BUILDERS ENGINEERING COLLEGE

A NEWSLETTER OF

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT - VISION & MISSION

VISION

To be an updated technocrat in the field of Electronics and Communication Engineering.

MISSION

Preparing rural students for successful career through creative thinking and knowledge application

CONTENTS

Vision of the Institution

To be the most preferred knowledge provider.

Mission of the Institution

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

About the Department

Established in 2009, the Department commenced with an initial intake of 60 students. It boasts 10 fully-equipped laboratories, each adhering to university norms and furnished with cutting-edge technology.

The ECE Computer Centre provides students access to special software packages such as MENTOR GRAPHICS, PSPICE, MATLAB, Xilinx ISE, MULTISIM, MODELSIM, and KIEL.

The department stands out with its distinctive offerings, including advanced trainer kits, ARM Processors, Altera development boards, CPLD Trainer kits, and Wireless Sensor Networks trainer kits. These resources empower students to engage in real-time projects and practical learning experiences.

The department actively engages with professional bodies such as IEEE, IETE, and ISTE, providing a valuable platform for both faculty members and students. Additionally, an incubation centre has been established to foster and cultivate a culture of innovation, particularly in the realm of IoT systems, utilizing LoRaWAN technology.
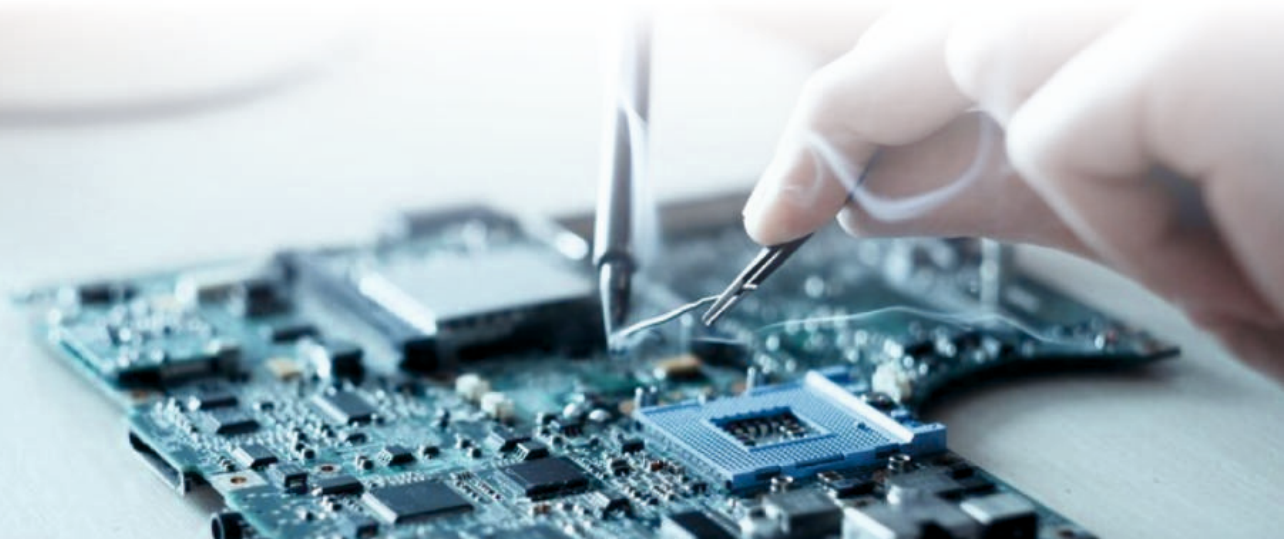
Programme Specific Outcomes (PSOs)

- To design and develop complex systems in the research areas of next generation Communication Systems, RF and Power systems.

- To design and develop systems in the domains of IoT based Embedded Systems, Advanced Signal and Image Processing and latest Semiconductor technologies.

Program Educational Objectives (PEOs)

- Shall be successful in their professional careers, academic pursuits and research

- Shall study and build abilities on a continual basis in order to deliver high-impact, energy-efficient and futuristic solutions

- Shall demonstrate strong communication skills, a professional mindset and ethics in order to create and build real-world multidisciplinary solutions that are technically sound, economically feasible, and socially acceptable.

Principal's Message

Builders Engineering College takes immense pride and satisfaction in presenting the Newsletter, issued by the Department of ECE. The College has achieved remarkable progress across academic and non-academic spheres, as well as in capacity-building endeavors for both staff and students. I am optimistic that this edition of the Department Newsletter will resonate positively with faculty, students, and enthusiasts of technical education and technology-driven activities.

