



# January 2022 Newsletter

## Symbiosis Institute of Technology, Pune

### Electronics and Telecommunication Engineering Department

#### Department Vision:

To emerge as a leading source for Electronics and Telecommunication engineering, fostering globally proficient engineers to meet the demands of evolving industry and society.

#### Department Mission:

- **M1:** Foster collaboration with industry to facilitate the acquisition of cutting-edge technologies and contribute to the generation of up-to-date knowledge, enhancing employability and sustainability.
- **M2:** Encourage innovation, research, and development, creating an environment conducive to higher education, entrepreneurship, and lifelong learning.
- **M3:** Cultivate leadership qualities infused with social and ethical values, providing a platform for their development.

#### Program Educational Objectives (PEOs):

- **PEO1:** Graduates will possess a strong foundation in science and engineering fundamentals, along with analytical skills to effectively solve real-world problems.
- **PEO2:** Graduates will gain technical proficiency in Electronics and Telecommunication fields and scale new heights in profession through lifelong learning.
- **PEO3:** Graduates will embrace professionalism, ethical conduct at all levels and constantly evolve in a multidisciplinary approach leading towards sustainability.
- **PEO4:** Graduates will leverage their engineering knowledge, effective communication skills, leadership qualities, and teamwork spirit to serve society and contribute positively to their community.

### Guest lectures organized:

- The guest speaker **Ms. Manali Jadhav**, Imaging technologist working at Medpace Inc., Imaging Core Laboratory has delivered a comprehensive lecture on Imaging Systems on 4<sup>th</sup> September 2021 for the benefit of B. Tech students.
- The guest speaker **Dr. Kumar Padmanabh**, Senior Researcher at EBTIC UAE has delivered a comprehensive lecture on Internet of Things on 5<sup>th</sup> October 2021 for the benefit of B. Tech students.
- The guest speaker **Dr. Md. Akhtaruzzaman**, Associate faculty at Solar Energy Research Institute (SERI) of The National University of Malaysia has delivered a comprehensive lecture on "Current Advancements and Novel Approaches of Eco Friendly Organic-InOrganic Hybrid Solar Cells" on 18<sup>th</sup> November 2021 for the benefit of B. Tech students.

### Value added course:

- A value added course on **"Introduction to LaTeX"** has been introduced for the benefit of B. tech students. The objective of this course is to make students well versed with the documentation in LaTeX and provide hands on practice session on various tools required. The course consists of 30 hours of theory and practical sessions. The coordinators for the event were Dr. Pritesh Shah, Dr. Jayant Jagtap, and Dr. Abhay Pal Singh.

### Student achievements:

- **Tanya Singh** of E&TC department has participated in Artificial Intelligence program organized on 19<sup>th</sup> August 2021 by Digital India and INTEL.
- **Gravitraj Pandey** of E&TC department has participated in Adobe UX foundation learning journey organized on 2<sup>nd</sup> September 2021 by Adobe.
- **Vinay Patil** of E&TC department has participated in Technical session on Robot Operating System (ROS) organized on 3<sup>rd</sup> September 2021 by e-Yantra Lab Setup Initiative (eLSI) and won the competition.
- **Arpit Ranjan** of E&TC department has attended the webinar on 'how Tesla self driving Cars work' organized on 29<sup>th</sup> September 2021 by TechLearn.
- **Tanya Singh** of E&TC department has attended webinar on 'Introduction to data Science' organized on 30<sup>th</sup> September 2021 by IBM.

