

BUILDERS ENGINEERING COLLEGE



A NEWSLETTER OF

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT - VISION & MISSION

VISION

To be the renowned department in creating highly talented, skilled and well-disciplined professional in Electronics and Communication Engineering.

MISSION

- Providing quality education through effective teaching learning processes.
- Focus on research and excellence in electronics and communication to nurture the spirit of innovation and creativity.
- Enabling students for successful practice of the profession by nurturing career improvements and to develop human and social intellectual qualities.

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COLLEGE VISION & MISSION

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 is delighted to present the latest edition of our Department of ECE Newsletter. This publication serves as a testament to the remarkable progress achieved by the college across academic and non-academic domains, as well as in nurturing capacity building among our esteemed staff and students. We firmly believe that this newsletter will not only inform but also inspire our readers, including those passionate about technical education and technology-driven initiatives.

I am profoundly grateful to Dr. S. Kumar, HoD/ECE, whose guidance has been pivotal in the successful completion of this technical endeavor within the allotted timeframe. Furthermore, I applaud the collective efforts of our dedicated staff members and students, whose invaluable contributions have transformed this newsletter from a concept into reality.

With warm regards and best wishes,

Dr. S. Gopalakrishnan

Principal

Words from Head of the Department

With immense pleasure, I extend a warm welcome to this edition of our Electronics and Communication Department newsletter. As the Department Head, I am thrilled to present the latest updates, achievements, and insights from our dynamic community. Our department takes great pride in its commitment to academic excellence, innovation promotion, and the cultivation of the next generation of engineers and leaders in the electronics and communication field. Through our rigorous academic programs, pioneering research endeavors, and collaborative endeavors with industry partners, we endeavor to equip our students with the knowledge, skills, and experiences essential to excel in today's dynamic and ever-evolving technological landscape. Within this newsletter, you will discover a plethora of information showcasing the outstanding contributions of our faculty members, the remarkable accomplishments of our students, and the groundbreaking research underway within our department.

Dr. S. Kumar

Head of the Department



Editor's Desk

Dear Readers,

Welcome to the latest edition of our Electronics and Communication Department Newsletter! As we navigate the dynamic and ever-evolving world of technology, we are thrilled to share with you the latest developments, achievements, and exciting projects from our department.

We are proud to highlight the accomplishments of our students and faculty, who continue to push the boundaries of knowledge and contribute to advancements in the field.

Our commitment to fostering a collaborative and forward-thinking community is evident in the various events and activities featured in this newsletter. From guest lectures by industry experts to workshops and hackathons, we strive to provide our students with opportunities to engage with real-world challenges and enhance their skills.

As we embark on another semester filled with promise and potential, we extend our gratitude to our dedicated faculty, enthusiastic students, and supportive community. Together, we are shaping the future of electronics and communication, and we are excited to have you join us on this journey.

Thank you for your continued interest and support. We hope you enjoy reading this edition of our newsletter and stay tuned for more updates from the Electronics and Communication Department.

Best regards,

Mr. U. Rajasekaran, AP/ECE
Managing Editor

Editorial Team

Editor in Chief:

Dr. S. Kumar, HoD/ECE

Managing Editor:

Mr. U. Rajasekaran, AP/ECE

Concept & Design:

Ms. V. Manimala, AP/ECE

Student-Chief Editor:

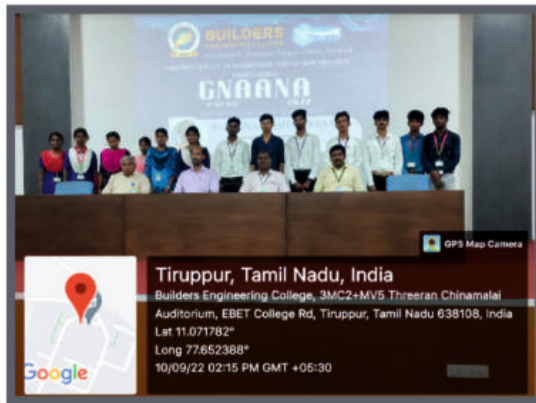
Mr. P. Ashokkumar, IV Year

Associate Editors:

Mr. V. Manibalan, IV Year

Ms. A. Gokulapriya, III Year

EVENTS ORGANIZED



Association Inauguration Function

September 10, 2022

Department of Electronics and Communication Engineering Association, conducted Association Inauguration (GNAANA '2K23) and the guest speaker delivered the guest lecture on "Importance of Mathematical Modelling in Engineering" on 10.09.2022 between 02.00 p.m. to 04.00 p.m.

