



#### DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION July23-Dec 23

The program of Bachelor of Engineering in Electronics and Telecommunication is being conducted in accordance to the course curriculum prescribed by University of Mumbai. Department has been NBA accredited from 2012-2014, 2021-2024 and NAAC accredited with A+ grade. The college management has always encouraged the student fraternity by announcing scholarships and cash awards for meritorious students. The department has active IEEE Student chapter. Technical and Co-curricular activities are being conducted under IEEE on regular basis.

The department of EXTC was started in 2002. Right from the inception of the institute, it has progressed rapidly, to be regarded, as one of the premiere departments with excellent infrastructure and dedicated faculty. Department is well equipped with laboratories. The department has highly qualified and competent faculty members who specialize in their areas of expertise, in order to give the students a holistic and pragmatic view of the present scenario of Electronics and Communication industry.

## Vision and Mission of Electronics and Telecommunication Department VISION

# To be a Premier Department in Electronics & Telecommunications Engineering MISSION

- To provide quality education satisfying the requirements of corporate world across diverse field.
- To develop life-long learning skills to cater to the socio-economic needs.
- To strengthen Industry-Institute Interaction to bridge the gap between academic and Industrial requirements.
- To equip students with leadership and entrepreneurial skills.

#### **Editors**

Prof. Vaishali Mangrulkar

Prof. Priyanka Kadam

#### Program Educational Outcomes (PEOs)

Graduates will be able to:

- 1. PEO1: Identify, formulate and solve engineering problems in the industry, complying with ethical standards and societal needs.
- 2. PEO2:Pursue higher studies and professional development courses leading to significant advancement in the field of specialization.
- 3. PEO3: Apply technical concepts to develop applications and design products.
- 4. PEO4: Exhibit leadership and entrepreneurial acumen in career.

### Program Specific Outcomes (PSOs) Students should able to

1.PSO1: Achieve eminence in domains like signal processing, VLSI, embedded IoT, RF & microwave.

2.PSO2: Become technocrats capable of working in multi- disciplinary fields.

#### **Department Activities**

- Signed MoU with Greenshift energy Pvt. Ltd.
- IEEE organized National level technical festival Techopedia during 1/2/2024 to 3/2/2024.
- Prof. Biju Balkrishan and Prof. Vaishali Mangrulkar organized IEEE WIE Series: Episode 1:Cracking Open Innovation: Lets Break the Barriers by Ms.Usha Rengaraju, Data Science research at Exa Protocol on 9/7/2023.
- Prof. Biju B. and Prof. Vaishali Mangrulkar organized IEEE WIE Series: Episode 2:Breaking Natures Fury by Ms. Sarayu Kamat, Raah Foundation, Mumbai on 29/7/2023.
- Prof. Biju Balkrishnan and Prof. Vaishali Mangrulkar organized webinar on IEEE WiE Series episode 3: Breaking Grounds in Health Tech by Dr. Celia Shahnaz. Topic:Deep Learning for Computing and Biomedical Applications on 5/8/2023.
- Prof. Biju Balkrishnan organized STEM workshop for Vivekanad Sankul School, Sanpada on 28/8/2023 and at NMMC School No 92, Khulshet, Navi Mumbai on 29/8/2023.
- Prof. Biju Balkrishnan organized an industry expert session by Saurabh Shrivastava, Vice President and Head of Learning and Development, Reliance Jio on Digital Communication for TE EXTC students on 14/9/2023.
- Prof. Biju Balkrishnan organized IEEE Annual Book "Technozine" revealing ceremony on 15/9/2023.
- Prof. Biju Balkishnan organized IEEE SIESGST EPSILON 2023 during 30/9/2023 to 2/10/2023.
- Prof. Biju Balkrishnan organized Guest Lecture for TE EXTC and TE ECS students. Speaker: Aiyappan Pillai, Founder, Congruent Services on 12/10/2023.
- Prof. Biju Balkrishnan organized IEEEXtreme 17.0 International Programming Competition (24 hrs) on 18/10/2023.

- Prof. Vaishali M. and Prof.Nita Patil organized expert lecture for BE EXTC and BE ECS students Speaker: Mr. Manoj Kavedia, Kaizen Futurtech on 20/10/2023.
- Prof. Preeti Hemnani, Prof. Swati Rane, Prof. Shyamala M, and Prof. Madhuri K organized expert lecture in value added course -Image processing and machine learning on topic "Use and Applications of AI and ML" by Mr. Abhay Phanshikar, Business Development Director at Azilen Technologies Pvt Ltd, Mumbai on 3/7/2023.

#### Academic/ Technical achievements of students

 Eight groups of final year students published papers in IEEE conferences and journals.

#### Sports / Cultural achievements of students

- Ms.Prerana Aswal our third year student was a Winner of Badminton tournament organized by University of Mumbai.
- Mr. Umair Khan and Mr. Aryan Thakur second year students secured second prize in Basketball competition organized by University of SECURED SECOND PRIZE Mumbai.
- Mr.Amir Mithagari ,final year student secured second prize in Carrom competition organized by Decathlon.
- Mr.Amir Mithagari final year student secured second position in Volleyball competition held at BVRIT, Kharghar.
- Ms. Kritika Pandey final year student secured second rank in Western Vocal Solo at Youth Festival 2023-24.
- Ms. Gauri Huigol second year secured Consolation prize in Story telling Solo at Youth Festival 2023-24.

