and Management. The faculty team includes a doctorate serving for the betterment of the students. The department has well equipped laboratories. The department provides an environment to students in such a way that they will be able to understand the core concepts including Electrical machines, Circuits and Networks, Power systems, Power Electronics, Electromagnetic theory, Instrumentation, Microprocessors and Microcontrollers and Electron Devices & Circuits.

Highlights:

- ◆ Facilitating students to acquire core competency in the field of electrical and electronics engineering
- ◆ Well Equipped Laboratories
- ◆ Well Equipped KGI's Tech Center
- ◆ Well Qualified and Experienced Faculty team
- ◆ One to one Mentoring for Professional Developments
- ◆ Internship with Stipend
- ◆ MOU's with Leading Industries
- ◆ Collaborating with Industry to provide Engineering solutions
- ◆ Excellent Placement record in Core & IT
- ◆ Smart Class Rooms
- ◆ Academic Incentives for Toppers

Vision:

To become a front-runner in moulding the students globally competent, knowledgeable electrical engineers also as performers in the roles of innovators, researchers and entrepreneurs.

Mission

To nurture the students with sound technical knowledge to meet the upcoming challenges in electrical domain and to enhance competitiveness of the graduates for higher studies.

Program Educational Objectives (PEOs):

- ◆ Shall flourish in their professional careers, further education, research, or as entrepreneurs.
- ◆ Must always learn new things and hone existing abilities to create solutions that have a big impact and are cutting-edge in terms of energy use.
- ◆ To create and build practical, multidisciplinary solutions that are technically sound, commercially viable and socially acceptable, graduates must have strong communication skills, a professional demeanour and ethical behaviour.

Programme Specific Outcomes (PSO):

- ◆ To understand the concepts of Electrical and Electronics Engineering and fundamental sciences to analyze and implement in research field.
- ◆ To take up roles in interdisciplinary projects, develop managerial skills and contribute towards the electrical community globally.

Events:

- ◆ Association Activities - AEEE - KRATU (The Power)
- ◆ Students Activities
 - Co - Curricular
 - Extra - Curricular

About the Institution

Builders Engineering College (Formerly known as Erode Builder Educational Trust's Group of Institutions) was established by Erode Builder Educational Trust (EBET) in the year 2009 as an integrated campus and presently functioning as a technical campus. It offers six UG Programmes (BE - Civil, CSE, ECE, EEE, Mechanical and B.Tech - AI&DS) with an intake of 330 students and four PG Programmes (ME - CEM, STR, CSE and MBA) with an intake of 114 students. Stepping into the fourteenth year of service, the Management, CEO, Principal and faculty members are committed to elevating the lives of budding rural aspirants through academics and research. The Chief Patrons are the pioneers in the field of infrastructure and construction all over India.

Vision

To be the most preferred knowledge provider.

Mission

Builders Engineering College endeavors to prepare rural students for successful career through academic and applied research.

INSIDE THIS ISSUE

- About the Department
- From Principal's Desk
- From HoD's Desk
- From Editor's Desk
- Association Activities
- Faculty Development Program



EDITORS IN CHIEF

Dr. S. Saravanan
Head of the Department

Dr. R. Palanisamy
Associate Professor

STUDENT EDITORS

Mr. C. Arunkumar
IV Year

Mr. S. Kapildev
IV Year

Mr. Y. Sruthi
III Year

Mr. M. Dhivya
III Year

Mr. A. Arunkumar
II Year

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Builders Engineering College,
Nathakadaiyur, Kangeyam Tk., Tirupur Dt.,
Tamilnadu, India - 638 108.

Electrifying the
Next-gen **ENGINEERS**



From **PRINCIPAL'S DESK**

Dear Builders Engineering College Community,

I am delighted to address you all through our latest newsletter as we embark on another exciting chapter in the life of our institution.

As we navigate the ever-changing landscape of education, I am continually inspired by the dedication, resilience, and innovation displayed by our students, faculty, staff, and parents. Together, we have overcome numerous challenges and celebrated countless achievements, reaffirming our collective commitment to excellence in all endeavors.

This past year has been a testament to our community's strength and adaptability in the face of adversity. Despite the uncertainties and disruptions brought about by external circumstances, we have remained steadfast in our pursuit of academic excellence, personal growth, and community engagement.