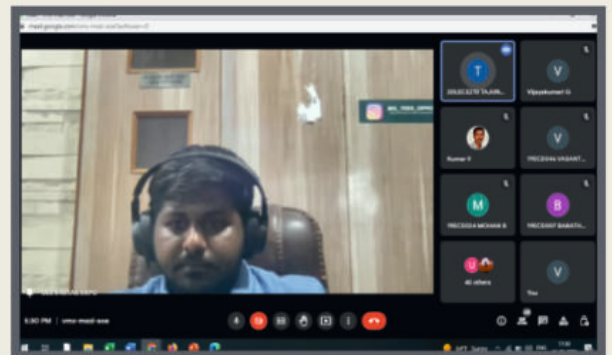
Venue: Dheeran Chinnamalai Auditorium

Guest Speaker: Er. U. Uma Maheswaran,

Guest Lecture on "Angel Investment /VC Funding opportunity for early stage Entrepreneurs"

August 12, 2022

Mrs. G. Vijayakumari, Assistant Professor, Department of Electronics and Communication Engineering, organized a session on "Angel Investment /VC Funding opportunity for early stage Entrepreneurs" on August 12, 2022.



Guest Lecture on

"My Story - Motivational Session by Successful Entrepreneur"

November 29, 2022

The Department of Electronics and Communication Engineering (ECE) and the Entrepreneurship Development Cell (EDC) have organized an event titled "My Story - Motivational Session by Successful Entrepreneur." The session is set to occur on November 29, 2022.



NPTEL CERTIFICATIONS



Mr. M. Prakash, Assistant Professor, Department of Electronics and Communication Engineering (ECE), COMPLETED a 12-week NPTEL workshop titled "Digital Circuits" from July 2022 to October 2022. This workshop was organized by the Indian Institute of Technology (IIT) Kharagpur.

S D Vijayakumar, Associate Professor in the Department of Electronics and Communication Engineering (ECE), participated in a Faculty Development Program (FDP) titled "Python for Data Science" from July 2022 to August 2022. This FDP was organized by AICTE in collaboration with NPTEL.-Elite



V.Manimala, Assistant Professor in the Department of Electronics and Communication Engineering (ECE), participated in a Faculty Development Program (FDP) titled "Python for Data Science" from July 2022 to August 2022. This FDP was organized by AICTE in collaboration with NPTEL.-Elite silver

VALUE ADDED COURSE



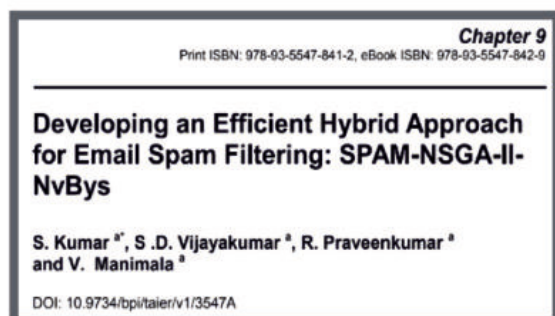
Mr. U.Rajasekaran, Assistant Professor in the Department of Electronics and Communication Engineering (ECE) conducted a 35-hour value-added course titled " PCB Designing " during the 2022-23 academic year. The course took place from the 19th of July, 2022, to the 23rd of July, 2022.

