

Name:

Prof. Mrs. T. S. Khatavkar

**Designation:**

Assistant Professor

Contact Details:

Email id: tsk_entc@pvgcoet.ac.in

Phone Number with extension: 020 24228258 / 65 / 79

Educational Qualifications:

ME (Electronics) Specialization -Digital Systems

MBA (Human Resource Management)

Experience:

32 years and 2 months

Research Interests:

- Educational Technologies
- Optical Communication

Research Projects:

- Virtual Lab experiments pedagogical design approach for engaging - interactive teaching-learning process.

Number of Publications: 16

International Journal:10

National Journal:01

International Conference:05

https://scholar.google.com/citations?hl=en&user=_R2pDckAAAAJ

Number of Books / Book chapters Published: 01

Virtual Experiments Published on MoE (Ministry of Education-Govt. of India)

Virtual Lab website: 27

<https://da-iitb.vlabs.ac.in/>

<https://dld-iitb.vlabs.ac.in/>

#Virtual Experiments Published on VLabsDev: **06**

Recognition/ Awards:

- Awarded with the prestigious 'Adarsh Shikshak Puraskar' for exemplary work in Education by the International Association of Lions Club on 5th September in 2021 at the hands of Hon. Dr M G Takawale, Ex-Vice Chancellor of Shivaji University.
- Appreciated for the SWAYAM –NPTEL MOOC Content Creation in Collaborative mode with conglomerate student/faculty groups from PVG's COET, G H Rasoni and IIT Bombay under the mentorship of Professor Dr Vikram Gadre, Electrical Engineering Department, IIT Bombay.
- Coursework Content Creator for Virtual Lab Development Coursework (Pedagogy & Storyboard Canvas Development) designed for Faculties from Electronics domain and hosted by VLabsDev - IIT Bombay.
- Certified Resource person/Reviewer/Mentor by Virtual Labs - IIT Bombay for the pedagogical endeavor of Virtual Lab development Workshops/ Bootcamps and Bootathons held in Pune, Thane, Vadodara, Rajkot (Gujarat), Aurangabad and Banda in Uttar Pradesh including the Knock Down the Lock Down online KTL Bootathons
- Awarded the Platinum Certification from Virtual Labs - IIT Bombay, IIT Kanpur & REC, Banda, Uttar Pradesh for development of Virtual Lab during the National Level Bootathon in Nov 2019.
- Received recognition as Post Graduate Teacher of Savitribai Phule Pune University under the Faculty of Science & Technology in the subject of Electronics and Telecommunication with effect from 20th March 2019 valid till the age of superannuation.

- Received an Award for Developing Virtual Laboratory and enhancing the teaching-learning process at the hands of Professor Dr Santosh Noronha, Principal Investigator-Virtual Labs, IIT Bombay in 2016.
- Cambridge University Certified International Teacher Trainer.
- Nominated as 1st Regional Coordinator in the country, by Virtual Labs, IIT Bombay.
- Awarded 'A' Grade in the Online Quiz Competition titled 'Bird Identification', conducted by the ENVIS Resource Partner on Avian Ecology at Bombay Natural History Society (BNHS-ENVIS), on the occasion of World Environment Day celebrated on 5th June 2021.

Professional Society Memberships:

- Life Member ISTE: LMISTE 26397

Number of FDPs / STTPs organized: 09

Number of Workshops/Seminars organized: 52

Number of FDPs / STTPs attended: 46

Number of Workshops attended: 12

Number of Conferences / Seminars attended: 03

Number of Webinar attended: 31

Number of times served as a Resource Person: 40

Number of times served as a Reviewer / Judge: 09

Details of Research papers published:

- Swapnil Andhale, Raghav Malu, Vyankatesh Potdar, Prof. Tanuja Sachin Khatavkar, "Video Summarization using NLP", International Journal of Science & Engineering Development Research, Vol. 8, Issue 6, Page No: 462 - 465, June 2023.

