

Name:

Tanuja Sachin Khatavkar

Designation:

Assistant Professor

**Contact Details:**

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Educational Qualifications:

- M.B.A. (Human Resource Management), YCMOU, Nashik, May 2012
- M.E. (Electronics-Digital Systems), Pune University, Pune, May 2004
- B.E. (Electronics), Shivaji University, Kolhapur, May 1991

Experience:

Teaching: 30 Years

Research Interests:

Optical Communication

Field of Consultancy (Aspiring):

- Optical Communication
- Radiation and Antenna

Number Virtual Experiments Published: 33

Number of Publications:

International Journal: 07

National Journal: 01

International Conference: 02

Number of Books Published: 01

Recognition/ Awards:

- Platinum Certification from IIT Bombay, IIT Kanpur & REC, Banda for development of Virtual Lab for 'Digital Logic Design using Gates' during the National level Bootathon in Nov 2019.
- Awarded for developing Virtual Laboratory for 'Digital Applications' and enhancing the teaching-learning process, by IIT, Bombay.
- Nominated as 1st Regional Coordinator, Virtual Labs, IIT Bombay
- Reviewer/Mentor for Virtual Lab development by VLabsDev - IIT Bombay..
- Cambridge Certified International Teacher Trainer awarded by Cambridge University
- Best Teacher Award by Telecommunication Engineering Student Association, PVG's COET, Pune in 2011.

Professional Society Memberships:

- Life Member-Indian Society for Technical Education (LMISTE)

Number of FDPs / STTPs organized: 03

Number of Workshops organized: 20 +

Number of Conferences / Seminars organized: 02

Number of FDPs / STTPs attended: 02

Number of Workshops attended: 02

Number of Conferences / Seminars attended: 03

Number of Online Certification Courses done: 04

Number of Webinar attended: 30+

Number of times served as a Resource Person: 20+

Number of times served as a Reviewer / Judge: 10+/05+

Details of Virtual Experiments Published:

- Digital Applications Lab (14 Experiments): <https://da-iitb.vlabs.ac.in/>
- Digital Logic Design (Logic Gates & Mux-Demux) (13 Experiments): <https://dld-iitb.vlabs.ac.in/>

- Integrated Circuit Analysis (6 Experiments): <http://vlabs.iitb.ac.in/vlabs-dev/>

Details of Research papers published:

- Tanuja Khatavkar, et.al., MITRA: Artificial Intelligence based Interactive Companion, TEST Engineering and Management, Vol. 83, May-June 2020
- Tanuja sachin Khatavkar et.al., Celestial Object Tracker using Automated Equatorial Mount for Astrophotography, International Journal of Advanced Science and Technology, Vol. 29 No. 8s (2020) Special Issue.
- Prof T S Khatavkar et.al., Floating Garbage Detection Using Tensorflow Lite, International Journal of Research And Analytical Reviews (IJRAR) 7 (2), 455-460, May-June 2020.
- T S Khatavkar et. al., MITRA: Artificial Intelligence based Interactive Companion, International Conference on Emerging Trends in Engineering and Technology (ICETET-2020), 28-29th May 2020.
- T. S.Khatavkar et.al., Enhancing Capacity of Existing Fiber Optic Link Performance to 128 Terabit/s-Km using Multi-Pumped Raman Amplification Scheme, IEEE Conference ID: 42835, International Conference on Computing for Sustainable Global Development; 12th INDIACom-2018 -IEEE Xplore.
- T S Khatavkar et.al., 1Tb–100 km DWDM Link using only Raman Amplification Scheme over C and L band with BER of 10^{-20} , International Journal of Electronics, Electrical and Computational System, IJEECS, December 2016.
- T S Khatavkar et.al., 1Tb–100 km DWDM Link using only Raman Amplification Scheme over C and L band with BER of 10^{-20} , 8th International Conference on Innovative Research in Engineering Science and Management (ICIRESM-16), 2016
- T.S.Khatavkar,et al., OSNR Challenge in DWDM Link, International Journal of Electronics and Communication Engineering & Technology (IJECET), Volume 5, Issue 2, February 2014.
- T.S.Khatavkar,et al., Parking Management System, International Journal of Modern Engineering Research (IJMER), Vol.4, Issue 2, Feb 2014.
- T.S.Khatavkar,et al., Fault Tolerant WDM Network, Annual Technical Journal, IETE, Vol 34, 2004.

