ADHIYAMAAN
COLLEGE OF ENGINEERING
AUTONOMOUS

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TECHNICAL NEWS LETTER

(INTERNAL CIRCULATION)

GENESIS

JUNE,-DEC,2020

ADHIYAMAAN COLLEGE OF ENGINEERING

VISION

To develop well-disciplined and competent engineers who will excel in the field of Electronics and Communication Engineering.

MISSION

- To develop qualified technical personnel with a strong knowledge on basic engineering principles.
- To disseminate Innovative technical skills by fostering excellence in engineering education.
- To promote exemplary professional conduct, to be utilised for the betterment of the society.

The Programme defines Programme Educational Objectives, Programme Outcomes and Programme Specific Outcomes as follows:

I. PROGRAMME EDUCATIONAL OBJECTIVES [PEOs]

PEO 1: Graduates of the programme will demonstrate strong fundamental mathematical concepts, advance techniques & tools in the field of Electronics and Communication Engineering, eventually motivates them to pursue their higher studies, design and development of innovative, cost-effective products exhibiting a solid foundation to research-oriented methodologies.

PEO 2: Graduates of the programme will be proficient with a successful career in academia and industry for global competitiveness.

PEO 3: Graduates of the programme will exemplify with ethics and moral values, effective communication, Interdisciplinary approach, to solve engineering issues for broader societal benefits which paves way to entrepreneurship and leadership.

II. PROGRAM OUTCOMES [POs]

PO1: An ability to relate the knowledge of mathematics, science and engineering, to practical real-world applications.

PO2: An ability to identify, formulate and solve the engineering problems.

PO3: An ability to produce the efficient system design and components design for various applications.

PO4: An ability to conduct and investigate different experiments for analysis and synthesis purpose.

PO5: Excel in modern Engineering tools, Software's and other equipment's.

PO6: An understanding the Professional responsibility in this technological world.

PO7: An ability to perceive the impact of Professional Engineering Solution in societal and Environmental contexts and demonstrate the knowledge of, and need for sustainable development.

PO8: An ability to apprehend, code of conduct and ethical responsibilities.

PO9: An ability to work on multi-disciplinary task and team work.

PO10: Ability to write and communicate effectively in verbal, written form.

PO11: An understanding of Engineering Economics and Management principles to lead projects effectively.

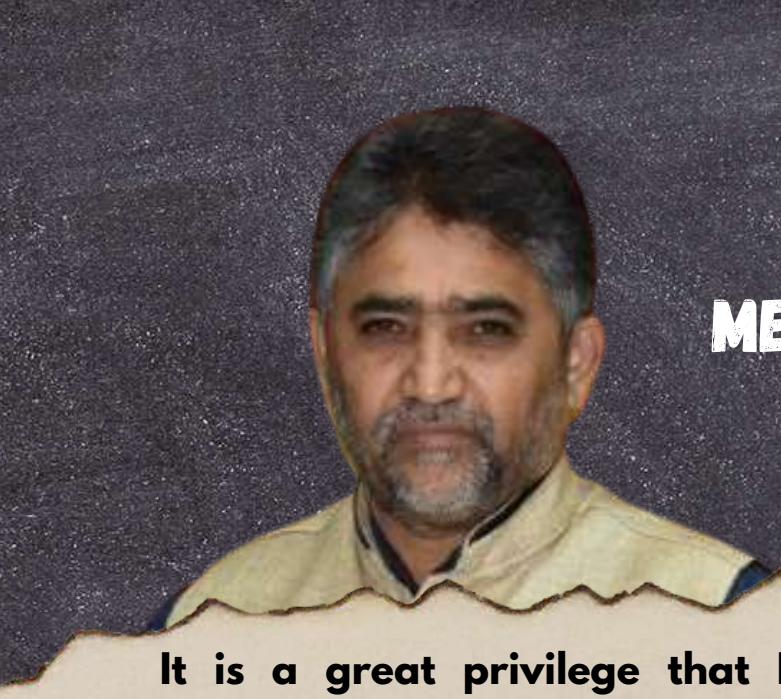
PO12: An ability to develop confidence for self-education and for life-long learning.

III. PROGRAM SPECIFIC OUTCOMES [PSOs]

PSO1:An ability to apply the knowledge of mathematics, science and electronic fundamentals to find solutions for complex engineering problems in the design and development of systems in Analog and Digital electronics, VLSI Design, Embedded Systems, Communication, Signal Processing and other relevant domains.

PSO2:An ability to solve real world problems with optimal solutions using modern hardware and software tools in the domain of electronics and communication engineering.

PSO3:An ability to grasp the social-cognizance and environmental-wisdom with ethical responsibility to be an entrepreneur in a techno-savvy world by au courant with latest technologies.



MESSAGE FROM PRINCIPAL

It is a great privilege that Department of Electronics and Communication Engineering releases A Technical newsletter "Genesis".