#### Faculty achievements

- Prof. Biju Balkrishnan successfully completed 12 weeks NPTEL certified course on Modern Digital Communication Techniques in November 2023 and secured Elite Silver Certificate and is a Topper in this course
- Vaishali Mangrulkar presented paper in International Conference on Emerging Trends in Automation, Communication E-Security(ICETACS-2023), Title: "Self Stabilizing Spoon" held between 20th and 21th July 2023 organized by N.B. Navale Sinhgad College of Engineering" Solapur.
- Dr. Shubhangi Kharche published paper on "Video recognition" in UGC approved Journal JETIR on 6/7/2023.
- Dr. Shubhangi Kharche Published paper on "Data Visualization" in UGC approved Journal JETIR on 6/7/2023.
- Biju Balkrishnan presented paper in 9th IEEE international conference on smart computing and communications ICSCC23, August 2023 Kerala, Title: "Data Analytics of Restaurants Using AI..
- Dr. Preeti Hemnani presented paper titled "Building a cells module for retailers" in ICERI-2023 on 22-23rd September 2023.
- Prof. Vandana Sawant published paper in IEEE xplore "Bus Headcount Analysis App Using Deep Learning" on 6/9/2023.
- Prof. Pranavi Nikam published a paper titled "Voice activated mobility wheel chair powered by solar energy" in International Journal of Innovative science and research

- technology October 2023
- Pratibha Joshi presented paper in IEEE International Conference on Advances in Science and Technology (ICAST-2023) title "Comparative Analysis of different preprocessing techniques for digital mammograms towards breast cancer detection" December 2023.
- Prof. Vandana Sawant ,Priyanka Kadam and Vaishali Mangrulkar presented paper in IEEE international conference on topic 5.8Ghz ISM band low cost button antenna for smart wearable application December 2023

#### **Student Déevelopment Programs:**

- Prof. Vandana Sawant ,Prof. Sonal Hutke and Prof. Hema Gavali organized and conducted value added course on Advanced Antenna Design during 26/6/2023 to 3/7/2023.
- Dr. Preeti Hemnani , Prof. Swati Rane , Prof. Shyamala M and Prof. Madhuri Kulkarni organized and conducted value added course on Image Processing and Machine Learning using Python during 26/6/2023 to 4//7/2023.

#### Seminars/workshops attended by department faculty:

- Prof. Biju Balkrishnan attended 5 days FDP on Recent Trends in High Frequency Communication during 20/2/2023 to 24/2/2023 by Dr. Somak Bhattacharyya, IIT Varanasi at Annant Gyan Knowledge and Skills Pvt Ltd.
- Prof. Biju Balkrishnan participated in IEEE Xplore webinar: Search strategies to maximize your research experience in March 2023.
- Dr. Preeti Hemnani participated in "IEEE Educational Activities Workshop" conducted by IEEE EAC Bombay Section on the occasion of IEEE Education Week 2023 on 6/4/2023.
- Dr.Preeti Hemnani attended and participated IEEE India Council Day seminar and Quiz at D J Sanghvi CoE, Mumbai on 29/4/2023.
- Dr.Shubhangi Kharchre invited at Vivekanand Education Societys Polytechnic College, Chembur for expert talk topic 5G, 6G and IoT: Emerging Technologies with use cases on 11/4/2023.
- Dr. Preeti Hemnani successfully completed course on "Mathematic foundation for Machine learning AI from Eduinox Learning solutions" by Udemy in May 2023.
- Prof. Biju Balkrishnan successfully completed One week IEEE Bombay Section sponsored FDP on "Cloud Computing" by G H Raisoni Institute of Engg and Technology and G H Raisoni College of Engg, Nagpur in May 2023.
- Prof. Biju Balkrishnan participated in 3-days IEEE Bombay Section's Student, Young professionals, Women in engineering and Life member Congress IB-SYWLC 23 at Annasaheb Dange College of Engineering and Technology, Ashta during 23/6/2023 to 25/6/2023.
- All faculties attended STTP on "AR and VR" organized by SIESGST during 19/6/2023 to 24/6/2023.
- Prof. Pranavi Nikam participated in Webinar "How to write a book and get it published as an Auther" organized by Next Gen Publications on 2/7/2023.
- Prof.Biju Balkrishnan attended one week IEEE Bombay section sponsored CBP on "Sustainable

- Development through Traditional Way" by TCET Mumbai during 23/6/2023 to 1/7/2023
- Prof. Biju Balkrishnan attended one week STTP on "Performance Analysis of Wireless Communication System PWCS-2023" by Annant Gyan, Dr. Satyam Agrawal IIT Ropar Punjab during 26/6/2023 to 1/7/2023.
- Prof. Biju Balkrishnan attended orientation of EEE-EBSCO Knowledge Feast 2023 on 2/8/2023.
- Prof. Vaishali Mangrulkar attended FDP on Blooms Taxonomy and constructive Alignment by Dr. A. K. Sengupta on 18/8/2023.
- Prof. Pranavi Nikam attended VLSI design workshop on 4/8/2023.
- Prof. Pranavi Nikam successfully completed course on Linux Fundamentals by Coursera on 4/8/2023.
- Dr. Preeti Hemnani and Prof. Biju Balkrishnan Invited as a expert speaker on topic Outcome based education and NAAC/NBA Preparation at SS Johndale College of Engg and Technology, Asangaon on 10/10/2023.
- All faculties attended and completed STTP on" National Education Policy 2020 and Autonomy in Higher Education Institutions "during 18/12/2023 to 23/12/2023 organized by SIESGST
- Prof. Biju Balkrishnan received certificate of appreciation for volunteered as proctor to guide and oversee competing teams for the IEEEXtreme 17.0 programming competition.

"None can destroy iron, but its own rust can! Likewise ,none can destroy a person, but its own mindset can!"

By Ratan Tata