

Dr Padmesh Tripathi

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SUMMARY

- **Current Position** : Dean (Examinations) and Associate Professor of Mathematics.
- **Teaching Experience**: 20+ years at graduate/undergraduate level.
- **Ph.D. in Mathematics**: Sharda University, Greater Noida, India, May-2018.
Topic: Recent Advances in Inverse Problems with Applications to Signal De-Noising.
- **M.A in Mathematics**: University of Allahabad, Prayagraj, India, 1990.
- **Additional Qualification** : MBA from Punjab Technical University, Jalandhar, 2010.
- **Certifications** : ‘Data Analytics with Python’ from IIT Roorkhee, (NPTEL) – 2021.
‘Operations Research’ from IIT Madras, Chennai (NPTEL) - 2020.
‘Introduction to R software’ from IIT Kanpur, (NPTEL) – 2020.
‘Data Science for Engineers’ from IIT Madras, Chennai, (NPTEL) – 2020
‘Calculus of One Real Variable’ from IIT Kanpur (NPTEL) – 2019.
- **Publications**: 12 papers published (Five Scopus indexed), one book chapter (Taylor & Francis, USA).
- **Member, Editorial Board** : American Journal of Applied Mathematics, SPG, New York, USA.
- **Reviewer** : Journal of Mathematics and Statistics, Dubai, UAE.
- **Achievements**:
 - Awarded with “**Best Academician of 2020**” by SEMS Welfare Foundation, Noida, India.
 - Received grants from **ICIAM (Canada)** to present paper in an int. conf. at GNDU, Amritsar (2018).
 - Received grants from **INRIA, Sophia-Antipolis, France** to participate in a workshop (2018).
 - Received grants from **Univ. of California at Los Angeles, USA** to participate in a workshop (2017).
 - Received grants from **CIMPA (UNESCO), France** to participate in a research school in Iraq (2014).
 - Received grants from Newton Institute, **Cambridge Univ., U.K.** to participate in workshop (2013).
 - Received grants from **Univ. of Eastern Finland, Finland** to participate in summer school (2012).
 - Received grants from Newton Institute, **Cambridge Univ., U.K.** to participate in workshop (2011).
 - Token of appreciation from **SEMS** (Society for Engineering, Management and Science, Noida, India) for organizing an international conference at Satna, MP, India (2018).

- Received grant from **Defense Research and Development Organization**, India for organizing a national seminar on “**Operations Research and its Applications to Engineering and Management**” at ITS Engineering College, Greater Noida, India (2010).
- Best teacher award at ITS Engineering College, Greater Noida, India (2009-10).

EMPLOYMENT HISTORY

(20+ years)

- Associate Professor of Mathematics** IIMT College of Engineering **Oct 2016 - Present.**

 Delivery of lectures and mentoring, preparation of assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets. Involvement in research activities. Controller of Examinations. Academic Co-ordinator of Mathematics Department, Member IQAC.
- Assistant Professor of Mathematics** JRE Group of Institutions **Aug 2013- May 2016.**

 Delivery of lectures and mentoring, preparation of PPTs, assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets and maintaining the grades of students, uploading of course material online, involvement in research activities.
- Assistant Professor of Mathematics** ITS Engineering College **Sept 2008- May 2013.**

 Delivery of lectures and mentoring, assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets.
- Assistant Professor of Mathematics** IIMT College of Engineering **Aug 2007- Aug 2008.**

 Delivery of lectures and mentoring, assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets.
- Senior Lecturer of Mathematics** Noida Institute of Engg & Technology **Aug 2006 - July 2007.**

 Delivery of lectures and mentoring, assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets.
- Senior Lecturer of Mathematics** Vindhya Institute of Tech. & Science **Aug 2002 -Aug2006.**

 Delivery of lectures and mentoring, assignments, tutorial sheets, setting of question papers, evaluation of assignments, answer sheets. Looking after entire exam system of university at institute, Warden, boys hostel.
- Project Assistant** R.D. University, Jabalpur **Sept 2000 - Aug 2002.**

 All the communications between DST and university regarding the project and lecture delivery.

QUALIFICATIONS

- **Sharda University, Greater Noida** Ph.D.(Mathematics) **May-2018**

Total variation de-noising has been used in de-noising signals of Raman spectra and EEG. In total variation de-noising, the majorization-minimization algorithm, min-max property of optimization and non-convex regularizers are used. The performance of methods is evaluated by calculating the signal-to-noise ratio (SNR) and root mean square error (RMSE).