I appreciate all the faculty members and students of the Department of Electronics and Communication Engineering for their endurance and hard work.

I believe that the activities in the newsletter will be thought- provoking which will help the students to come up with flying colors.

I am also happy that the Department of Electronics and Communication Engineering has organized more technical events. It provides me immense pleasure to see the hard work of the students and the faculty members which bear such golden fruit.

This newsletter contains several technical articles that gives a glimpse of the bright young minds. It also brings out the hidden talents of students and gives them a platform to express their talents.

My best wishes to all present here and I hope that "Genesis" will be a great success.

Dr. G. Ranganath
Principal

MESSAGE FROM HOD

It gives me immense pleasure to introduce our very own Department Bulletin- newsletter "Genesis",Volume-01,Issue-01 June-December,2020

The Department of Electronics and Communication Engineering has highly qualified and experienced professors who are experts in their own discipline. We are privileged to produce promising "techno-wizards" for the engineering society.

The newsletter "Genesis" is an honor with great achievements. The newsletter consists of various Departmental Activities such as Workshops, Seminars, FDPs, Short-term Courses etc., that nourish our student's skills and knowledge of their subjects.

Added to that, Faculty achievements such as Publications in SCI/Scopus/UGC-Care listed Journals, Patents, Book/Book Chapters, FDPs Attended/Organized etc., during June-December,2020. The "Genesis" integrates many, in which students rise up to the situation and display their capabilities in organizing the events, their participation in Co-Curricular and Extra-Curricular activities, Awards and Recognitions etc.,

I extend a hearty appreciation to all the students and the staffs who have spent their time to time to complete "Genesis newsletter ".

I wish you all the best.

DR.S.SUMATHI
EDITOR-IN-CHIEF

MESSAGE FROM EDITORIAL TEAM

I feel very proud to share few words about "genesis",NewsLetter.

A lot of effort has gone into making of this issue, wherein all aspects and achievements of the Department are highlighted.

This Newsletter includes the activities of faculty members and students. This issue is a combined effort of the editorial team, particularly the student editors.

We hope that the readers will find interesting facts. Thank you all and wish you a great success.

Mr.P.MANIVANNAN
ASSOCIATE EDITOR

MESSAGE FROM STUDENTS' EDITORIAL TEAM

STUDENT EDITORIAL TEAM, WOULD LIKE TO EXPRESS OUR SINCERE GRATITUDE FOR YOUR ONGOING SUPPORT AND CONTRIBUTIONS TO OUR PUBLICATION. YOUR EXPERTISE AND INSIGHTS HAVE ENRICHED OUR CONTENT, MAKING IT TRULY EXCEPTIONAL.

JOE LAWRENCE S
(CHIEF EDITOR)

AS WE EMBARK ON ANOTHER EXCITING YEAR OF CREATING INFORMATIVE AND ENGAGING ARTICLES, WE LOOK FORWARD TO COLLABORATING WITH YOU TO SHOWCASE THE REMARKABLE ACHIEVEMENTS AND INNOVATIONS WITHIN THE ECE FIELD

SANTHOSH NARMAL AKASH

AISWARYA G

Departmental Activities

List of faculty publications along with DOI's and publication/citation details

1. DR.A.SUMATHI-OPTIMAL FEATURE SELECTION FOR THE CLASSIFICATION OF HYPER SPECTRAL IMAGERY USING ADAPTIVE SPECTRAL-SPATIAL CLUSTERING -INTERNATIONAL JOURNAL OF PARALLEL PROGRAMMING, SPRINGER-HTTPS://LINK.SPRINGER.COM/ARTICLE/10.1007/S10766-018-0607-5

2. DR.T.Menakadevi - An improved distance-based ant colony optimization routing for vehicular ad hoc networks-International Journal of Communication Systemshttps://www.scopus.com/inward/record .uri?eid=2-s2.0-85087301258&doi=10.1002%2fdac.4502&partnerID=40&md5=f8df2d77cae1ebde32b98ec49cce1035

3. DR.T.Menakadevi - Elephant intrusion warning system using iot and 6lowpan-International Journal of Sensors, Wireless Communications and Controlhttps://www.scopus.com/inward/record.uri?eid=2-s2.0-85099292161&doi=10.2174%2f2210327909666191129092006&partnerID=40 &md5=f3dd7d525d21299a8dd4d07b61689351

4. DR.S.Chidambaram - Optimal feature selection for the classification of hyper spectral imagery using adaptive spectral-spatial clustering- International Journal of Parallel Programming, Springer- https://link.springer.com/article/10.1007/s10766-018-0607-5

5.DR.R.Poovendran - Design of cost-effective wearable sensors with integrated health monitoring system-Proceedings of the 4th International Conference on IoT in Social, Mobile, Analytics and Cloud, ISMAC 2020 https://www.scopus.com/inward/record.uri?eid=2-s2.0- 85097828930&doi=10.1109%2fISMAC49090.2020.9243462&partnerID=40&md5 =e1ef0f49f42463a4d8912ad69ee651a2