I am incredibly proud of the creativity and ingenuity demonstrated by our students and the unwavering support provided by our faculty and staff. Through innovative teaching methodologies, immersive learning experiences, and a culture of collaboration, we continue to nurture the next generation of leaders, thinkers, and change makers.

As we look ahead to the future, I am filled with optimism and excitement for the opportunities that lie ahead. Together, let us seize the moment, embrace new challenges, and continue to strive for excellence in all that we do.

I would like to take this opportunity to express my deepest gratitude to each and every member of our community for your hard work, dedication, and resilience. Your contributions are invaluable, and they serve as the foundation upon which our success is built.

In closing, I want to reaffirm my unwavering commitment to serving our community with integrity, compassion, and excellence. Together, let us continue to uphold the values that define us and work towards a future filled with promise and possibility.

Thank you for your continued support and partnership. Here's to another year of growth, achievement, and success!

Warm regards,

Dr. S. Gopalakrishnan
Principal



From **HoD's DESK**

Dear Builders Engineering College Community,

It is with great pleasure that I address you all through our latest newsletter, highlighting the accomplishments and endeavors of the Electrical and Electronics Engineering (EEE) Department.

As the Head of the EEE Department, I am continuously impressed by the dedication, creativity, and passion displayed by our faculty, staff, and students. Together, we have fostered an environment that encourages innovation, exploration, and collaboration, resulting in groundbreaking research, impactful projects, and academic excellence.

Our department remains at the forefront of technological advancements, with faculty members spearheading cutting-edge research in areas such as renewable energy, artificial intelligence, and telecommunications. Through their expertise and mentorship, our students have the opportunity to engage in hands-on learning experiences, develop practical skills, and contribute to meaningful projects that have real-world applications.

I am particularly proud of the interdisciplinary collaborations within our department, as we work closely with industry partners, other academic departments, and research institutions to address complex challenges and drive innovation. These partnerships not only enrich the educational experience for our students but also enhance the impact of our research and outreach efforts.

As we look towards the future, I am excited about the opportunities that lie ahead for our department. With a continued focus on excellence, innovation, and community engagement, I am confident that we will further solidify our position as leaders in the field of Electrical and Electronics Engineering.

I would like to extend my sincere gratitude to our faculty, staff, students, and alumni for their contributions to the success of our department. Your dedication and commitment are truly commendable, and they serve as the driving force behind our continued progress and achievements.

Thank you to our broader [School/College] community for your ongoing support and partnership. Together, let us continue to push the boundaries of knowledge, inspire future generations, and make a positive impact on society.

Warm regards, ,

Dr. S. Saravanan
HoD

From **EDITOR's DESK**

Dear Readers,

Welcome to the latest edition of our newsletter! As we dive into the stories, updates, and insights featured in this issue, I am thrilled to connect with you once again and share the latest happenings from our community.

In today's fast-paced world, staying informed and connected is more important than ever. Through this newsletter, we aim to provide you with valuable information, thought-provoking content, and engaging stories that reflect the diverse interests and achievements of our community.

From spotlighting inspiring individuals and showcasing innovative projects to sharing important announcements and upcoming events, our newsletter serves as a platform to celebrate our collective successes and foster meaningful connections.

I would like to express my gratitude to all our contributors, writers, editors, and designers who have dedicated their time and expertise to bring this newsletter to life. Your passion and dedication are truly commendable, and I am grateful for the opportunity to work alongside such talented individuals.

As we continue to evolve and grow, I encourage you to share your feedback, ideas, and suggestions with us. Your input is invaluable in shaping the future direction of our newsletter and ensuring that it remains a valuable resource for our readers.

Thank you for your continued support and enthusiasm. Together, we can make our newsletter an even more vibrant and engaging platform for sharing stories, ideas, and insights that matter.

Happy reading!