- **University of Allahabad, India** M.A. (Mathematics) **1990**
- **University of Allahabad, India** B.A. (Mathematics) **1986**

Punjab Technical University, Jalandhar MBA 2010

CERTIFICATIONS: (i) ‘Data Analytics with Python’ from IIT Roorkkee, (NPTEL) – 2021.

(ii) ‘Operations Research: An Introduction’ from IIT Madras, Chennai, (NPTEL) - 2020.

(iii) ‘Introduction to R software’ from IIT Kanpur, Chennai, (NPTEL) – 2020

(iv) ‘Data Science for Engineers’ from IIT Madras, Chennai, (NPTEL) – 2020

(v) ‘Calculus of One Real Variable’ from IIT Kanpur, (NPTEL) – 2019.

IT SKILLS:

- (i) R Software (Basic)
- (ii) Python (Basic)

SUBJECTS TAUGHT

Quantitative Techniques/Operations Research, Business Statistics, Calculus, Applied Mathematics, Complex Analysis, Numerical Analysis/Techniques, Engineering Mathematics, Linear Algebra, Discrete Structures, Statistical Techniques, Topology, etc.

PUBLICATIONS

1. Nafees Siddiqui, Lokesh Chaudhary, **Padmesh Tripathi**, Nitendra Kumar, Santosh Kumar (2022) “A comparative analysis of US and Indian laws against phishing attacks”, *Materials Today: Proceedings*, doi.org/10.1016/j.matpr.2021.08.256 (Elsevier)
2. **Padmesh Tripathi** (2020). “Electroencephalogram Signal Quality Enhancement by Total Variation Denoising Using Non-convex Regulariser”, *Int. J. Biomedical Engineering and Technology*, 33(2), 134-145. DOI: 10.1504/IJBET.2020.107709
3. **Padmesh Tripathi**, Yogesh Kumar, Vishwa Nath Jha (2020). “Artefact Removal from EEG Signal Using Total Variation De-noising”, *Int. J. of Innovative Technology and Exploring Engineering*, 9(2), 2357-2361. DOI: 10.35940/ijitee.E2703.039520
4. Yogesh Kumar, **Padmesh Tripathi** (2019). “Some properties of gR_1 and pairwise gR_1 Spaces”, *Journal of Emerging Technologies and Innovative Research*, 6(6), 516-518.
5. **Padmesh Tripathi**, Yogesh Kumar (2018). “Inverse Problems and Signal De-noising”, *International Journal of Research in Electronics and Computer Engineering*, 6(2), 2087-2089.
6. Yogesh Kumar, **Padmesh Tripathi** (2017). “Some Properties of P_g and Pairwise P_g - Spaces” *Int. J. Research in Computer Science Engineering and Technology*, 3(8), 611-613.
7. **Padmesh Tripathi**, A.H. Siddiqi (2017). “De-noising EEG signal using iterative clipping algorithm”, *Biosciences and Biotechnology Research Asia*, 14(1), 497- 502. DOI : <http://dx.doi.org/10.13005/bbra/2470>
8. **Padmesh Tripathi**, A.H. Siddiqi (2016). “Denoising Raman spectra using a non-Convex regularizer in Total Variation”, *Indian Journal of Science and Technology*, 9(48), 1-5. DOI: 10.17485/ijst/2016/v9i48/99920
9. Nitendra Kumar, **Padmesh Tripathi**, Khursheed Alam (2016). “Non-negative Matrix Factorization-Based EEG Signal Classification”, *Indian Journal of Industrial and Applied Mathematics* 7(2), 212-219. DOI:10.5958/1945-919X.2016.00019.0
10. **Padmesh Tripathi**, A.H. Siddiqi (2016). “Solution of Inverse Problem for de-noising Raman Spectral Data with Total variation using Majorization-Minimization Algorithm” *Int. J. Computing Science and Mathematics*, 7(3), 274-282. <https://doi.org/10.1504/IJCSM.2016.077855>
11. **Padmesh Tripathi**, Nitendra Kumar (2013). “Inverse Problems: Some Aspects”, *Handbook of Engineering and Applied Science (SEMS)*, 1, 108-112.
12. Deepak Kumar, **Padmesh Tripathi** and Anil Kumar Singh (2010) “On Generalized ϕ -Derivatives of Prime Rings” *International J. of Sci. & Engg. Applications*, 4 (III), 277-283.