Details of books:

Network Fundamentals and Analysis, WILEY INDIA, 978-81-265-1999-6

Details of FDPs / STTPs attended in last 5 years:

- AICTE Training and Learning (ATAL) FDP on Life Skills for Self-Discovery, Competency and Productivity, 9th Aug to 13th Aug 2021.
- Faculty Orientation Workshop, SPPU BOS (E & TC)-Third Year Electromagnetics Field Theory, 2019 Course, 20th to 22nd July 2021.
- AICTE Training and Learning (ATAL) FDP on Framework for Online Assessment, 12th to 16th July 2021.
- Online Course on Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials” which was conducted by Indian Institute of Remote Sensing (IIRS),ISRO Dehradun, during 13-06-2020 to 01-07-2020.
- Three Week Online Course on Sustainable Farming- Principles and Practices, offered as UNESCO initiative towards Open Education for Better World (OE4BW) from 18th May to 7th June 2020.
- One Week Online Faculty Development Program on “Scilab” with course material provided by the Talk To A Teacher project at IIT Bombay organized under Spoken Tutorial Project, IIT Bombay, funded by NMEICT, MHRD, Govt. of India from 18th to 22nd May 2020.
- One week FDP on Promoting Quality Culture in technical institutions from 25th to 29th May 2020.
- Certified for 12 weeks NPTEL (MHRD) Online Certification on Digital Circuits (Credits: 03)-Elite performance during July to October 2018. Received NPTEL ONLINE Certification on Digital Circuits: Performance – ELITE TOPPER 83 % - In TOP 5 %
- Certified for 4 weeks NPTEL (MHRD)-AICTE - Faculty Development Programme on ‘Outcome Based Pedagogic Principles for Effective Teaching’ during August – September 2018. Received NPTEL ONLINE Certification on Outcome Based Pedagogical principles for Effective Teaching: Performance –ELITE 72 %

Details of Online Certification Courses:

- SWAYAM ARPIT Course Certification on Skills for New Educational Architecture, 16th Feb 2020.
- SWAYAM ARPIT Course Certification on Pedagogical Innovations & Research Methodology, 30 March 2019.
- SWAYAM ARPIT Course Certification on Refresher Course on Leadership and Governance in Higher Education, 30 March 2019.

Major Portfolios Handled: (college level and department level)

- Regional Coordinator (Pune) – Virtual Labs- IIT Bombay
- Faculty Coordinator – TEDxPVGCOET
- Convener - Admission Cell
- Spoken Tutorial Coordinator-IIT Bombay
- Nodal Coordinator – PVG's COET
- Research & Development Department Coordinator
- Result Analysis Incharge
- Department Library Incharge

Role in University Bodies

- Member LIC Committee, SPPU
- Paper Setter
- Resource Person for BOS (E & TC) Faculty Orientation Workshops (04)

Continuing Education-Professional Development Hour (PDH)

- Received Certificate of Completion on 'Multi-Physics Simulation – Critical Systems Driven Product Development Strategies for Smart Appliances/White Goods ' by IEEE Continuing Education (1 Professional Development Hour) on 21st Feb 2018.
- Received Certificate of Completion on 'The Importance of Reducing Dust Accumulation in Electronics Systems' by IEEE Continuing Education (1 Professional Development Hour) on 21st Feb 2018.
- Received Certificate of Completion 'Which Optical Measurement Sensor Is Best?' by IEEE Continuing Education (1 Professional Development Hour) on 26 January 2018.
- Received Certificate of Completion 'Frequency-Modulated Charge Pumping for Highly Leaky MOS Devices' (1 Professional Development Hour) by IEEE Continuing Education (1 Professional Development Hour) on 20th Dec 2017.

- 26. Received Certificate of Completion 'Diagnose and debug board level EMC Compliance Problems with chambers on your desktop in seconds' by IEEE Continuing Education (1 Professional Development Hour) on 22 Dec 2017.
- Received Certificate of Completion '3D Printing's Versatility Enables Medical Innovation', by IEEE Continuing Education (1 Professional Development Hour) on 20th Dec 2017.
- Received Certificate of Completion 'Problems in Big Data: Understanding Cities through Data Analytics and Embedded Systems', by IEEE Continuing Education (1 Professional Development Hour) on 28th Nov 2017.

SWAYAM –NPTEL MOOC Content Creation Collaboration with IIT Bombay:

- Collaboration Coordinator for PVG with Prof Dr Vikram Gadre, EE Dept, IIT Bombay & GHRCE internship
- Collaborative Industry project internship for 70 + students
- Teaching Associate opportunity for students for the Swayam MOOC & KITE workshop for TEQIP-3 institutes.
- Ongoing internship with IITB_50 students
- Atma Nirbhar Bharat Project Competition-DSP
- Alternative pedagogical endeavor for IITB student's evaluation.