PATENT PUBLISHED

(12) PATENT APPLICATION PUBLICATION		(21) Application No.202241059487 A
(19) INDIA		
(22) Date of filing of Application :18/10/2022		(43) Publication Date : 28/10/2022
(54) Title of the invention : Solar Drier Integrated with HSU for Crops		
(51) International Classification : F26D000000, A21H000000, A61K003610000, F26D0021000000, B07Y001000000 (56) International Application No. : PCT/ Filing Date : 01/01/1900 (57) International Publication No. : NA (61) Patent of Addition to Application Number : NA Filing Date : NA (62) Divisional to Application Number : NA Filing Date : NA		(71) Name of Applicant : 1) T. Jayachandran Address of Applicant : 7136, unthukumar kovil street, padal post, Kadathoppatti 2) R. Pichia Krishnan 3) P. Gopi 4) Dr. S. Parthiban 5) P. Vinodh Kumar 6) T. Rajkumar 7) S.D. Vijayakumar 8) S. Nithya priya 9) U. Rajasekaran 10) R. Praveen Kumar 11) G. Brinda 12) R. Ramalingam Name of Applicant : NA Address of Applicant : NA (72) Name of Inventor : 1) T. Jayachandran Address of Applicant : 7136, unthukumar kovil street, padal post, Kadathoppatti 2) R. Pichia Krishnan Address of Applicant : Assistant Professor, Department of Mechanical Engineering, Nandha College of Technology, Erode, Tamilnadu 3) P. Gopi Address of Applicant : 572, Katarajar Colony, Chittoor Serrigupudi Post, Salem south, Salem, India 4) Dr. S. Parthiban Address of Applicant : Assistant Professor, Department of ECE, Nandha College of Technology, Erode, Tamilnadu 5) P. Vinodh Kumar Address of Applicant : Assistant Professor, Department of ECE, Nandha College of Technology, Erode, Tamilnadu 6) T. Rajkumar Address of Applicant : Assistant Professor, Department of ECE, Nandha College of Technology, Erode, Tamilnadu 7) S.D. Vijayakumar Address of Applicant : Associate Professor, Department of ECE, Builders Engineering College, Kangeyam, Tamilnadu 8) S. Nithya priya Address of Applicant : Assistant Professor, Department of Architecture, Kongu School of Architecture, Erode, Tamilnadu 9) U. Rajasekaran Address of Applicant : Assistant Professor, Department of ECE, Builders Engineering College, Kangeyam, Tamilnadu 10) R. Praveen Kumar Address of Applicant : Assistant Professor, Department of ECE, Builders Engineering College, Kangeyam, Tamilnadu 11) G. Brinda Address of Applicant : Assistant Professor, Department of ECE, M.P.Nachimuthu M. Jagannathan Engineering College, Erode, Tamilnadu 12) R. Ramalingam Address of Applicant : Assistant Professor, Department of Chemical Engineering, Karpagam Academy of Higher Education, Pollachi Main road, Coimbatore, Tamilnadu

In October 2022, Mr. U. Rajasekaran, Mr. S.D. Vijayakumar, and Mr. R. Praveenkumar achieved a significant milestone by publishing a patent under the number 202241059487. Titled "Solar Drier Integrated with HSU for Crops," the patent signifies a breakthrough in agricultural technology. This innovative solution aims to enhance crop drying processes by integrating solar energy with a High-Speed Unit (HSU). By harnessing renewable energy sources, the patented system offers a sustainable and efficient method for crop preservation and post-harvest management. The collaboration between these individuals underscores their commitment to advancing agricultural practices and addressing key challenges in food security and agricultural sustainability.

BOOK CHAPTER PUBLISHED



In the 2022-23 academic year, Dr. S. Kumar, Professor in the Department of Electronics and Communication Engineering (ECE), along with Mr. S. D. Vijayakumar, Mr. R. Praveenkumar, and Mrs. V. Manimala, published a book chapter titled "Developing an Efficient Hybrid Approach for Email Spam Filtering: SPAM-NSGA-II-NvBys." The publication is associated with B.P. International in September 2022

FACULTY PARTICIPATION

Name of the Faculty	Name of the Event	Event Organizer
Mr. U. Rajasekaran, AP/ECE	An Innovative Teaching & Learning Practices of LMS	SRM Institute of Science and Technology
	Recent Trends in VLSI and Nano Electronics	Sree Vidhyanikethan Engineering College
	Innovation/Prototype Validation-Converting Innovation into a StartUp	PSNA College of Engineering and Technology.
Mr. M. Prakash, AP/ECE	An Innovative Teaching & Learning Practices of LMS	SRM Institute of Science and Technology
	"Research Methodology"	Greater Kolkata College of Engineering and Management
	Current Trends in Machine Learning and Medical Imaging Approaches in Health Care	Kongu Engineering College, Perundurai
	Humanities through Literature, Film and Media 2.0	Vellore Institute of Technology, Chennai

FACULTY PUBLICATION

Name of the Faculty	Title of the Paper	Name of the Journal/Conference
Mr. V. Kumar	Ai Based Visually Impaired Hindrance Observer And Narrator Assistance	National Conference on Innovative Trends in Communication and Technology NCITCT 22, Paavai Engineering College, Namakkal, Tamil Nadu
Dr. C. Venkatesh	Design and Implementation of Enhanced Edge Triggered Flip-Flop for Low Power Dissipation	Journal of Nanoelectronics and Optoelectronics