

**Dr. Babar Supriya Pratap, Ph.D.**

**Assistant Professor**

**Email:** [supriyababar@ternaengg.ac.in](mailto:supriyababar@ternaengg.ac.in)

**Address for Correspondence:**

Flat No. 402, Murari Krishna CHS Ltd. Plot No-28, Sector-10, Kamothe,  
Navi Mumbai-410209



**Professional Qualification:**

- **Ph.D. in Organic Chemistry (Green Chemistry), 2020**  
The Institute of Science, Dr. Homi Bhabha State University (University of Mumbai)
- **Master of Science, 2011**  
The Institute of Science, Dr. Homi Bhabha State University (University of Mumbai)
- **Bachelor of Science, 2009**  
Maharshi Dayanand College of Arts, Science and Commerce, Parel, Mumbai.

**Short Biodata:**

Dr. Babar Supriya Pratap is currently an Assistant Professor in the Department of General Engineering at Terna Engineering College, Nerul, Navi Mumbai. She has a total of 7 years of teaching and research experience. She earned her Doctorate (PhD) in Organic Chemistry from the University of Mumbai in August 2020. Her major research interest is Green chemistry, solvent-free synthesis, Heterogeneous catalyst. She received her bachelor's degree in Chemistry from M. D. College, Parel and a master's degree in Organic Chemistry from the The Institute of Science (University of Mumbai). She completed her secondary and higher secondary education from Dr. Shirodkar High school, Parel, Mumbai. She qualified PET exam of University of Mumbai in 2012. She has published 11 research papers in peer-reviewed international and national journals and 02 papers in the international conference proceeding with 01 book chapter. She is reviewer of journals and book.

**Reviewer:**

- Asian Journal of Advances in Agricultural Research
- International Journal of Plant & Soil Science.
- Book : Recent Development in Chemistry and Biochemistry Research
- Journal of Advances in Medicine and Medical Research
- International Research Journal of Pure and Applied Chemistry

**Major Subjects:**

- Organic Chemistry
- Green Chemistry

**Citation Analysis:**

11 citations (h-index 2 and i10-index 2) in Google scholar

<https://scholar.google.com/citations?user=BwC1xlcAAAAJ&hl=en>

## List of Publications:

### Journal Publications:

1. Alka Khade, **Mahadu A. Trimukhe**, Shubhagini Verulkar and R. K. Gupta “Miniaturization of Printed Rectangular Monopole Antenna by Using Slots for Triple Band Applications” *Progress in Electromagnetic Research C*, vol. 130, pp. 155-167, Feb 2023.
2. S. Verulkar, A. Khade, **Mahadu A. Trimukhe**, and R. K. Gupta “Dual Band Split Ring Monopole Antenna Structure for 5 G and WLAN Applications” *Progress in Electromagnetic Research C*, vol. 122, pp. 17-30, July 2022.
3. Alka Khade, **Mahadu A. Trimukhe**, S. Jagtap, and Rajiv Gupta “A Circular Sector with an Inverted L Shaped Monopole Antenna for Tri-Band Applications”, *Progress in Electromagnetic Research C*, vol. 118, pp. 177-186, January 2022.
4. Anju Gawas, **Mahadu A. Trimukhe**, Balaji Hogade and Rajiv Gupta “A Compact UWB Antenna with Triple Band-notched Characteristics” *International Journal of Microwave and Optical Technology*, Vol 15, No-05, Sept. 2020.
5. **Mahadu A. Trimukhe**, Balaji G. Hogade “Mahadu A. Trimukhe, Balaji G. Hogade “Compact UWB antenna with Tunable Band-Notch Characteristics Using Varactor Diode,” *Progress in Electromagnetic Research C*, vol. 97, pp. 15-28, November 2019.
6. **Mahadu A. Trimukhe**, Balaji G. Hogade “Compact Ultra-wideband Antenna with Triple Band Notch Characteristics using EBG structures,” *Progress in Electromagnetic Research C*, vol. 93, pp. 65-77, June 2019.
7. **Mahadu A. Trimukhe**, Balaji G. Hogade “Design of the Compact Ultra-Wideband (UWB) Antenna Bandwidth Optimization using Particle Swarm Optimization Algorithm,” *Iranian Journal of Electrical & Electronic Engineering (Iran)*, vol. 15, no. 2, pp. 195-202, June 2019.
8. **Mahadu A. Trimukhe**, Balaji G. Hogade “Design and Simulation of effects corresponding to Reduced conducting area using Slotted Meandering Line for Compact Ultra -Wideband (UWB) Antenna,” *Journal of Communication (USA)*, vol. 14, no. 4, pp. 318-323, April 2019.
9. **Mahadu A. Trimukhe**, Balaji G. Hogade “Design of Multiband Antenna Operation Based on Electromagnetic Band Gap Structure” *IOSR Journal of Engineering (IOSRJEN)*, pp. 52-22, 2018.
10. **Mahadu A. Trimukhe**, V. B. Gaikwad, “Adaptive Nonseparable Wavelet Transform via Lifting and Its Application to Content-Based Image Retrieval”. *International Journal of Computer Application, ICCIA*, Vol. 50, No. 5, Feb 2012.