I extend my congratulations to the Editorial Board of the Newsletter, whose exceptional efforts have resulted in its timely completion.

I would like to express my sincere gratitude to Dr. S. Kumar, HoD/ECE, whose guidance has been instrumental in the successful execution of this technical endeavor within the designated timeframe.

Furthermore, I offer heartfelt congratulations to the staff members and students for their valuable contributions.

Dr. S. Gopalakrishnan
Principal

Words from Head of the Department

Dear Members of ECE community,

I am delighted to express my congratulations on the unveiling of the Electronics and Communication Engineering (ECE) Newsletter. This publication stands as a testament to the remarkable progress achieved in diverse realms, covering both academic and non-academic spheres. It also highlights the ongoing development of capabilities relevant to our esteemed staff and students. I commend the Editorial Board for their praiseworthy role in accomplishing this task with remarkable efficiency and within a record timeframe. I extend my sincere gratitude to Mr. U. Rajasekaran, AP/ECE for providing invaluable guidance.

My warmest congratulations to the dedicated staff members and enthusiastic students who have invested their time and effort into bringing this newsletter to life. Your collective contributions have undeniably played a pivotal role in the success of this publication.

Dr. S. Kumar
Head of the Department

Editor's Desk

Dear Esteemed Readers,

Welcome to the latest issue of our Electronics and Communication Department Newsletter! We extend warm greetings to all our readers. As we journey through the dynamic realm of technology, we are thrilled to share with you the most recent developments, successes, and exciting projects emerging from our department. Stay informed and inspired as we explore the evolving landscape of electronics and communication together.

We take great pride in spotlighting the remarkable accomplishments of both our students and faculty, individuals who consistently push the boundaries of knowledge, contributing significantly to the progress of our field.

Our dedication to cultivating a collaborative and forward-thinking community is evident in the diverse array of events and activities showcased in this newsletter. Ranging from enlightening guest lectures by industry experts to hands-on workshops and invigorating hackathons, our goal is to furnish our students with opportunities to confront real-world challenges and elevate their skill sets.

As we embark on another semester brimming with promise and potential, we extend our sincere gratitude to our devoted faculty, spirited students, and the supportive community that surrounds us. Together, we are actively shaping the future of electronics and communication, and we are genuinely thrilled to have you accompany us on this journey.

Thank you for your unwavering interest and support. We trust you will find enjoyment in perusing this edition of our newsletter and encourage you to stay tuned for further updates from the Electronics and Communication Department.

Mr. U. Rajasekaran, AP/ECE
Managing Editor

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PROGRAM ORGANISED

Renewable Energy – Opportunities & Key Challenges

August 26, 2021

The "Renewable Energy – Opportunities And Key Challenges" webinar, hosted by the Student Association "GNAANA" and ISTE on August 26, 2021, featured Dr. Pandiyarasan Veluswamy from SMILE Research Lab at IIITDM Kancheepuram. Dr. Veluswamy discussed renewable energy aspects, including opportunities and challenges, aligning with crucial Program Outcomes (PO) for engineering students' holistic development. The session emphasized research-based knowledge cultivation, exploring societal and environmental impacts beyond technical aspects. Participants engaged with renewable energy complexities, ethical considerations, and environmental sustainability, fostering well-rounded and responsible engineering perspectives.

Let's Learn Arduino

September 02, 2021

The event "Let's Learn Arduino," held on September 2, 2021, by the Student Association "GNAANA" and ISTE, featured Mr. Sriman Balaji, CEO of Rajan Robotics, as the resource person. With expertise in robotics and Arduino technology, Mr. Balaji empowered participants with hands-on experience and comprehensive understanding of Arduino. The event aimed to foster practical skills and technological exploration among engineering students, aligning with Program Outcomes of engineering education. Through interactive sessions and practical demonstrations, participants delved into Arduino intricacies and enhanced communication skills. The collaborative effort between student associations and the resource person ensured a successful learning experience, promoting solution design and problem investigation using Arduino.
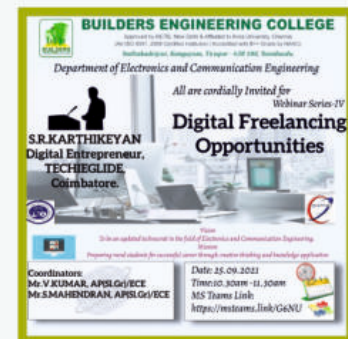
Raspberry Pi - The Low-cost Computer & Its Role on Internet of Things (IoT)

September 09, 2021

In the academic year 2021-22, the Student Association "GNAANA" and ISTE hosted the event "Raspberry Pi - The Low-cost Computer & its Role on Internet of Things (IoT)" on September 9, 2021. Mr. U. Uma Maheswaran, Proprietor-Managing Director of Spectrum InfoTech, led the session, sharing valuable insights into Raspberry Pi's significance in IoT. The event aimed to align with Program Outcomes, emphasizing solution design, problem investigation, teamwork, and communication skills in engineering. Participants gained practical knowledge about Raspberry Pi's applications, fostering a deeper understanding of emerging technologies in engineering through collaboration with Mr. Maheswaran.