Book Chapter

Padmesh Tripathi, Nitendra Kumar and A.H. Siddiqi. (2020) “De-noising Raman spectra using total variation de-noising with iterative clipping algorithm” in Computational Science and its Applications, Taylor and Francis Group, CRC Press, USA, pp 225-231.

<https://doi.org/10.1201/9780429288739>

BOOKS

Edited Engineering Mathematics-II

Nano Edge Publishers

2016

SEMINARS/CONFERENCES ORGANIZED

1. Webinar on “Applications of Mathematics in Engineering” at IIMT College of Engineering, Greater Noida on May 27, 2020.
2. Two day international conference on “Recent Advances in Engineering, Sciences and Management” at VITS Engineering College, Satna, India during August 11-12, 2017.
3. One day national seminar on “Operations research and Its Applications to Engineering and Management” at ITS Engineering College, Greater Noida on May 08, 2010.

SHORT TERM COURSES ATTENDED

1. Short term online course on “**Operational Research: An Introduction**” organized by NITTTR, Chandigarh, during May 25-29, 2020.
2. Short term course on “Evolution Equations: Theory and Applications” held at **IIT Madras, Chennai, India** during August 12-17, 2019.
3. Instructional School on “Numerical and Theoretical aspects of Inverse Problems” organized by **TIFR CAM, Bangalore, India** during June 16-28, 2014.
4. ISTE approved short term training programme on “Numerical Methods and Their Applications in Science and Engg.” held at **S. A. T. I, Vidisha, M.P., India** during June 19-24, 2006.
5. QIP short term course on “Foundations of Computer Science” held at **IIT Guwahati, India** during Nov. 16-20, 2004.
6. Instructional school on “Linear Algebra” organized by Indian Academy of Sciences, Bangalore in association with **Harish Chandra Research Institute (Department of Atomic Energy), Allahabad, India** during Dec. 3-15, 2001.

SUMMER SCHOOLS/CONFERENCES/WORKSHOPS PARTICIPATED

I. INTERNATIONAL LEVEL

1. Participated in online workshop on “PDE and Inverse Problem Methods in Machine Learning” held at IPAM, University of California, Los Angeles, USA during April 20-24, 2020.
2. Spring school and workshop on “Inverse Problems and Approximation Techniques in Planetary Sciences” during May 16-18, 2018 held at **INRIA, Sophia-Antipolis, France.**
3. Tutorials workshop during March 20-24, 2017 held at **IPAM, University of California at Los Angeles, USA.**
4. Workshop on “Polynomial Optimization” during July 15-19, 2013 held at **Isaac Newton Institute of Mathematical Sciences, Cambridge University, U. K.**
5. Summer School on “Computational Methods for Inverse problems in Imaging” during June 11-15, 2012 held at **University of Eastern Finland, Kuopio, Finland.**
6. Workshop on “Inverse problems in Science and Engineering” during Dec. 12-16, 2011 held at **Isaac Newton Institute for Mathematical Sciences, Cambridge University, U. K.**

II. NATIONAL LEVEL

1. Participated in three days Online National Workshop on “Ancient Indian Mathematics” Organized by Central University of Punjab, Bathinda and The Mathematics Consortium held during March 14-16, 2022.
2. Participated in Faculty Development Program on “Data Science – ML&AI” conducted by E & ICT Academy, IIT Kanpur during March 7-11, 2022.
3. Participated in E-FDP on “Unleashing Research Potential: Global Trends and Practices NOIDA ” Organised by Office of International Relations, Galgotias University, Greater Noida, Uttar Pradesh held from March 7-11, 2022.
4. Participated in One Week Online Workshop on “Optimization Techniques for Engineering Applications (OTEA2022)” organized by Department of Electrical Engineering, Rajkiya Engineering College, Sonbhadra, UP during February 28 -March 04, 2022.
5. Participated in online faculty development program on “Mathematics in Real, Applied and & Computational Learning Environment – MIRACLE 2022” held at Department of Mathematics, Bon Secours College for Women, Thanjavur during February 20-24, 2022
6. Participated in the program “Workshop on Inverse Problem and Related Topics (Online)” held at ICTS, TIFR, Bengaluru during October 25–29, 2021.
7. Participated in workshop “Data Analytics and Optimization” held at GD Goenka University, Gurugram, India during June 03-07, 2019.