## Conferences:

1. **Mahadu A. Trimukhe**, Balaji G. Hogade “Gain Enhancement of Compact UWB Antenna Using Planar Reflector,” *4<sup>th</sup> IEEE International Conference on Communication and Electronics Systems, 17<sup>th</sup> - 19<sup>th</sup> July 2019.*
2. Anju Gawas, **Mahadu A. Trimukhe** “A Study of Band Notching Technique used in UWB antennas”, *4<sup>th</sup> International Conference of Engineering Confluence (Equinox 2018) 26<sup>th</sup> -28<sup>th</sup> Sept. 2018* at Terna Engineering College, Nerul, Navi Mumbai.
3. Vaibhav Magar, Anjali Rochkari and **Mahadu A. Trimukhe**, “Extraction of Image Texture and colour Features: CBIR Techniques,” *4<sup>th</sup> International Conference of Engineering Confluence (Equinox 2018) 26<sup>th</sup> -28<sup>th</sup> Sept. 2018* at Terna Engineering College, Nerul, Navi Mumbai.
4. **Mahadu A. Trimukhe**, Balaji G. Hogade “Miniature low profile UWB Antenna with defective ground plane” *IEEE 2<sup>nd</sup> International Conference on Inventive Communication and Computational Technologies*, pp 111-114, 20<sup>th</sup> -21<sup>st</sup> April 2018.
5. **Mahadu A. Trimukhe**, Balaji G. Hogade, “Design of Multiband Antenna Operation Based on Electromagnetic Band Gap (EBG) Structure,” *4<sup>th</sup> International Conference of Engineering Confluence (Equinox 2018) 26<sup>th</sup> -28<sup>th</sup> Sept. 2018* at Terna Engineering College, Nerul, Navi Mumbai.
6. **M. A. Trimukhe**, Dr. B. G. Hogade “Content-Based Image Retrieval Using Texture and Color Features” *3<sup>rd</sup> International Conference on Engineering Confluence (Equinox 2017) 21<sup>st</sup> -23<sup>rd</sup> Sept. 2017* at Terna Engineering College, Nerul, Navi Mumbai

## Book Chapter

1. **Mahadu A. Trimukhe**, Balaji G. Hogade “A Compact Ultra-wideband (UWB) Antenna with Dual Band-Notched Characteristic-based on Small Size Electromagnetic Band-Gap (EBG) Structure,” *Lecture Notes on Data Engineering and Communications Technologies (Springer)*, chapter 9, vol. 36, pp. 74-84, ICWiCOM 2019.

## STTP & Workshops Attended

1. STTP Attended “Image Processing” July 06-10, 2009, TEC, Nerul.
2. STTP Attended “Role of Technology in Environmental Conservation” Jan 04-08, 2010, SIES, Nerul.
3. Participated in a “Faculty Development Program TI Microcontroller” TEXAS Instrumentation, Bangalore Feb-7-11, 2011.
4. STTP Attended “Embedded System & Real Time Programming” July 11-15, 2011, TEC, Nerul.

