



Celebrating 50 Years of Excellence

July 2020 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 **Dr. Bhanu sood**, Research Scientist working at NASA has delivered a comprehensive lecture on Reliability and risk analysis on 6th August 2020 for the benefit of B. Tech students.
- The guest speaker **Mr. Ramanna Anchuri**, Systems Evangelist working at Mathworks has delivered a comprehensive lecture on Power system simulation on 22nd November 2020 for the benefit of B. Tech and M. Tech students.
- The guest speaker **Mr. Gurupreet Singh**, Principle Design Engineer at NXP Semiconductors has delivered a comprehensive lecture on Digital Design Technology on 31st October 2020 for the benefit of B. Tech students.

Student achievements:

- **Harshit Gauba** of E&TC department has participated in DSA competition organized on 27th June 2020 by Code Asylums and have won the third price.
- **Smit Shah** of E&TC department has participated in Brain Controlled Robot Design competition organized on 6th June 2020 by Pantech Solutions.
- **Vinay Patil** of E&TC department has participated in Technical session on Robot Operating System (ROS) organized on 3rd September 2020 by e-Yantra Lab Setup Initiative (eLSI) and won the competition.

Alumni Messages

My college days were an unforgettable phase of my life, I enjoyed every single moment of my journey in SIT. I never felt depressed on being away from home as SIT was like a second home for me. SIT provided me with a great exposure which helped greatly to shape my personality. The 24-hour Make-a-thon competitions which would come through every month where we can apply our technical knowledge was one of the core aspects which enhanced me. The incredible college life I experienced here was significantly aided by the excellent and cordial faculties. I will always be grateful to all my faculties who helped and guided me whenever I was going through a tough time.

Mayank Paranjape (B. Tech 2016-20)

Department publications:

- Javed K. Sayyad and Paresh S. Nasikkar, Capacitor Load Based I–V Curve Tracer for Performance Characterisation of the Solar Photovoltaic System, *Applied Solar Energy*, 2020, 56, No. 3, 168–177.
- Sayyad, Javed and Nasikkar, Paresh, Solar Photovoltaic Performance Monitoring: A Bibliometric Review, Research Gaps and Opportunities, *Library Philosophy and Practice (e-journal)*, 2020, 4830.
- Pande, Jayshree Ashok and Nasikkar, Paresh, Bibliometric Review of MPPT Algorithms for Wind Energy Conversion Systems, *Library Philosophy and Practice (e-journal)*, 2020, 4895.
- Priti Shahne and Jayshree Pande, Bibliometric Review of NoC Router Optimization , *Library Philosophy and Practice (e-journal)*, 2020, 4630.
- Rutuja Patil, Sumit Kumar, Bibliometric Survey on Diagnosis of Plant Leaf Diseases Using Artificial Intelligence, *International Journal of Modern Agriculture*, 2020, 9, 3, 2020, 1111.
- Rajeshwari R. Malekar, Laxmikant K. Shevada, Hema D. Raut, Amruta S. Dixit, and Sumit Kumar, MIMO antenna for Fifth Generation mm-Wave Applications: A Bibliometric Survey, *Library Philosophy and Practice (e-journal)*, 2020, 4854
- Laxmikant K. Shevada, Hema D. Raut, Malekar, Rajeshwari R. Malekar, Amruta S. Dixit, and Sumit Kumar, A Bibliometric Survey on Ultra Wideband Multiple Input Multiple Output Antenna with Improved Isolation, *Library Philosophy and Practice (e-journal)*, 2020, 4841.
- Amruta S. Dixit, Laxmikant K. Shevada, Hema D. Raut, Rajeshwari R. Malekar, and Sumit Kumar, Fifth Generation Antennas: A Bibliometric Survey and Future Research Directions, *Library Philosophy and Practice (e-journal)*, 2020, 4575
- Sumit Kumar, Amruta S. Dixit, Rajeshwari R. Malekar, Hema D. Raut, and Laxmikant K. Shevada, Fifth Generation Antennas: A Comprehensive Review of Design and Performance Enhancement Techniques, *IEEE Access*, 2020, 8, 163568.“
- 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. *Library Philosophy and Practice (e-journal)*, 2020, 5799.
- Atha, G., Chaturvedi, S., Desai, A., Desai, D., & Deshpande, S. V. (2021). Bibliometric Analysis on Dynamic Target Tracking by Mobile Robot. *Library Philosophy and Practice (e-journal)*, 2020, 5789 .
- Midha, A., Maheshwari, I., Kaushik Ojha, M., Gupta, K., & Deshpande, S. V. (2021). Bibliometric Review of Predictive Maintenance using Vibration Analysis. *Library Philosophy and Practice (e-journal)*, 2020, 5790 .“
- Saffrine Kingsly, Malathi Kanagasabai, M. Gulam Nabi Alsath, P. Sandeep Kumar, T. Rama Rao, K. Indhumathi, Sangeetha Subbaraj and Yogeshwari Panneer Selvam, Compact Frequency and Bandwidth Reconfigurable Microwave Filter, *Wireless Personal Communication*, 2020, 115, 1755-1768.

Placement details:

Students of 2016-20 batch have been placed in renowned companies, such as Vodafone, Amazon, Emerson, eClerx, Endurance, Media.net, etc.

Tech-talk

Tesla stands for Tera electron volt Energy Superconducting Linear Accelerator, and the company's name is a homage to the Serbian American engineer and inventor, Nikola Tesla, who invented the induction motor and alternating-current (AC) power transmission.

Tesla, Inc. was set up way back in the year 2003 (formerly Tesla Motors, Inc.) and while Elon Musk represents the face of the company, Tesla Motors, Inc. was founded by engineers and investors Martin Eberhard and Marc Tarpenning, having a vision of building "a car manufacturer that is also a technology company", with its core technologies as "the battery, the computer software, and the proprietary motor".

Elon Musk then entered Tesla with the vision towards building a solar electric economy and he is now the Co-founder and CEO of Tesla. The Tesla Roadster 2020 holds the record for the fastest electric car in the world, "with record-setting acceleration, range, and performance." This car can cover from 0-60 mph in a time of 1.9 seconds, 0-100 mph in 4.2 seconds, a complete quarter-mile sprint in 8.9 sec and a top speed of over 250 mph.

The Tesla Model X has a prepared defensive mechanism to keep the electric vehicle, its passengers safe for biowarfare. The Model S also has a similar feature that keeps itself filtered off of viruses, bacteria and other allergens present in the air.