- Vedika Sanjay Jangam, Shruti Vikram Sohoni, Mayuri Ganpati Vanjole, Varsha Vithhal Date, Mrs. Tanuja Sachin Khatavkar, Smart monitoring system for manhole using IOT, International Journal of Scientific Development and Research, Vol. 8, Issue-5, Page No: 2183 - 2193, May 2023.
- M. Khanapurkar, T. Khatavkar, K. Akant, S. Joshi, P. M. Potdar and M. Atre, "Implementation of Learner Generated MOOC Through Inter-Institute Faculty - Student Peer Collaboration," *2022 IEEE Global Engineering Education Conference (EDUCON)*, Tunis, Tunisia, 2022, pp. 597-602, doi: 10.1109/EDUCON52537.2022.9766763.
- Kumar V Kulkarni JR, Kulkarni SS, Inamdar MU, Tamhankar NM, Waghmare SB, Thombare KR, Mhetre PS, Khatavkar T, Panse Y, Patwardhan A, Soman Y, Bhagat P, Bhale S, Prabhune MG, "Satark": Landslide Prediction System over Western Ghats of India, MDPI - Land 20222, Vol.5, Land 11, no.5:689, May 2022.
- Soham Sheth, Dr. Mrs M P Atre, Prof. M. P. Potadar, Prof Mrs T S Khatavkar, Image Super-Resolution Using an Efficient Sub-Pixel Convolutional Neural Network, International Journal of Creative Research Thoughts, Nov 2021, Vol.9, Issue-11, pages: a668-a679.
- Shubham Dangi, Mandar Phutane, Adil Patel, Tanuja Khatavkar, Autonomous Bot Assistant in Covid-19 Patient Isolation Wards, 2021 IEEE Pune Section International Conference (PuneCon) MIT ADT University, Pune, India, Dec 2021.
- Soumitra Kavathekar, Samrudhi Inamdar, Sanika Pawar, Abhijeet Kasab, Tanuja Khatavkar, MITRA: Artificial Intelligence based Interactive Companion, International Conference on Emerging Trends in Engineering and Technology (ICETET-2020), TEST Engineering and Management, Vol.83, Issue: May/June 2020, pages: 17754-17762, June 2020.
- Mohammad Hafiz Shaikh, Akshay Vijay Dandekar, Shantanu Ganesh Susar, Shreyash Vijay Ankam, Prof. Tanuja Sachin Khatavkar, Celestial Object Tracker using Automated Equatorial Mount for Astrophotography, International

Journal of Advanced Science and Technology, Vol.29, Special Issue, Pages: 7255-7265, June 2020.

- Prof. T.S. Khatavkar Swaraj Tembhone, Rutvij Joshi, Hrishikesh Hallur, Floating Garbage Detection Using TENSORFLOW LITE, International Journal of Research and Analytical Reviews (IJRAR), Vol. 6, Issue-2, pages: 455-460, May 2020.
- Tanuja S Khatavkar, Dr. D. S. Bormane, R.W. Pattarkine, 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), Dec 2016.
- Tanuja S Khatavkar, Dr. D. S. Bormane, R.W. Pattarkine, 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, pages:46-53, Dec 2016.
- T. S. Khatavkar and Prof. (Dr). D. S. Bormane, OSNR CHALLENGE IN DWDM LINK, International Journal of Electronics and Communication Engineering & Technology (IJECET), Vol. 5, Issue -2, Feb 2014.
- SB Baglane, M.S. Kulkarni, SS Raut, TS Khatavkar, Parking Management System, International Journal of Modern Engineering Research, Vol.4, Issue - 2, Feb 2014.
- T S Khatavkar, Dr C V Joshi, Fault Tolerant WDM Network, Annual Technical Journal, IETE 34, 2004

Details of books / book chapters published:

- Network Fundamentals and Analysis, Published by WILEY Publication

ISBN: 9788126519996

Details of FDPs / STTPs attended in last 5 years:

- Three Days online workshop titled "Role of Engineering Mathematics in NEP" organized by Department of Mathematics COEP Technological University, Pune between the period from 3rd Aug to 5th Aug 2023.