5. STTP Attended “Wireless Communication” July 2012, TEC, Nerul.
6. Attended Control System Workshop Conducted By IITKP Kharagpur 15 Sept to 20 Sept 2014
7. Attended “Skill India” one-day workshop at VJTI on 25 Feb 2016.
8. Two Days of Workshops on “Patch Antenna Design and Testing” on 14<sup>th</sup> & 15<sup>th</sup> January 2017 at SPIT Andheri, Mumbai.
9. One-day Workshop on “Wireless Networks” at Terna Engineering College in association with TeleNetworks Technologies on 21 Sept. 2017.
10. Two days workshop on “Effective Research Methodology” from 5<sup>th</sup> January 2018 to 6<sup>th</sup> January 2018 at Terna Engineering College, Nerul, Navi Mumbai
11. Two Days state-level workshop on “Design Challenges in Reconfigurable Antenna” on 22 & 23 February 2018 at JSPM, Wagholi, Pune.
12. Two days Workshop on “Research Proposal and Technical Paper” Writing 8<sup>th</sup> and 9<sup>th</sup> April 2016 at SPIT, Andheri, Mumbai.
13. Five days of Workshops on “Design and Development of Planar Antennas” from June 25- 29, 2018 at Terna Engineering College, Nerul, Navi Mumbai.
14. One-day Workshop on “Intellectual Property Rights” on 4<sup>th</sup> August 2018 at Terna Engineering College, Nerul, Navi Mumbai.
15. Participated in the Inauguration function of Lotfi Zadeh Center of Excellence Health Sciences and Technology on Sept. 26, 2018, organized by Terna Research Society, Terna Campus, Nerul, Navi Mumbai.
16. A one-day workshop on “MATLAB simulation” on 3<sup>rd</sup> January 2019, EXTC department at Terna Engineering College, Nerul, Navi Mumbai.
17. Four days workshop on “Network Associate” at Terna Engineering College in association with TeleNetworks Technologies on 07-10 Feb.2019.
18. A five-day workshop on “Cyber Security and Laws” at Terna Engineering College, association with TeleNetworks Technologies on Sept. 13-17, 2019.
19. Attended online one-week Faculty Development Program (FDP) on “Scilab Programming” organized by the National Institute of Technical Teachers Training and Research (*NITTTR*) Chandigarh, from 14 April – 18 April 2020.
20. Participated in a one-week online FDP on “Python 3.4.3” by Spoken Tutorial Project, IIT, Bombay from 25<sup>th</sup> April – 30<sup>th</sup> April 2020 remotely at Sinhgad Institute of Technology, Lonavala.

21. Attended online one-week Faculty Development Program (FDP) on “Teaching and Learning for Accreditation in Technical Education” organized by the National Institute of Technical Teachers Training and Research (*NITTTR*) Chandigarh, from 27<sup>th</sup> April – 01<sup>st</sup> May 2020.
22. Passed an online “Python 3.4.3” exam conducted remotely at IIT, Bombay (Spoken Tutorial) on 08<sup>th</sup> May 2020.
23. Participated in online one-week FDP on “Research Funding Projects and IPR” organized by K. C. College of Engineering and Management Studies and Research, Thane, from 07<sup>th</sup> May – 10<sup>th</sup> May 2020.
24. Attended Faculty Development Program (FDP) on “v2” on 13<sup>th</sup> May -14<sup>th</sup> May 2020, organized by North Form Academy.
25. Attended FDP on “TCS Research Capabilities and Innovation” organized by Terna Engineering College, Nerul on 14<sup>th</sup> May 2020.
26. Attended a one-week online FDP on “Machine Learning and Deep Learning Application in Engineering and Science” organized by the Government College of Engineering, Karad, from 16<sup>th</sup> May – 20<sup>th</sup> May 2020.
27. Participated in a one-week online FDP on “Arduino” by Spoken Tutorial Project, IIT, Bombay from 19<sup>th</sup> May – 24<sup>th</sup> May 2020 remotely at Jaihind College of Engineering, Pune.
28. Attended a one-week online FDP on “Artificial Intelligence” organized by the Department of IT, Christian College of Engineering, Tamil Nadu, from 22 May – 26<sup>th</sup> May 2020.
29. Attended a one-week online FDP on “Artificial Intelligence” organized by AICTE ATAL and conducted by NITTTRC from 25<sup>th</sup> May – 29<sup>th</sup> May 2020.
30. Attended three days online workshop on “Demonstration of Software Testing (Automation)” organized Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar in association with Scripting Logic, Pune held on 26<sup>th</sup> May – 28<sup>th</sup> May 2020.
31. Attended a one-week online FDP on “Antenna Design and Measurements” organized by Pillai College of Engineering, New Panvel, on 03<sup>rd</sup> -07<sup>th</sup> June 2020.
32. Attended a one-week workshop on “Cyber Security Awareness” organized by the Department of Electronics and Telecommunication Engineering, Terna Engineering College, Nerul from 07-11 Oct 2022 association with Tele Networks Technology Private Limited.