Digital Freelancing Opportunities

September 25, 2021

On September 25, 2021, the Student Association "GNAANA" and ISTE co-hosted the event "Digital Freelancing Opportunities," featuring Mr. S.R. Karthikeyan, a Digital Entrepreneur from Techieglide in Coimbatore, as the resource person. The event centered on Program Outcomes 10 and 12, emphasizing communication skills and lifelong learning. Mr. Karthikeyan provided insights into digital freelancing, highlighting diverse opportunities in the digital landscape. Participants gained understanding of effective communication in freelancing and the importance of continuous learning. The collaboration enabled students to navigate the dynamic world of digital freelancing, empowering them with essential knowledge and skills for success.

Role of Medical Imaging in Disease Identification & Treatment Planning

October 23, 2021

In the academic year 2021-22, on October 23, 2021, the Student Association "GNAANA" and ISTE collaborated to host a session titled "Role of Medical Imaging in Disease Identification & Treatment Planning." Led by Dr. C. Gowri Shankar, Professor at K.S.R. College of Engineering, the session focused on Program Outcome, emphasizing research-based knowledge in medical imaging for disease diagnosis and treatment. Dr. Shankar's expertise facilitated an insightful discussion on medical imaging's pivotal role in healthcare. Participants gained valuable insights into the integration of engineering principles and medical applications, enhancing their understanding of medical imaging's contributions to disease diagnosis and treatment strategies.

MoU's SIGNED

Innovatus Systems
December 02, 2021

On December 02, 2021, Builders Engineering College formalized a Memorandum of Understanding (MoU) with Innovatus Systems, marking a significant collaboration between the two entities. This strategic partnership aims to foster innovation, knowledge exchange, and mutual growth opportunities in the field of engineering and technology. The MoU signing signifies a commitment to enhancing educational and professional development initiatives, leveraging each other's strengths and expertise. Through this collaboration, both Builders Engineering College and Innovatus Systems seek to cultivate a dynamic environment conducive to research, innovation, and excellence in engineering education.

Enthu Technology Solution Ind (P) Ltd.
August 23, 2021

On August 23, 2021, Builders Engineering College embarked on a transformative journey by formalizing a Memorandum of Understanding (MoU) with the Incubation Centre for IoT Knowledge Excellence. This strategic collaboration signifies a pivotal step towards fostering innovation and excellence in the realm of Internet of Things (IoT). The MoU underscores a shared commitment to harnessing cutting-edge technologies, facilitating research and development initiatives, and nurturing a conducive ecosystem for knowledge dissemination and exchange. By pooling resources and expertise, both institutions aspire to propel advancements in IoT education, industry applications, and technological innovations, thereby shaping the future of engineering and technology.

STUDENT PARTICIPATION

Date	Name of the Student	Name of the Event/Title	Organizer
16.06.2021	T.Divya	Flutter	Pantech prolabs India Pvt Ltd
17.06.2021	J.Priyadharshini	Matlab Master class	Pantech Solutions
12.07.2021	J.Dharani	Matlab Master class	Pantech Solutions
17-06-2021	Yogashree J	The fundamentals of digital marketing	Google digital garage
12-07-2021	Gokulakannan K	Electronic Circuits and PCB Design	Pantech E Learning
12-07-2021 to 16-07-2021	G.Harini	Electronic Circuits and PCB Design	Pantech E Learning
26-07-2021 to 30-07-2021	G.Harini	Arduino Programming	Pantech E Learning
12-07-2021 to 16-07-2021	Manibalan V	Basics of managing money	Train India

WORKSHOP ATTENDED

Date	Name of the Student	Name of the Event/Title	Organizer
05-05-2022	Priyadharshini B	Placement and Career Guidence	Kongu Engineering College
05-06-2021	M.Sindhiya	Quiz	Shree Venkateshwara Arts and Science College
15-08-2021	K.Gokulakannan	Quiz	Care college of engineering
31-08-2021	K.Venkatramanan	Technical Content Writer	Physics Mindboggler
22-09-2021	J.Dharani	Quiz	TANSACS
24-09-2021	N. Pavithra	Quiz	TANSACS