



# PRELUDE



Department of  
Electronics and Communication Engineering  
**JIS College of Engineering, Kalyani, WB**

## Editors

Faculty member:

**Dr. Ashim kumar Biswas**

Students:

**Saptarshi Mondal**

**Amrita Bhattacharjee**

**Arushi Minal**

**Bikram Das**

**Debanjana Nandy**

**Disharee Kundu**

**Kumari Suprita**

**Saheli Ghosh Dastidar**

**Samriddha Biswas**



## FORM THE DESK OF THE EDITORIAL BOARD!

It gives us immense joy and satisfaction to publish our very own Electronics and Communication Engineering (ECE) Departmental new-sletter "PRELUDE" at the JIS College of Engineering, Kalyani, Nadia, west Bengal for its 1st issue, volume no. 20 of 2021.

This issue places the interest of the achievements, activities, events and more in which all members have enthusiastically contributed. All the members played an energetic role in issuing this newsletter. Thank all who helped directly or indirectly to make this issue a grand success. We thank the Management of the JIS College of Engineering, particularly Prof. (Dr.) P. Sarkar, Principal, for their ongoing support and inspiration.

**vol 20, 1st issue, July-October, 2021**

## DEPARTMENTAL MISSION AND VISSION

### VISION

*To excel in Electronics & Communication Engineering in order to meet the challenges of modern Industrial society through quality technical education, research, innovation and team work.*

### MISSION

*To educate students from the foundations to the state of art knowledge in the development to electronic devices and communication systems with design optimizations and to carry out research through constant interaction with research organizations and industry. To nourish the mind of growing engineers through qualitative evaluations, internal assessments, corporate trainings, efficient technical communication skills and creative project assignments. To motivate the engineers of the future through competition in communication skill, seminar presentation, project, and group discussion. 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:

*To provide the students with a solid foundation in mathematical, scientific and electronics and communication engineering fundamentals required to solve related problems;*

#### PEO2:

*To train the students with scientific and electronics and communication engineering application knowledge to comprehend, analyze, design & create novel products and solutions for real life problems.*

#### PEO3:

*To inculcate leadership in the students professional/ ethical attitude, effective team work skills, multidisciplinary approach and to relate electronics and communication engineering issues to a broader context;*

#### PEO4:

*To motivate the students to excel in various educational programs or to Succeed in industry/technical profession through further educational/training such as seminars, workshops, conferences etc;*



PEO5:

*To provide the students with academic environment of excellence, leadership, ethical guidelines and to encourage with achievement awards for productive career.*

### **THE DEPARTMENT AT A GLANCE**

*The Department of Electronics and Communication Engineering started its journey with the establishment of JIS College of Engineering in the year of 2000. In 2011 the institution received approval of the Autonomous Institution. From inception, this department has maintained updated experimental laboratories and experienced faculty members. At present the department runs one undergraduate program (B. Tech in ECE) and one postgraduate program (M. Tech in MCNT) under MAKAUT. These courses are accredited by NBA (National Board of Accreditation), NAAC (National Assessment and Accreditation Council). The curriculum and syllabus have been updated under an autonomous institutional framework. Online courseware established for each course is available on the institutional website. In view of the growing need in modern education JISCE has started FLIP learning from 2017. This new approach of teaching learning is focused to motivate students in Group discussion on sub topics, Digital content building, Presentation of the digital content on the smart board. In addition to the institutional library, the departmental library provides reference books, previous project report, NPTEL repository, previous year semester questions, and faculty publication repository for the benefit of students. The department has a strong focus in students mentoring through creative idea building linked to the benefit of society. Involvement of the students in various ongoing projects sponsored by the central government instills deep research ideas. During the days at JISCE students are going through Industrial Visit, Vocational training at reputed industry, Industry partnered project, Academic visit to foreign Universities etc. Being a member of the department for a long time I feel proud to share that good cooperation among faculty members' results in overall accomplishments.*



## Contributed talk by the faculty

Sl	Name /Title of the Lecture/Talk	Date	Name of the Faculty Speaker	Category of the Participants	Venue
1.	"Robotic complexes for mining of steeply-inclined thick seam with the top coal caving"	27/08/2021	Dr.Biswarup Neogi	Invited Speaker (Online Skype Call)	Federal Research Institute

## Faculty Achievements

- i) *Mr.Anirban Patra: Enrolled for PhD at University of Calcutta (Dept. of Applied Optics and Photonics) in July, 2021.*
- ii) *Dr.Biswarup Neogi was selected as a Mentor of Atal Tinkering Lab (ATL), NITI Aayog on July 24, 2021.*

## Publications of faculty

Sl	Title of the paper	Author	Publication Details/Vol.No./ISSN No./Page No.
1.	"Scholastic Approach towards Economic Digital Mileage Meter with GPS",	Anirban Ghosal, Dr. Indranath Sarkar,	Devices for Integrated Circuits (DevIC 2019,IEEE),KGEC, Kalyani, 23rd -24th September, 2021
2.	"Body Area Network using Cluster Based Energy Efficient Routing"	Dr. Indranath Sarkar,	IJRAR July 2021, <a href="http://doi.org/10.1729/Journal.20477">http://doi.org/10.1729/Journal.20477</a> , Volume 6, Issue 2, pp 1-4, Impact Factor 5.75
3.	"New Approach to Invisible Water Marking of Color Images using Alpha Blending"	Anirban Patra	Published in IEEE Xplore on July 2021
4.	"Encryption of Optically Compressed Satellite Image using Random Phase"	Anirban Patra	Presented in RAICMHAS- 2021 at Brainware,03/08/2021,University; Published in IJIKC , Vol - 7
5.	Control System Based Modeling and Simulation of Cardiac Muscle With Optimization using Performance Index	Dr. Biswarup Neogi	Journal of Mechanics of Continua and Mathematical Sciences, ISSN PRINT : 0973-8975 ISSN ON LINE : 2454-7190, Volume 4 Issue 6, E-SCI Web of Science, 28/07/2021
6.	An Application of Pade Approximation and PID Tuning Technique to Improve the System Performance of Electric Ventricular Assist Device	Dr. Biswarup Neogi	International Journal of Advanced Scientific Research and Management, ISSN 2455-6378 274, Volume 4, Issue 5 Page No. 274-280, UGC Approved 31/07/2021

## Book Chapter Publication

SI	Authors	Title	Book Chapter	ISSN/ISBN	Vol. Page no	Indexing	Year
1.	S. Bhattacharya , S. Ghosh , B. Neogi	Real-Time Cardio Monitoring and Characterization of Diseases Introducing Statistical and Spectrogram Analysis	Advanced Classification Techniques for Healthcare Analysis, (Publisher: IGI Global)	Vol 1	182-205	Scopus	October 2021

**THANKS**

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING,  
JIS COLLEGE OF ENGINEERING, KALYANI, NADIA WEST BENGAL-741235**