## Department publications:

- Velamuri Suresh, Cherukuri SH, Sudabattula SK, Prabakaran N, Hossain E. Combined approach for power loss minimization in distribution networks in the presence of gridable electric vehicles and dispersed generation. IEEE Systems Journal. 2021 Nov 22.
- Abhilash Tirupathi, A single-phase simplified DC-AC converter using DC-link capacitors and an H-bridge, Bulletin of Electrical Engineering and Informatics, Vol. 10, No. 6, December 2021, pp. 2964~2971, ISSN: 2302-9285, DOI: 10.11591/eei.v10i6.2788.
- Ujwala Kshirsagar, Priti shahane, Low-Cost Health Monitoring Pedometer Using IoT, IOT with Smart Systems Proceedings of ICTIS 2021, Volume 2, page 169-178.
- Rahee Walambe, Pranav Nayak, Ashmit Bhardwaj, Ketan Kotecha, "Employing Multimodal Machine Learning for Stress Detection", Journal of Healthcare Engineering, vol. 2021, Article ID 9356452, 12 pages, 2021. <https://doi.org/10.1155/2021/9356452>.
- Anil Rahate, Rahee Walambe, Sheela Ramanna, Ketan Kotecha, Multimodal Co-learning: Challenges, applications with datasets, recent advances and future directions, Information Fusion, Volume 81, 2022, Pages 203-239, ISSN 1566-2535, <https://doi.org/10.1016/j.inffus.2021.12.003>.
- Anil Rahate, Shruti Mandaokar, Pulkit Chandel, Rahee Walambe\*, Ketan Kotecha, Sheela Ramanna. Employing Multimodal Co-learning to Evaluate the Robustness of Sensor Fusion for Industry 5.0 Tasks. Soft Computing. (Accepted for publication).
- Aditya Jain, A. Kumar, N. Gupta, and V. Kumar, "Superior energy storage performance coupled with excellent electrical characteristics in lead-free  $\text{Ba}_{0.8}\text{Ca}_{0.2}\text{TiO}_3\text{-(Bi}_{0.80}\text{Mg}_{0.20})\text{(Ti}_{0.65}\text{Mg}_{0.30})\text{O}_3$  ceramics," J. Phys. D: Appl. Phys., 54[49] 495504 (2021).
- Aditya Jain, Ajay Kumar, Neha Gupta, "Significant Improvement in Magnetic and Magnetoelectric Characteristics of  $(0.95-x)\text{Ba}_{0.9}\text{Ca}_{0.1}\text{TiO}_3\text{-}0.05\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3\text{-}x\text{CoFe}_2\text{O}_4$  ceramics", IEEE Transactions on Magnetics, doi: 10.1109/TMAG.2021.3131511.
- C. Bhargava and PK Sharma, Use of natural dyes for the fabrication of dye-sensitized solar cell: a review, 2021, 69, e139319, <https://doi.org/10.24425/bpasts.2021.139319>.
- "Jayshree Pande, Paresh Nasikkar, Ketan Kotecha, Vijayakumar Varadarajan, A Review of Maximum Power Point Tracking Algorithms for Wind Energy Conversion Systems, Journal of Marine Science and Engineering (Marine Energy Section) -2021, Accepted for Publication.
- Bandopadhyaya, A., Dodwad, D., Gupta, D., Surya Koyyana, M., Narkhede, P., & Deshpande, S. (2021). Bibliometric Review on IoT Based System for Remote Downloading on Microcontroller.
- "Bandopadhyaya, A., Dodwad, D., Gupta, D., Surya Koyyana, M., Narkhede, P., & Deshpande, S. (2021). Bibliometric Review on IoT Based System for Remote Downloading on Microcontroller.
- Atha, G., Chaturvedi, S., Desai, A., Desai, D., & Deshpande, S. V. (2021). Bibliometric Analysis on Dynamic Target Tracking by Mobile Robot."
- Aniket Gunjal and Ujwala Kshirsagar\*, Broadband Asymmetrically Fed Circularly Polarized Slot Antenna for Mid-Band 5G Smartphone Applications, Progress In Electromagnetics Research C, Vol. 115, 233{244, 2021 Broadband.
- Roongmuanpha, N.; Faseehuddin, M.; Herencsar, N.; Tangsrirat, W. Tunable Mixed-Mode Voltage Differencing Buffered Amplifier-Based Universal Filter with Independently High-Q Factor Controllability. Appl. Sci. 2021, 11, 9606.
- Faseehuddin, M., Herencsar, N., Albrni, M.A., Shireen, S. and Sampe, J. (2021), "Electronically tunable mixed mode universal filter employing grounded capacitors utilizing highly versatile VD-DVCC", Circuit World, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/CW-05-2020-0080>.
- Faseehuddin, M.; Herencsar, N.; Albrni, M.A.; Sampe, J. Electronically Tunable Mixed-Mode Universal Filter Employing a Single Active Block and a Minimum Number of Passive Components. Appl. Sci. 2021, 11, 55. <https://doi.org/10.3390/app11010055>.
- Albrni, M. I. A., Mohammad, F., Herencsa, N., Sampe, J., & Ali, S. H. M. (2020). Novel Electronically Tunable Biquadratic Mixed-Mode Universal Filter Capable of Operating in MISO and SIMO Configurations. Informacije MIDEM-Journal of Microelectronics Electronic Components and Materials, 50(3), 189-203.

### **Placement details:**

Students of 2018-22 batch have been placed in renowned companies, such as IBM, ZF India, Netcracker, HDFC Bank, Persistent, Mindstix, Miniorange, Frazzo, etc.

### **Few Tidbits by our students**

- Smartphone photography will now be used to detect eye disease and passwords for your heart.
- Replying more than 100 times to the same piece of spam e-mail will overwhelm the sender's system and interfere with his ability to send any more spam.
- The longest non-medical word in the English language is floccipausinihilipilification (29 letters), which means “The act of estimating as worthless.”