



# St. Thomas' College of Engineering and Technology

4, Diamond Harbour Road, Kidderpore, Kolkata- 700023

NEWSLETTER

## DARPAN

(THE IMAGE OF ACHIEVEMENTS)

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### VISION OF THE DEPARTMENT

To build a strong teaching and research environment to cater to the manpower needs in Industrial and Academic domains of the rapidly growing Electronics and Communication Engineering.

DEPARTMENT  
ECE

### MISSION OF THE DEPARTMENT

#### Editors:

1. Sudipta Dutta  
Assistant Professor,

2. Prashnatita Pal  
Assistant Professor,

3. Paramita Ghosh,  
3rd Yr ECE

4. Tiasha Santara,  
3rd Yr ECE

- ❖ To produce certified industry-ready professional in Electronics and Communication Engineering, through innovative educational programs incorporating laboratory practices and project based teaching-learning processes, in a modern environment.
- ❖ To create knowledge base of advanced technologies through research in the area of Electronics and Communication, for competitive and sustainable development of the country.
- ❖ To groom the department as a learning centre to inculcate advancement of technology in Electronics and Communication Engineering with social values and environmental awareness.

### RECENT TECHNOLOGY TREND

#### IoT Security

Data showed that more than 1.5 billion attacks have occurred against IoT devices in the first six months of 2021. Telemetry data from Kaspersky showed that IoT device cyber attacks have increased by more than 100%. It is often said that if World War III breaks out, it will be fought in cyberspace. With billions of IoT devices, applications, and services already in use, and greater numbers coming online, IoT security is of utmost importance. Poorly secured IoT devices and services can serve as entry points for cyber attacks, compromising sensitive data, weaponizing data, and threatening the safety of individual users. As IoT brings more and more systems together under the umbrella of network connectivity, providing security is more important. From the electrical grid system that powers our world, to the lights that control the flow of traffic in a city, to the systems that keep airplanes flying in an organized and efficient way, security of the networks, devices, and the applications that use them is foundational and essential for all modern communications systems. Providing security in such a world is not easy. With so many potential attack vectors, information and cyber security is a challenging, but engaging, topic that is of critical importance to technology vendors, enterprises, and service providers alike.

**Dr. Prasun Chowdhury**  
HOD, Department of Electronics and Communication Engineering

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## DEPARTMENTAL MILESTONE

### STUDENTS ACHIEVEMENT

#### MOOCS:

No. of students successfully completed MOOCS: 58

Among them 14 students have completed MOOCS in various subjects under Coursera and 44 students have completed MOOCS in various subjects under NPTEL.

#### UNIVERSITY RESULT:

- Top three Final year students who completed Degree course in 2020-21.

NAME	DGPA
PRITAM MUKHERJEE	9.46
TANUSREE SEAL	9.44
SIDDHARTHA MAITY	9.42

- Top three performers in 3<sup>rd</sup> Year (6<sup>th</sup> Semester) Exam

NAME	SGPA
UJJWAL KUMAR	9.93
SUBHOJIT DATTA	9.93
MAITREYEE SARKAR	9.93

- Top three performers in 2<sup>nd</sup> Year (4<sup>th</sup> Semester) Exam

NAME	SGPA
GARGI GHOSH	9.84
PARAMITA GHOSH	9.8
SWAPNAMROY PAHARI	9.8

#### STUDENT PLACED IN IT COMPANY:

- Number of offered received by the students of Batch 2020-21: 69.

#### CORE COMPANY RECRUITMENT:

- Mr. Akash Das, Batch 2017-20 has been appointed as an Assistant Manager in Core Company, **Reliance Jio Infocomm Limited**, June 2021.

#### STUDENTS PUBLICATION:

- Ayan Pal, Arunabho Panja, Amibrata Samadder, Saswata Banerjee Published a Book Chapter named "Extended Microstrip Line-Fed Circularly Polarized Dielectric Resonator Antenna for WiMAX and 5G Applications" in *Trends in Wireless Communication and Information Security*, Springer, ISSN: 978-981-336-393-9, 2021.