**Online Webinars Attended:**

1. Attended COMSOL Web Workshop on “RF and Microwave” on 21 April 2020.
2. Attended the “Teaching with MATLAB” webinar on 06<sup>th</sup> May 2020 organized by Matlab and Simulink.

3. Attended Expert Lecture on “IPR and Patenting” on 11<sup>th</sup> May 2020, organized by Pillai HOC College of Engineering and Technology, Rasayani, Raigad.
4. Attended online “Turnitin online demonstration” organized by Terna Engineering College, Nerul dated 20 April 2020.
5. Attended Webinar on “Unlimited Mind Power” on 16<sup>th</sup> May 2020, organized by the Department of Electronics, SNDT Woman University, Premlila Vithaldas Polytechnic.
6. Attended a Webinar on “Antenna Designing through Simulation Using TaraNG: 19.1” organized by Pillai College of Engineering, New Panvel on 18<sup>th</sup> May 2020.
7. Attended Webinar on “Students Training Programs” on 19<sup>th</sup> May 2020, organized by Sinhgad Institute of Technology, Lonavala, Pune.
8. Attended Webinar on “Problem/Project-based learning” on 20<sup>th</sup> May 2020, organized by Sinhgad Institute of Technology, Lonavala, Pune.
9. Attended Webinar on “Recent Trends in Digital Image Processing” on 20<sup>th</sup> May 2020, organized by Shri Krishnaswamy College for Women, Chennai
10. Attended Webinar on “Future Effective Learning Techniques” on 21<sup>st</sup> May 2020, organized by Sinhgad Institute of Technology, Lonavala, Pune.
11. Attended Webinar on “Carrier Oriented Teaching Learning” on 22<sup>nd</sup> May 2020, organized by Sinhgad Institute of Technology, Lonavala, Pune.
12. Attended Four days Webinar series on “Research, Technology Trends in Digital Future and Media Responsibility during Pandemic” on 17<sup>th</sup> - 24<sup>th</sup> May 2020, organized by Dr. Vithalrao Vikhe Patil College of Engineering, Ahmednagar.
13. Attended Two days Webinar series on “Recent Trends in Microwave Engineering and Internet of Things” held on 06<sup>th</sup> – 7<sup>th</sup> June 2020, organized by D. J. Sanghvi College of Engineering, Mumbai.
14. Attended online Webinar on “Microwave Remote Sensing” on 24<sup>th</sup> June 2020, organized by International Centre for Radio Science, Jodhpur.
15. Attended online International Webinar on “Photonics Crystal Fiber and its Application” on 29<sup>th</sup> June 2020, organized by EXTC, ELX and Optiwave Canada, Terna Engineering College, Nerul.

### **Research and Scholarly Contributions:**

- **Ph.D. Research:** Design and Development of Compact Patch Antenna for Ultra-Wideband Application with Tunable Notch

- **M.E. Research:** Adaptive Nonseparable Wavelet Transform via Lifting and Its Application to Content-Based Image Retrieval.