8. Presented paper on “Artifacts Removal from Electroencephalogram (EEG) Signal Using Combination of Wavelet and Total Variation” in the Int Conf organized at GNDU, Amritsar, India during Feb 02-04, 2018.
9. Participated in workshop “Advanced Mathematical and Computational Biology” AMCB-2016 held at IIT Ropar, Punjab, India during May 21-22, 2016.
10. Presented paper on “Noise Removal in Electroencephalography Using Non-convex Regularizer” in an international conference organized by Sharda University, Greater Noida, India during Jan 29-31, 2016.
11. Participated in “The 2015 NNMCB National Meeting” held at IISER, Pune, India during Dec. 27-30, 2015.
12. Participated in the workshop on “Learning Sparse Representations for Signal Processing” held at IISc, Bangalore, India during Feb 20-22, 2015.
13. Participated in a workshop on “Autograph Software” held at IIT, Delhi, India on December 4, 2014.
14. Participated in the workshop on “Application of Computer Software in Mathematical Modeling” organized by CSTT at Non-Linear Dynamics Lab, GGSIP University, Delhi, India during May 16-17, 2014.
15. Presented a paper in International conference of Engineering & Management Sciences on “Inverse Problems: Some Aspects” held at RIET, Greater Noida, India during Dec 21-22, 2013.
16. Presented a paper on “Inverse Problems and modeling of Tomography” in a national conference on “Engineering and Science” held at Jabalpur Engg. College, Jabalpur, MP, India during March 22-23, 2013.
17. Participated in the Int. Conf. on “Emerging Mathematical Methods, Models and Algorithms for Science and Technology” held at Gautam Buddha University, Greater Noida, India during December 15-16, 2012.
18. Participated in “Training Program of MATLAB and MATHEMATICA” held at G.B. University, Greater Noida, India on Dec 14, 2012.
19. Participated in 27th Annual conference of Ramanujan Mathematical Society organized by Shiv Nadar University, Greater Noida, India during Oct 20-22, 2012.
20. Presented a paper on “Inverse Problems and Regularization Methods” in a National Conference on Advances in Mathematical Science held at Motilal Nehru National Institute of Technology, Allahabad, UP, India during October 5-7, 2012.
21. Presented a paper on “Inverse problems and applications to engineering and science” in the Int. Conference of International Association of Physical Sciences, held at University of Petroleum and Energy Studies, Dehradun, UK, India during June 14-16, 2011.
22. Workshop on “Advanced Industrial Engineering” held at ITS Engineering College, greater Noida held at ITS Engineering College, greater Noida, India on May 14, 2011.
23. Workshop on “Wavelets and its Applications in Signal Processing” held at IIIT, Noida, India on April 20, 2011.
24. Satellite Conference of ICM-2010 on “Mathematics in Science and Technology” held at India Habitat Centre and India Islamic Cultural Centre, New Delhi, India during August 15-17, 2010.

25. Workshop on “Application of Wavelets in Inverse Problems” held at India Islamic Cultural Centre, New Delhi, India on August 14, 2010.
26. Presented a paper on ”On Generalized ϕ -Derivatives of Prime Rings” in the International Conference of International Association of Physical Sciences held at University of Allahabad, Allahabad, UP, India during Feb. 20-22, 2010.
27. National Conference of Purvanchal Academy of Sciences held at T.D. College, Jaunpur, U. P., , India during Feb.19-21, 2009.
28. National Seminar on “Analysis and Approximation” held at R. D. University Jabalpur, MP, India during 12-13 May, 2005.
29. International Conference on “Algebraic and Geometric Topology” organized by Deptt. of Mathematics, University of Delhi, India during January 01-04, 2002.
30. Conference on “Recent Trends in Computational Mathematics” organized by Department. of Mathematics and Computer Science, R.D. University, Jabalpur, MP, India during Dec.12-14, 2001.
31. 66th Annual Conference of Indian Mathematical Society held at Aurangabad, Maharashtra, India during Dec. 19-22, 2000.

MEMBERSHIP OF PROFESSIONAL BODIES

1. Society of Industrial and Applied Mathematics (SIAM), Philadelphia,USA (**Membership No. 001071324**)
2. Indian Society of Industrial and Applied Mathematics (ISIAM), India(**Life Membership No. P-154**)
3. Science and Engineering Institute (SCIEI), Los Angeles, CA, USA (**Life Membership No. 20191201001**)
4. International Association of Engineers (IAENG), UK (**Life Membership No. 102944**)
5. Ramanujan Mathematical Society, India.(**Life Membership No. 838**)
6. EURO working group on continuous optimization (EUROPT), Italy.
7. Purvanchal Academy of Sciences, U.P., India.
8. Society for Foundations of Computational Mathematics, USA.

(Dr Padmesh Tripathi)

Date:04 .05.2022

Place: Greater Noida, India.