PRELUDE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

JIS College of Engineering, Kalyani, WB

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FROM THE DESK OF THE EDITORIAL BOARD!

We are honored to be the editors of the Electronics and Commun ication Engineering (ECE) Departmental Newsletter at the JIS College of Engineering, Kalyani, Nadia, west Bengal. We are excited to announce the 1st issue of 2020.This is due highlights the achievements, activities and more in which all of the members have actively participated. Each member played a vital role in publishing this newsletter. Thank you to everyone who helped make the newsletter present ation possible. We thank the Management of the JIS College of Engineering, particularly Prof. (Dr.) P. Sarkar, Principal, for their ongoing support and

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encouragement.

DEPARTMENTAL VISION AND MISSION

VISION

To excel in electronics & communication engineering in order to meet the challenges of modern industrial society through quality technical education, research, innovation and teamwork.

MISSION

DM1

To educate students from the foundation to the state-of-art knowledge in the development of electronic devices and communication systems with design optimizations.

DM2

To nourish the mind of growing engineers through qualitative evaluations, internal assessments, corporate trainings, efficient technical communication skills and creative project assignments.

DM3

To motivate the engineers of the future through competition in communication skill, seminar presentation, project, and group discussion.

DM4

To encourage the intended engineers in kind, humble and moral behavior with ignition in mind to contribute for the welfare of society.

Program Educational Objectives (PEOs)

PEO1

Graduates will have a strong foundation in engineering, science, and technology that will enable them to succeed as engineers and innovators in their respective fields.

PEO2

Graduates will comprehend, analyze, develop, & design unique products to address real-world challenges.

PEO3

Graduates will pursue their education beyond the undergraduate level, conduct diverse research, and advance their professional competencies.

PEO4

Graduates will recognize, formulate, and use professional skills and ethics to address industrial, societal, and environmental concerns.

PEO5

Graduates will communicate efficiently and maintain ethical guidelines as a member or leader in a group and as an entrepreneur.

PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

2. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

3. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

4. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

5. 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.

sustainable development.

6. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

7. Individual and teamwork: Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary settings.

8. Communication: 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.

9. 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 multi-disciplinary environments.

10. 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 Specific Outcomes (PSOs)

1. PSO1: Technical Knowledge and Analysis: Ability to Identify, Formulate & Solve problems of Analog & Digital Circuits, Communication, Networking, Signal & Systems, Computer Programming, Embedded Systems and Semiconductor Technology by applying the knowledge of Basic Sciences, Engineering Mathematics and Engineering fundamentals.

2. PSO2: Design & Implementation: Ability to design the systems of Electronics & Communication Engineering using advanced hardware and software tools with analytical skills to achieve societal needs keeping environmental awareness intact.

3. PSO3: Creation of Professional Engineers: Ability to analyze and transfer knowledge of various areas, like Communication Systems, Signal Processing, SoC (System on a Chip), VLSI and Nanotechnology to achieve a successful career as Engineering Professional, Researcher, Academician and Entrepreneur who can who can direct to implement the real-world applications along with ethical responsibility.

Achievements Like Article publications

1 Anirban Patra, Mainuck Das, Anirban Ghosal, Aniruddha Ghosh, Indranil Kushary, Samiran Roy, Debasish Chakraborty, "Remote sensing image encryption and error detection using hamming code", Journal of Physics: Conference Series, 2286(1), July, 2020, DOI 10.1088/1742-6596/2286/1/012018

2 Ashim Kumar Biswas, Arnab Nandi, Banani Basu, "Compact Wearable UWB MIMO Antenna with Reduced Mutual Coupling and Notch Characteristics of WLAN Band", Arabian Journal for Science and Engineering, 47, 14561-14569, August, 2020, https://doi.org/10.1007/s13369-022-06861-y

3 Sk Suman, Dip Kumar Kundu, Utsab Ray, Soumik Basu, Biswarup Neogi, Indranath Sarkar, "Contrived Motorization of Vehicle through Advanced Android Administration", Journal of Physics: Conference Series, 2286(1), Pp. 012003, July, 2020, DOI 10.1088/1742-6596/2286/1/012003

4 Palash Dutta, Trina Dutta, Ananya Barman, Moumita Pal, Ranjana Ray, "Suitable model prediction based on COVID 19 Phase I data", Journal of Physics: Conference Series, 2286(1), Pp. 012021, July, 2020, DOI 10.1088/1742-6596/2286/1/012021

5 A. Patra, D. Chakraborty, S. Sarkar and S. Kar, "Compression of High – Resolution Medical and Space Color Video using Butterworth Filter," 2021 Fourth International Conference on Cognitive Computing and Information Processing (CCIP), Bengaluru, India, 2020, pp. 1-6, doi: 10.1109/CCIP57447.2021.10058648.

6 Ghosh, S., Sinha, A., Roy, A., Neogi, B. (2021). Influential Factor Finding for Engineering Student Motivation. In: Panda, M., et al. Innovations in Intelligent Computing and Communication. ICIICC 2020. Communications in Computer and Information Science, vol 1737. Springer, Cham. https://doi.org/10.1007/978-3-031-23233-6_10

7 Patra, A., Banerjee, A., Ghosh, A., Das, M., Roy, S., Chakraborty, D. (2020). Encryption and Error Control in Satellite Images Using Linear Block Code. In: Mandal, J.K., Hinchey, M., Sen, S., Biswas, P. (eds) Applications of Networks, Sensors and Autonomous Systems Analytics. Studies in Autonomic, Data-driven and Industrial Computing. Springer, Singapore. https://doi.org/10.1007/978-981-16-7305-4_16

Achievements of Faculties and Department (Awards & Patent)

1 . Faculty Achievement :

(i) Mr. Anirban Patra : Enrolled for PhD at University of Calcutta (Dept. of applied Opti cs and Photonics) in July, 2020 .

(ii) Mr. Anirban Patra : Working in a joint project at RRSC (ISRO – Kolkata) in Satelite Image Processing from August 2020 .

(iii) Dr. Biswarup Neogi : was selected as a mentor of Atal Tinkering Lab (ATL) , NITI A ayog on July 24 , 2020 .

(iv) Dr. Biswarup Neogi : was selected as Team Member of AICTE , Mentor network on September 17 , 2020 .

(v) Dr. Biswarup Neogi : was selected as Team Member of Smart India Hackathon 2020 followed by MHRD innovation cell Team member on October 12 , 2020 .

Students placement 2020 – 2021

Name of The Company	Departments	Date of Interview	Organized By	Candidates
TCS	ECE	02 / 07 / 2020	JIS group	DEBABRATA ROY PRATIK RAHA
ITC	ECE	05 / 07 / 2020	JIS group	OYSHEE CHOUDHURY DEBJIT DUTTA
Hearing Plus	ECE	14 / 08 / 2020	JIS group	DEBABRATA ROY
L & T	ECE	10 / 09 / 2020	JIS group	KUMARI ANUBALA
Netpro System	ECE	21 / 09 / 2020	JIS group	MONISHA ROY
JR Technologies	ECE	17 / 10 / 2020	JIS group	PRASUN PAL KRISHNENDU MUKHERJEE

Student Achievements

1. ACHINTYA KUMAR SAHA ,ECE 4th Yr JISCE secured 89% marks in Satellite Communication and placed in top 5% of Certified Candidate. Awarded certificate on 19.07.2020

2. 2nd Year 4thYear Students Swagata Bandyopadhaya, Sarda Pal,Sradha Roy,Pankaj Choudhury won the 1 st prize in Online technical project competition from ECE department (techfest 2020) on 20-21 September.

THANKS

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