**Funding Received: 20000/-**

Name of Funding Organization: University of Mumbai (Minor Research)

Amount Awarded: 20000/-

Period of Grant Award: 12 Months (2018-19)

Title of Project: Design and Simulation of Ultra-wideband (UWB) antenna using slotted meandering line and reducing the conducting area approach.

Role on Project: Co-Principal Investigator

**Software Tools:**

1. High-Frequency Structure Simulator (HFSS)
2. MATLAB
3. Python
4. Scilab

**Professional Association:**

- Institute of Electrical and Electronics Engineers (IEEE)-Member
- Indian Society of Technical Education (ISTE) - Life Member

**Experience:**

- **14.3 years**, the University of Mumbai Approved Teaching Experience at Terna Engineering College, Nerul Navi Mumbai  
05<sup>th</sup> Jan 2009 – 31<sup>st</sup> July 2012: Lecturer  
(Approved by University of Mumbai) CONCOL/SA/4750/2010 Dt.Sept.06, 2010,  
1<sup>st</sup> Aug 2012- 30<sup>th</sup> Sept 2014: Assistance Professor (Grade Pay 6000/-)  
1<sup>st</sup> Oct 2014- 31<sup>st</sup> July 2021: Assistance Professor (Grade Pay 7000/-)  
1<sup>st</sup> August 2021- till date: Associate Professor



**Responsibilities Handled:**

- Coordinator of physiological Counselor since 2017.
- Member Timetable from A. Y. 2017-till date
- Member PhD admission committee since 2021
- Member Anti-Ragging committee since 2015.
- Coordinator control system workshop conducted by MHRD (IITKGP) 02 Dec to 12 Dec 2014.
- Teaching Assistance “Analog Electronics” Workshop Conducted by IITKP in 2016.
- ATAL FDP Co-coordinator “Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) dated 13-17 December 2021.
- Coordinator Avalon-2013 National Level Technical Fest- 2013.
- Publicity Committee (Equinox-2016) National Level Conference, TEC, Nerul
- Committee Member Various STTP in TEC, Nerul
- University, SE (EXTC) Online Exam Co-Ordinator AY-2020.
- University, SE (EXTC) Online Exam Co-Ordinator AY-2021.
- Worked as a senior supervisor VIII-Sem. University Exam (FH-2022)
- Time-table coordinator department of EXTC AY 2017 to till date.
- Worked as Feedback Coordinator 2013-2019.
- Simulation Lab in charge since 2014.
- Worked as Co-Academic Program Coordinator A.Y. 2013.
- Worked as Exam Coordinator A. Y. 2014-2015.
- Worked in NBA Accreditation committee.
- Work as Mentor In charge Since 2017.

**Talks/Guest Lectures Delivered:**

1. Invited Lecture on “8051- Microcontroller” at G.V. Acharya Polytechnic Shelu, Karjat dated 02 Sept. 2016.
2. Conducted 02 days workshop on “Basics of Patch Antenna Design and Testing” at PVPP’s College of Engineering, Mumbai from 21<sup>st</sup> -26<sup>th</sup> Feb 2017.
3. Guest Lecture on “Microcontroller and Application” Department of Electronics and Telecommunication and Computer Engineering at G.V. Acharya Polytechnic Shelu, Karjat dated 07 Aug. 2018

4. Invited Lecture on “Antenna” Department of Electronics and Telecommunication and Computer at G.V. Acharya Polytechnic Shelu, Karjat dated 08 Feb. 2020.

**SESSION CHAIR/JUDGE:**

1. Judge Avalon-2016 National Level Technical Fest- 2016, TEC, Nerul
2. Judge Technical paper presentation, Avalon-2019 National Level Technical Fest- 2019, TEC, Nerul

Declaration

I hereby declare that the foregoing information are correct and complete to the best of my knowledge.

Dr. Trimukhe Mahadu Annarao

Place: Navi Mumbai