Warm regards,

Mr. C. Arunkumar

IV - EEE

Mr. M. Dhivya

III - EEE

Mr. A. Arunkumar

II - EEE

Mr. S. Kapildev

IV - EEE

Mr. Y. Sruthi

III - EEE

Association **ACTIVITIES**



Inauguration of Association of Electrical and Electronics Engineering & Green Energy Club

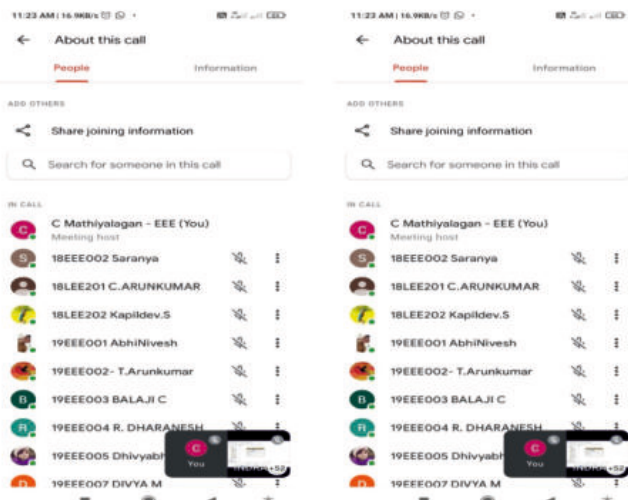
27th September
2021

Chief Guest :

Er. S. SIVA SUBRAMANIAN B.E., M.I.E.
Executive Engineer (Retd), TNEB

Monday
@ 2.30pm

Google Meet Link : <https://meet.google.com/yvh-idhv-bfg>



KRATU '21

The "Inauguration of the Association of Electrical and Electronics Engineering (KRATU '21) and Green Energy Club" event, held on September 27, 2021, featured a welcome address by Ms. Divyabharathi, the Joint Secretary of AEEE and a third-year EEE student, an address by Dr. S. Gopalakrishnan, the Principal of BEC, and concluded with a vote of thanks delivered by Ms. P. Loganayaki, a second-year EEE student.

Energy Conservation

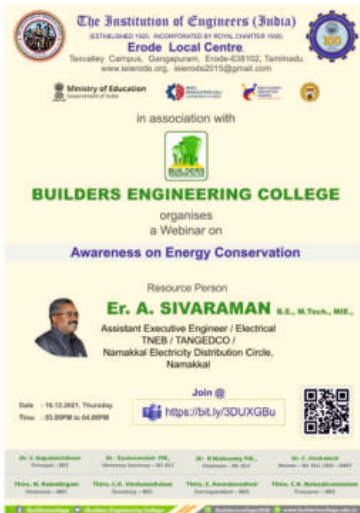
On December 14, 2021, in observance of Energy Conservation Day, a webinar on the topic of energy conservation was conducted. The event featured Mr. E. Thiruneelakandan, a JE/Special Maintenance from the Erode Electricity Distribution Circle, TANGEDCO/Erode, as the speaker. This webinar likely aimed to raise awareness and educate participants about the importance of conserving energy.

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Association of Electrical and Electronics Engineering
has cordially invite you for the webinar on
Energy Conservation
(National Energy Conservation Day 2021)

Resource Person:
Mr.E.Thiruneelakandan
JE/Special Maintenance
Erode Electricity Distribution Circle
TANGEDCO/Erode

Conserve Energy and Save the Future
[Google Meet Link:meet.google.com/vrn-pkoj-bka](https://meet.google.com/vrn-pkoj-bka)
14.12.2021
Tuesday
@ 3.00 PM



Awareness on Energy Conservation

On December 16, 2021, a webinar titled "Awareness on Energy Conservation" was conducted. The event included a presentation by Er. A. Sivaraman, an AEE from TANGEDCO, NEDC, Namakkal, and an introduction to the program by Dr. S. Saravanan, the Head of the Electrical and Electronics Engineering Department (HoD /EEE). The webinar likely aimed to raise awareness and educate participants about energy conservation practices.