- Participated in Three Days AICTE- UHV (Universal Human Values) program organized by PVG's COET & GKPIOM between 3-04-2023 to 5-04-2023.
- Faculty Orientation Workshop on BE(E&TC) revised syllabus (2019C) Subject: Innovation & Entrepreneurship, under the aegis of Board of Studies (E&TC), Savitribai Phule Pune University, organized by, Dept. of E&TC Engineering, Dr. D. Y. Patil Institute of Technology, Pimpri, Pune between 30-01-2023 to 31-01-2023
- Two Days National Workshop for Faculties on "National Education Policy-2020 and Industry-Institute Linkage NEPIIL -2023 at TSSM's BSCOER, Pune between 16-02-2023 to 17-02-2023.
- Three days Faculty Orientation Workshop on BE (E&TC) revised syllabus 2019 course was conducted by Prof T S Khatavkar of department of E & TC under the aegis of BoS (E & TC), SPPU, Pune for the subject " Fiber Optic Communication" between 30-01-2023 to 1-02-2023
- NPTEL NOC 4 Weeks FDP Workshop on *Patent Drafting for Beginners*, IIT Madras between 23-01-2023 to 17-02-2023
- Three –days Faculty Orientation Workshop under the aegis of Board of Studies (E & TC) – SPPU on revised syllabus 2019 for the subject "Radiation & Microwave Theory" between 14-07-2022 to 16-02-2023
- AICTE – Three Days Workshop on Examination Reforms", in online mode conducted by AICTE between 10-01-2022 to 12-01-2022
- Three Days Workshop on GIS for River Mapping" under the Faculty category, organized by the GISE Hub at IIT Bombay, funded by the Department of Science and Technology, Govt. of India between 26-05-2022 to 28-05-2022
- NRB-DRDO sponsored Three-day Workshop on "Recent Trends in Underwater Communications" organized by Shri Vishnu College for Women, Andhra Pradesh between 25-11-2021 to 27-11-2021
- Three Days online Faculty Development Program on "Git", organized by PVG's COET & GKPIOM, in association with Spoken Tutorial Project, IIT Bombay between 22-11-2021 to 24-11-2021
- Five Days National Level FDP on "Trends and Innovations in Healthcare" organized by VIIT, Pune in association with IEEE, Instrument & Measurement Society Pune Society between 25-10-2021 to 29-10-2021
- One Week **AICTE -ATAL FDP** on "High Speed Optical Links and Photonic Devices for Next Generation Data Transmission between 11-10-2021 to 15-10-2021
- One Week AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Life Skills for Self-Discovery, Competency & Productivity" at Sant Gadge Baba Amravati University between 09-08-2021 to 13-08-2021

- One Week AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Framework for Online Assessment" at National Institute of Technical Teachers Training & Research **between** 12-07-2021 to 16-07-2021
- Workshop for Faculty on "Healthcare Innovations during COVID Outbreak" organized at PDPM Indian Institute of Information Technology, Design & Manufacturing between 25-06-2021 to 26-06-2021
- One Week Faculty Development Program on "Interactive Teaching Learning Strategies with Affective & Cognitive Approach (ITLS)" organized by PVG's COET & GKPIIM between 21-06-2021 to 25-06-2021
- One Week Short Term Training Programme (STTP) through ICT mode on "Course on Ancient Engineering, Science and Technology" organized by (National Institute of Technical Teachers Training and Research (NITTR) Kolkata (Established by Ministry of Education, Govt. of India) between 21-06-2021 to 25-06-2021
- One Week Short Term Training Programme (STTP) through ICT mode on "Skill Assessment in Laboratory and Workshop Classes" organized by (National Institute of Technical Teachers Training and Research (NITTR) Kolkata (Established by Ministry of Education, Govt. of India) between 7-06-2021 to 11-06-2021
- One Week Faculty Development Program on "Interactive Teaching Learning Strategies with Affective & Cognitive Approach (ITLS)" organized by PVG's COET & GKPIIM between 21-06-2021 to 25-06-2021
- Three-week online course on "Sustainable Farming-Principles and Practices" offered as UNESCO initiative towards open education for Better World between 18-05-2020 to 7-06-2020
- Five Days Distinguished Alumni Talk series organized by Dept. Of E & TC, PVGs COET between 20-07-2020 to 25-07-2020
- Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials" which was conducted by Indian Institute of Remote Sensing (IIRS), ISRO Dehradun between 13-06-2020 to 01-07-2020
- Three Days National Level Online FDP on OUTCOME BASED EDUCATION organized by Internal Quality Assurance Cell, PVG's College of Engineering and Technology, Pune-09 in association with INPODS India Pvt. Ltd. between 6-10-2020 to 8-10-2020
- AICTE Training and Learning (ATAL) Academy Online FDP on "Sensors Technology" at Dr. Ambedkar Institute of Technology between 21-09-2020 to 25-09-20220
- AICTE Training and Learning (ATAL) Academy Online FDP on "Flexible and Wearable Antennas: Recent Advancements, Fabrication Techniques and Applications " at National Institute of Technical Teachers Training and Research. between 12-10-2020 to 16-10-2020