6.DR.ASumathi- Modeling and simulation of solar PV energy conversion systems-International Journal of Engineering and AdvancedTechnology https://www.scopus.com/inward/record. uri?eid=2-s2.0-85075470856&doi=10.35940%2fijeat.F1216.0986S319&partnerID=40&md5=16eec734f52e26a69f30d92ba123faf4

LIST OF SEMINARS CONDUCTED

1.One day Seminar on “Para-Quantitative Methodology: Reclaiming Experimentalism in Educational Research”
Number of Participants: 17
Date: 26/11/2020

2.Seminar on recent satellite sensors for terra and aqua applications
Number of Participants: 94
Date : 29/07/2020

3. Seminar on opportunities and trends in "Sensors and IoMT"
Number of Participants: 96
Date : 16/09/2020

4.Seminar on Python for Image Processing
Number of Participants: 95
Date : 13/07/2020

5.Seminar on Satellite Image Processing for Aquatic Application
Number of Participants: 99
Date : 06/08/2020

6.Seminar on”Professional Development Program”
Date : 20.07.2020 to 21.7.2020

7. Two day Workshop on " Computer Vision and Image Processing Techniques"
Number of Participants: 32
Date : 20.07.2020 to 21.7.2020

COURSES MODULES DEVELOPED BY FACULTY MEMBERS

Convenor:-Dr.S.Sumathi

Co-ordinator:-Mr. M.Ashok Kumar,Mr. C. Stalin Jose-System Level Verification Techniques and Methodologies,Advanced RISC Architecture and ARM Processor

No.of.students:-142

FACULTY DEVELOPMENT PROGRAM

1.Keerthana J, A S Rashmi, Nagesh V- Faculty Development Program on "Advanced Sensors based IoT Techniqies"- 15-06-2020 to 17-06- 2020

2.A.P Nithyapriya- Faculty Development Program on "Mems based Sensors, fabrication, Techniques and Challenges in Semiconductor Industry"- 07-06-2020 to 11-06-2020

3.Mr. Vijay Murugan, M. Ashok Kumar, M.Maharaja, R.Somasundaram- Faculty Development Program on " IoT with Raspberry Pi and its Applications"- 22-06-2020 to 26-06-2020

FACULTY ACHIEVEMENTS

1.Dr.K.Suresh-MV R. Saravana Ram, M. Lordwin Cecil Prabhaker, K. Suresh, Kamalraj Subramaniam "Dynamic partial reconfiguration enchanced with security system for reduced area and low power consumption Microprocessors and Microsystems" 76, 1-8

2.MLCP M. Venkatesan, B. Adhavan, K. Suresh, K. Balachander Microprocessors and Microsystems-"Research on FPGA controlled three phase PV inverter using multi carrier PWM control schemes"

3.Dr.V.B.sundarabalan-SV Balasubramanian, N Pahlevan, B Smith, C Binding, J Schalles"Robust algorithm for estimating total suspended solids (TSS) in inland and nearshore coastal waters. "Remote Sensing of Environment 246", 111768

4.N Pahlevan, A Mangin, SV Balasubramanian, B Smith, K Alikas, K Arai-ACIX-Aqua: A global assessment of atmospheric correction methods for Landsat-8 and Sentinel-2 over lakes, rivers, and coastal waters Remote Sensing of Environment 258, 112366

STUDENT'S PHOTOGRAPHY

NAME: ARV
YEAR: 4th
CLASS : ECE-C

NAME: SHILPA S
YEAR: 4th
CLASS : ECE-C

NAME: MURGAN S
YEAR: 3RD
CLASS : ECE-C

STUDENT'S SKETCH ARTS

NAME: JOE LAWARANCE
YEAR: 2nd
CLASS : ECE-C

NAME: ARAVIND
YEAR: 3RD
CLASS : ECE-C

NAME: SANDAYA C
YEAR: 3RD
CLASS : ECE-C

- **"THIS NEWSLETTER IS MORE THAN INK ON PAPER; IT'S A TESTAMENT TO THE POWER OF RESEARCH AND THE BEAUTY OF LEARNING."**

"As we wrap up another captivating edition of GENESIS, we want to express our heartfelt gratitude to our dedicated readers, talented contributors, and everyone who made this issue possible. It's been a journey filled with enlightening stories, breathtaking visuals, and thought-provoking insights. We hope these pages have transported you to new worlds, sparked your curiosity, and inspired your passions. Remember, the story never truly ends; it evolves with every turn of the page. Stay tuned for our next chapter, where we promise to continue bringing you the extraordinary, the remarkable, and the extraordinary. Until then, keep exploring, keep dreaming, and keep reading."

THANK YOU