Faculty DEVELOPMENT PROGRAMMES

- Dr. S. Saravanan, the Head of the Electrical and Electronics Engineering Department (HoD/EEE), attended a webinar titled "Electrical Testing of Transformers" at Sri Sivasubramaniya Nadar College of Engineering in Chennai on October 27, 2021. This webinar likely focused on the testing and evaluation of transformers in the field of electrical engineering.
- Mr. M. Prakash attended a One-Week National Level Webinar on "Challenging Thrust Areas of Bioscience and Bioengineering" organized by the Department of Biotechnology at VSB Engineering College, Karur, from November 29, 2021, to December 3, 2021. This webinar likely focused on significant and current topics within the field of bioscience and bioengineering.
- Mrs. R. Saranya, an Assistant Professor in the Electrical and Electronics Engineering (AP/EEE) department, attended a webinar on "NexGen Innovative Applications - Drone Technology" hosted by IEI - ELC and BEC - IIC on December 1, 2021. This webinar likely covered the latest innovative applications of drone technology.
- Dr. S. Saravanan, the Head of the Electrical and Electronics Engineering Department (HoD/EEE), attended the webinar on "NexGen Innovative Applications - Drone Technology" at Builders Engineering College on December 11, 2021. This webinar likely focused on the advancements and applications of drone technology in various fields.
- Ms. T. Vinitha, an Assistant Professor in the Electrical and Electronics Engineering (AP/EEE) department, attended a webinar on "NexGen Innovative Applications - Drone Technology" at Builders Engineering College on December 11, 2021. This webinar likely focused on the latest innovative applications of drone technology in various fields.

- Mr. M. Prakash, an Assistant Professor in the Electrical and Electronics Engineering (AP/EEE) department, attended the AICTE Training and Learning Academy (ATAL) Online Elementary Faculty Development Program (FDP) on "Recent Advances in Composites and Nano Materials" at Dr. Ambedkar Institute of Technology from December 13, 2021, to December 17, 2021. This program likely provided insights into the latest developments in composites and nanomaterials.
- Dr. S. Saravanan, Head of the Electrical and Electronics Engineering Department (HoD/EEE), attended the International Workshop on Energy Technology and Sensor Systems organized by the University of Malaya on December 21 and 22, 2021. This workshop likely provided valuable insights and knowledge in the field of energy technology and sensor systems.

Students CORNER

Wireless Power Transfer: The Future of Electrical Energy Transmission

by *Mr. S.S. Sakthivel, IV Year*

Wireless power transfer (WPT) technology has emerged as a revolutionary innovation in the field of electrical engineering, promising to reshape the way we transmit and distribute electrical energy. Unlike traditional wired systems that rely on physical connections, WPT enables the transmission of power over distances without the need for wires or cables, offering unparalleled convenience, efficiency, and versatility.

At its core, wireless power transfer is based on the principle of electromagnetic induction, wherein electricity is transferred between two coils through magnetic fields. The transmitter coil generates an oscillating magnetic field, which induces a current in the receiver coil, thereby enabling the transfer of electrical energy wirelessly.

One of the most prominent applications of wireless power transfer is in consumer electronics, where it eliminates the need for cumbersome charging cables and connectors. Wireless charging pads and stations have become increasingly popular for charging smartphones, tablets, and wearable devices, offering a convenient and hassle-free charging experience.

Moreover, wireless power transfer holds immense potential for various other applications, including automotive, healthcare, and industrial sectors. In the automotive industry, WPT technology is being

explored for electric vehicle charging, enabling efficient and convenient charging without the need for physical contact between the vehicle and the charging station.

In the healthcare sector, wireless power transfer has the potential to revolutionize medical device technologies, such as implantable devices and wearable health monitors. By eliminating the need for battery replacements or wired connections, WPT technology can enhance patient comfort, mobility, and safety.

Furthermore, in industrial applications, wireless power transfer can be used for powering sensors, actuators, and other electronic devices in harsh or hard-to-reach environments where traditional wiring may be impractical or hazardous.

While wireless power transfer holds immense promise, there are still challenges to overcome, including efficiency, range, and standardization. Researchers and engineers are actively working to improve the efficiency of WPT systems, optimize transmission distances, and establish industry standards to ensure interoperability and compatibility across different devices and applications.

In conclusion, wireless power transfer represents a transformative technology with the potential to revolutionize the way we transmit and distribute electrical energy across various sectors. As research and development efforts continue to advance, wireless power transfer is poised to play a pivotal role in shaping the future of electrical engineering, ushering in a new era of wireless connectivity, convenience, and sustainability.