

FACULTY PROFILE



Name: Dr. Shikha Bansal
Designation: Assistant Professor
E-Mail: shikhab@srmist.edu.in

Professional Qualification:

- Ph.D., M.Sc(Maths)

Publications (Journals & Conferences):

- **“Optimization Model for Waste Water Treatment Plant”** in **IEEE Xplore**, 2023 DOI: 10.1109/ICACITE57410.2023.10182482
- **“Assessment of the Reliability Performance of Hydro-Electric Power Station”** in **IEEE Xplore**, 2023 DOI: 10.1109/ICACITE57410.2023.10183056
- **“Performance of Reliability Factors in Steam Turbine Generator Power Plant Using Boolean Function Technique and Neural Network Approach”** **IEEE Xplore**, 2023 DOI: 10.1109/ICAECIS58353.2023.10170451
- **“Determination of the Concentrations of the Reactants of First Order Consecutive Chemical Reaction Using Anuj Transform”** *Eur. Chem. Bull.* Volume 7, Issue-7, Pages 2528-2534, 2023
- **“Study of Reliability, MTTF and Cost of a Methanol Production Plant”** *International Journal of Advances in Science Engineering and Technology*, Volume-11, Issue-1, Jan.-2023.

- **“Application Of Anuj Transform For The Solution Of Bacteria Growth Model”**, GIS science journal, Volume 9, issue 6, Page no: 1465-1472, June 2022
- **“Performance Modeling and Availability Analysis of Screw Manufacturing Plant”** Materials Today: Proceedings, Elsevier, Volume 57, Part 5, 2022, Pages 1985-1988 ,2022
- **“A New Novel Integral Transform "Anuj Transform" with Application”** Design engineering, issue 9,12741 – 12751,2021
- **“Mathematical Modeling and Availability Analysis of Leaf Spring Manufacturing plant”** Pertanika Journal of Science & Technology (JST) ,29 (2): 1041 - 1051, 2021
- **“FIFO & LIFO In Green Supply Chain Inventory Model Of Hazardous Substance Components Industry With Storage Using Simulated annealing”**, Advances in Mathematics: Scientific Journal ,9 (7), 5127–5132,2020
- **“ A SRGM Using Time Dependent Delay Effect In Fault Detection And Removal Phenomenon ”** international Journal Of Innovative Technology And Exploring Engineering (IJITEE) vol 8, 7C2 192-196, 2019
- **“Reliability Analysis Of Screw Manufacturing Plant Using Orthogonal Matrix Method”** Pertanika Journal of Science & Technology (JST) ,26 (4): 1789 - 1800, 2018
- **“Availability Analysis Of A Redundant Repairable System Under preemptive-Resume Repair Discipline”** International Journal of Mathematics & its Application (IJMAA), Vol. 6, issue (1-D), 665-671, 2018.
- **“Cost Analysis of Solar Thermal Electric Power Plant”** International journal of advanced technology in engineering and science, Vol. 3, issue 10, 2015.
- **“Reliability Investigation Of Utensils Processing Unit”** Elixir International journal, 74, 26886-26889,2014
- **“Evaluation of Reliability Factors Using B.F Technique in Milk Powder Manufacturing Plant”**, International Journal of research and Review in Applied Science, Vol. 4, 2010.
- **“Reliability Characteristic of Cold-Standby Redundant System”** International Journal of research and Review in Applied Science, Vol. 3, 2010.
- **“Reliability Analysis of a Standby Redundant Complex System with Changing Environment under Preemptive-Repeat Repair Discipline”**, Bulletin of Pure and Applied Sciences. India, Vol 28E, Page No..227-236, 2009.
- **“Reliability Analysis of a Standby Redundant Complex System with Changing Environment under Head-Of-Line Repair Discipline”**, Bulletin of Pure and Applied Sciences. India, Vol. 28E, Page No. 165-173, 2009.

Workshops/Seminars/FDPs

- Participated and Completed 6-day FDP on the theme “**Advanced MATLAB Programming with Applications in Emerging Technologies**” Organized by the Department of Electronics and Communication from at SRM Institute of Science and Technology, NCR Campus, Modinagar, Ghaziabad, Uttar Pradesh ,in association with IEEE Student Branch, 12-17 June, 2023
- Participated and Completed 5-day FDP on the theme “**Recent Advancements in Science and Technology**” organized by Department of Basic Science at Alliance University, Anekal, Bengaluru, India , March 06 - 10, 2023
- Attended a Two day workshop on ‘**Latex**’, organized by Operational Research Society of India, Meerut Chapter and Vardhaman College , Bijnor, on 25-26 February 23
- Worked as a Member of Organizing Committee of FDP on the theme “**Role of Optimization in Computational Mathematics, Supply Chain Management & Engineering**” organized by the department of mathematics, SRMIST, Delhi-NCR campus modinagar, 23 May, 2022 to 28 May, 2022
- Participated and Completed 5-day FDP on the theme “**Advanced Security Analytics and Machine Learning**” by the Department of Computer Science and Engineering from 18 April, 2022 to 23 April, 2022 at SRM Institute of Science and Technology, NCR Campus, Modinagar, Ghaziabad, Uttar Pradesh (India)
- Participated in the international workshop on “**Numerical and Analytical Techniques in Engineering Problems (IWNATEP-2022)**” organized by the Department of Mathematics held on January 19 - 21, 2022 at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India
- Attended a one day national level seminar on “**Application of MATLAB Software in Engineering**” Under the Department of Science & Technology, Gujarat Council of Science & Technology (Govt. of Gujarat) organized by Applied Sciences and Humanities Department, Parul Polytechnic Institute, Faculty of Engineering & Technology, Parul University, 3rd September, 2021.
- Participated and Completed 5-day FDP on the theme “**Inculcating Universal Human Values in Technical Education**” organized by All India Council for Technical Education(AICTE) from 9 August, 2021 to 13 August, 2021
- Participated in FDP entitled “**Mathematics and its Applications in Science and Technology** ”, organized by the department of mathematics, SRMIST, Kattankulathur, 06-16 July 2020

- Worked as a Member of Organizing Committee in “**21th annual conference on Modeling, Optimization and Computing for Technological and sustainable development**” organized by the department of mathematics, SRMIST, Delhi-NCR campus modinagar, 26-28 april 2019
- Attended a Multi Disciplinary FDP entitled “**ERUDITIA**” in SRMIST, NCR Campus, Modinagar, Ghaziabad, Uttar Pradesh (India),12-23 june 2018
- Participated in the one day workshop on ‘**VEDIC MATHS**’, held in SRM University, Modinagar on 27 January 2017
- Participated in FDP entitled “**Research and Teaching methodologies for professional development**”, held in SRM University, Modinagar on 4-10 July 2016
- Participated in FDP entitled “**Innovative approaches in mathematical & statistical sciences**”, held in SRM University, Modinagar on 6-11 July 2015
- Worked as a Member of Organizing Committee in “**International conference on advance techniques & devices in mathematics & physical sciences**” 23-25 January 2015 organized by the department of mathematics & physics, SRM Univ, NCR campus modinagar
- Attended a Five days Short Term Course on **Applied Numerical Methods** conducted by IIT Roorkee , 21-25 Dec 09

Work Experience:

- Presently working at SRMIST as an Assistant Professor from August 2013 till date
- Lecturer of Mathematics in the Department of Applied Sciences and Humanities, Krishna Institute of Engineering & Technology, Ghaziabad From August 2008 to July 2010

Professional Memberships:

- Life Member of Indian Science Congress Association.
- Member of the International Association of Engineers (IAENG)