St. Thomas' College of Engineering and Technology

4, Diamond Harbour Road, Kidderpore, Kolkata- 700023

NEWSLETTER

TECH TIMES

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DEPARTMENT

IT

VISION

To promote the advancement of learning in Information Technology through research oriented dissemination of knowledge which will lead to innovative applications of information in industry and society.

MISSION

To incubate students grow into industry ready professionals, proficient research scholars and enterprising entrepreneurs.

To create a learner- centric environment that motivates the students in adopting emerging technologies of the rapidly changing information society.

To promote social, environmental and technological responsiveness among the members of the faculty and students.

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RECENT TECHNOLOGY TREND: OPTICAL COMPUTER

In recent years, the biological evolution of molecular detection capabilities based on gene analysis has provided a reliable performance in the diagnosis of a disease before a symptom emerges. Human gene storage requires a large amount of computer memory (about 1.5GB for each DNA) and the search for a specific pattern within it with electronic computers is time and power consuming. Optical computing uses light parallel processing capabilities to find the pattern in a digital field, which can be used to process large volumes of data in short time with low power consumption, while electronic computers process data in series with high power dissipation. According to the Optalysys report, the sequencing of the gene utilizing optical processing saves up to 95% of the power consumption per year. Due to the parallel nature of light, this optical computer is placed among the most powerful electronic supercomputers.

Prof. Amit Kumar Siromoni
Head of the Department,
Department of Information Technology,
St. Thomas' College of Engineering and Technology

DEPARTMENTAL MILESTONES

Performance in NPTEL:

- **Ayush Bhattacharjee**, 3rd year (84%) (***Top 5% of certified candidates***); **Aman Kumar,** 3rd year (81%); and **Arindam Chattaraj,** 4th year (80%) in **Database Management System,** received Elite Certificates.
- **Arijit Santra**, 2nd Year (84%); **Nilanjan Roy**, 1st Year, (83%) and **Sabyasachi Das**, 1st Year (83%) in **Problem Solving through Programming in C**, received Elite Certificates.

- **Aman Agarwal**, 3rd year (82%); **Shubhojit Sarkar**, 3rd Year (82%) in **Programming, Data Structures and Algorithms using Python**, received Elite Certificates.

Faculty Development Programme attended

- **Dr. Arijit Ghosal** attended a Short Term Training Programme on *Outcome Based Assessment,* held at NITTTR, Kolkata, From 21/05/18 To 25/05/18.
- **Mr. Kalyan Das, Mr. Sk.Latib, Dr. Ranjit Ghoshal** and **Dr. Nilanjana Karmakar** attended a Short Term Training Programme on *Fundamentals of Data structures and Algorithms,* held at NITTTR, Kolkata, From 04/06/2018 To 15/06/2018
- **Ms. Aditi Bal, Ms. Ranjita Choudhury** and **Ms. Subhasree Basu** attended a Short Term Training Programme on *ANN and Deep learning,* held at IIT, Guwahati, From 11/06/18 To 15/06/18.

Ph.D Awarded:

Mr. Arindam Chakravorty, received his PhD degree in April 2018 from Jadavpur University. His research domain is Flow shop scheduling.

Event:

A **Three Days Workshop** on **Information Analysis** was organized by the Department of Information Technology on **11/06/2018** through **13/06/2018** for the students of IT 2nd year.
Speakers: Prof. Bhabatosh Chandra, Professor, Department of Electronics and Communication Unit, ISI Kolkata, on "*Digital Image processing Application*" and **Prof. Santanu Chattopadhyay**, Professor, Department of Electronics and Electrical Communication Engineering, IIT Kharagpur, on "*Digital Signal Processor Architecture* ".

Winners in Hands-on Session:

Sayantan Samajpati: Winner;

Deepa Biswas: 1st runners up

Poulami Mukherjee: 2nd runners up.

Publication Details

1. **N. Karmakar+,** S. Mondal, A. Biswas, **"**Determination of 3D Curve Skeleton of a Digital Object" **,** Information Sciences, pp.1--18, (2018), DOI: https://doi.org/10.1016/j.ins.2018.06.021.