#### PERFORMANCE IN "INNOVATION COMPETITION" CONDUCTED BY EDC, STCET:

- The event "Innovation Competition" was conducted by Entrepreneur Development Cell in two phases. Phase-1 of the event was held on 20<sup>th</sup> February 2021 and Phase-2 was held on 19<sup>th</sup> June 2021. The students who are



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selected for final round of competition to present their innovative work from our department are – Abhranil Aich, Archishman Chakraborti, Aritra Krishna Ghosh, Paramita Ghosh, Pragna Purkait, Tiyasa Chakraborty and Ashmita Mondal.

- Among them **Ashmita Mondal** secured **2nd position**.

## FACULTY ACHIEVEMENT

### PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMME (FDP):

- **Juin Acharjee** successfully completed FDP on Modern Antennas for Present and Futuristic Wireless Communication Technology, March 8-13, 2021.
- **Ankush Chattopadhyay** successfully completed Five-days online FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education(AICTE) from 19 April, 2021 to 23 April, 2021.
- **Juin Acharjee** successfully completed FDP on Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education (AICTE) from 19 April, 2021 to 23 April, 2021.
- **Sumani Mukherjee** successfully completed FDP on the theme “Inculcating Universal Human Values in Technical Education” organized by All India Council for Technical Education(AICTE) from 19 April, 2021 to 23 April, 2021.
- **Sudipta Dutta** successfully completed Five days Online STTP on “Problem Based Learning (ICT103)” from 12/07/2021 to 16/07/2021 organized by NITTTR, Kolkata.

### PUBLICATION DETAILS:

#### • PUBLISHED JOURNAL & CONFERENCE PAPERS

- **Dipankar Kundu**, "Simple Empirical Relation for Effective Cladding Index of an Index Guiding Photonic Crystal Fiber and Estimation of its Beam Divergence and Far-Field Intensity", *Journal of Optical Communication Electronics, Volume-7, Issue-2 (May-August, 2021)*.
- **Ankush Chattopadhyay**, Manash Chanda, Chayanika Bose, Chandan K. Sarkar, "Analytical modeling of linearity and intermodulation distortion of 3D gate all around junctionless (GAA - JL) FET" in *Superlattices and Microstructures, vol. 150, 2021, doi: <https://doi.org/10.1016/j.spmi.2020.106788>*.
- **Chattopadhyay, A.**, Chanda, M., Bose, C. Sarkar, C. K., “Analytical Modeling of Harmonic Distortions in GAA Junctionless FETs for Reliable Low-Power Applications.”, *Journal of Electronic Materials, vol. 50, pp. 4606-4618 (2021)*. <https://doi.org/10.1007/s11664-021-08999-1>.
- M. Goswami, **A. Chattopadhyay** and C. Bose, "Influence of High-k Oxide Thickness on Gate Stack DMG Junctionless SOI MOSFET", *2021 Devices for Integrated Circuit (DevIC), 2021, pp. 193-197, doi: [10.1109/DevIC50843.2021.9455802](https://doi.org/10.1109/DevIC50843.2021.9455802)*.
- P. Kumari, K Mandal, **J. Acharjee**, S. Bhunia, “Cross-Polarization Pattern Diversity of Patch Antenna using Recessed Dielectric Layer”, *AEU - International Journal of Electronics and Communications*, 137, May 2021.
- NilavaDebabhuti, **Sumani Mukherjee**, Swarnali Neogi, Prolay Sharma, Ugir Hossain Sk, Soumen Maiti, Mousumi Poddar Sarkar, BipanTudu, Nabarun Bhattacharyya, Rajib Bandyopadhyay, A study of vegetable oil modified QCM sensor to detect  $\beta$ -pinene in Indian cardamom, *Talanta* 236 (2022) 122837.



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- **PUBLISHED BOOK CHAPTER**

- **J. Acharjee**, “A Compact Multiband Antenna for Mobile Handset Application”, Computers and Devices for Communication, Springer, Singapore, ISSN: 978-981-15-8366-7, February 2021.
- **J. Acharjee**, “Extended Microstrip Line-Fed Circularly Polarized Dielectric Resonator Antenna for WiMAX and 5G Applications”, Trends in Wireless Communication and Information Security," Springer, ISSN: 978-981-336-393-9, April 2021.