- Two Days Certified Webinar series for Faculties on Research Paper Writing and IPR organized by RIT, IEEE (B) & IETE between 18-05-2020 to 19-05-2020
- One week FDP on Promoting Quality Culture in technical institutions between 25-05-2020 to 29-05-2020
- AICTE Approved FDP of 16 weeks (Swayam online training)- ARPIT (Annual Refresher Programme in Teaching (ARPIT)) on the subject Skills for New Educational Architecture between 1-09-2019 to 15-01-2020
- National Bootathon at Rajkiya Engineering College, Banda, Uttar Pradesh, coordinated by IIT Bombay, IIT Delhi, IIT Kanpur and funded by TEQIP-III & supported by IEEE & STARTUP UP between 2-11-2019 to 10-11-2019
- 'Mentor On-line Training for Faculties' conducted by IIT Bombay-Vlabs team between 19-09-2019 to 29-09-2019
- Blended mode workshop for Faculties on Moodles Learning Management System organized by TLC(ICT) at IIT Bombay, funded by PMMMNMTT, MHRD, Govt.of India on 15-03- 2019
- 2nd National Bootcamp/(5-days STTP) on Virtual Lab Development by Gujarat University, Ahmedabad between 9-01-2019 to 13-01-2019 on 11-07-2018
- Four weeks NPTEL (MHRD)-AICTE - Faculty Development Programme on 'Outcome Based Pedagogic Principles for Effective Teaching' between 1-08-2018 to 30-09-2018
- 12 weeks NPTEL (MHRD) Online Certification on Digital Circuits (Credits: 03)- Elite performance between 1-07-2018 to 30-10-2018
- MHRD- Annual Refresher Programme in Teaching (ARPIT- March 2019) for the subject "Pedagogical Innovations and Research Methodology", 40 hrs course. between 1-11-2018 to 15-01-2019
- MHRD- Annual Refresher Programme in Teaching (ARPIT- March 2019) for the subject "Refresher Course on Leadership and Governance in Higher Education", 40 hrs course between 1-11-2018 to 28-02-2019

Major Portfolios Handled: (college level and department level)

- Regional Coordinator - Virtual Labs since 2016 till date
- Nodal Coordinator - Virtual Labs between 2015 to 2017
- IIT Bombay - DSP Internship Initiator & Collaborator since 2020 till date

- TEDxPVGCOET - Faculty Coordinator since 2019 till date
- SPOC - PVG - TMI Collaboration since 2021 till date
- Distance/Online Education Coordinator 2023 onwards
- Admission Committee Coordinator
- Reporting Authority for Spoken Tutorial & Virtual Labs between 2019-2024
- R & D Coordinator since 2018 till date
- Department Library Coordinator
- Mentor
- Vidyarthini Manch

Role in University Bodies:

- Chairman for various SE/TE/BE/ME subjects
- Paper Setter for various subjects
- Syllabus Drafting & Setting for SE/TE/BE
- BOS-FDP Resource Person-SE, TE & BE subjects
- External & Internal Examiner
- Paper Assessment
- Moderation
- Squad Committee member
- LIC Committee member
- Governing Body nominee (Subject Expert) in the Selection Committee
- External Senior Supervisor
- Internal Senior Supervisor & Junior Supervisor

Any other information which is not covered in above points:

- Social Community Contribution: Worked as a member of the Center for Citizen Science since 2016 till date on various projects such as the Satark-Landslide Prediction System that gave alerts to the society during monsoons, Lonar meteoritic lake study - survey project, and other astronomical, monsoon monitoring, sound pollution monitoring, mushroom species in Pune region & other Earth Science projects.
- Motivated students to work on collaborative social projects sponsored by the Center for Citizen Science on Quadcopter for vertical temperature profile and air-microbial sample collection for rainfall prediction, Rainfall Cloud Monitoring

& Prediction system, pollution monitoring using Null School data & Radar data etc.

- Creating awareness amongst the rural area- school children regarding ICT tools.

Inspiring students for various celebrations such as Kargil Vijay Diwas, National Science Day by arranging activities and visits to GMRT, IUCAA and enable students to volunteer for GMRT