

DR. PAWAN KUMAR

Assistant Professor in Mathematics

Department of Mathematics

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ACADEMIC QUALIFICATION:

- ♦ Ph. D in Mathematics from N.I.T. Kurukshetra, Kurukshetra in 2013.
Title of Ph. D. Research: Fuzzy Availability Analysis of Some Industrial Systems
- ♦ M.Sc. in Mathematics in 2005, from Kurukshetra University, Kurukshetra, Haryana with first division.
- ♦ B.Sc. in 2003, from Kurukshetra University, Kurukshetra, Haryana with first division

AREA OF SPECIALIZATION: Fuzzy Reliability, Fuzzy Availability, Optimization.

SUBJECT TAUGHT:

Ph.D. Level: Research Methodology.

Postgraduate Level: Mathematical Modeling, Operations Research, Differential Equations, Mathematical Statistics, Discrete Mathematics.

RESEARCH GUIDANCE:

Ph.D. Students: 02 (In Progress)

M.Sc. Students Dissertation: 14 (Completed)

RESEARCH PAPERS PUBLISHED IN JOURNALS:

1. Kuldeep Kumar, Jai Singh and **Pawan Kumar**, "Fuzzy Reliability and Fuzzy Availability of the serial process in Butter- Oil Processing Plant" Journal of Mathematics and Statistics (ISSN 1549-3644), Science Publication USA 5(1): 65- 71 (2009)
2. Kuldeep Kumar, Jai Singh and **Pawan Kumar**, "Fuzzy Reliability and Fuzzy Availability of the Dyeing and Painting Textile Mill", International Journal of Pure and Applied Matematika Sciences (PAMS) (ISSN 0379-3168) Vol. LXX No. 1-2, September: pp. 35-47 (2009).

3. Kuldeep Kumar and **Pawan Kumar**, “Fuzzy Availability of the Feeding System in the Sugar Industry” International Journal of Applied Engineering Research (ISSN 0973-4562) Vol. 5(5): 879-894, (2010).
4. Kuldeep Kumar and **Pawan Kumar**, “Mathematical Modeling and Analysis of Stainless Steel Utensil Manufacturing Unit Using Fuzzy Reliability” International Journal of Engineering Science & Technology (ISSN 0975-5462) Vol. 2(6) 2370-2376 (2010).
5. Kuldeep Kumar and **Pawan Kumar**, “Fuzzy availability modeling and analysis of biscuit manufacturing plant: a case study”, International Journal of Systems Assurance Engineering and Management (ISSN 0975-6809) (**Springer**), 2(3):193–204 (2011).
6. **Pawan Kumar**, “Performance Analysis of Biscuit Manufacturing Plant in Steady State Using Fuzzy Availability” International Journal of Computers & Technology (IJCT) (ISSN 2277-3061) Vol. 11(4) 2422-2439 (2013)
7. **Pawan Kumar** and Atulya Nagar, “Mathematical Modeling and Fuzzy Availability Analysis of Stainless Steel Utensil Manufacturing Unit in Steady State: A Case Study” International Journal of Systems Assurance Engineering and Management (ISSN 0975-6809) (**Springer**), 6(3):304–318 (2015).
8. **Pawan Kumar** and Chanchal Dudeja, “Shadowed type 2 fuzzy-based Markov model to predict shortest path with optimized waiting time” Soft Computing (ISSN 1433-7479), 25, 995–1005(2021) (**SCI, IF-3.050**).
9. **Pawan Kumar**, Dhanpal Singh, Sukhvinder Singh Deora and Narendra Kumar Rawal, “Fuzzy Availability Analysis of Washing System in Paper Industry by Markov Modelling: A Case Study” International Journal of Agricultural and Statistical Sciences (ISSN 0973-1903),17(1):399-409(2021). (**ESCI, Scopus**)
(DocID: <https://connectjournals.com/03899.2021.17.399>)

RESEARCH PAPERS PUBLISHED IN CONFERENCES:

1. **Pawan Kumar** et. al, “Markov Based Mathematical Modeling & Availability Analysis of Filler System of a Brewery Plant ” published in Proceedings of International Conference on Emerging Technologies organized by N.C.College of Engineering Israna (Panipat). ISBN No. 978-93-83842-56-8 (2014) pp. 261-269.
2. **Pawan Kumar** and Vijay Kumar, “On Ideal Convergence on Fuzzy Neighbourhood Space” published in Proceeding of International Conference on Intelligent Systems: Approaches, Technology & Networks (2019) organized by Panipat Institute of Engineering & Technology Samalkha, Panipat on 29th March 2019. ISBN No. 978-93-83861-29-4, pp. 216-220.
3. Sunita Kumawat, Chanchal Dudeja and **Pawan Kumar**, “An Extensive Review of Shortest Path Problem Solving Algorithms” published in Proceedings of 5th International Conference on Intelligent Computing and Control Systems (ICICCS) by IEEE from 6-8 May 2021, Electronic ISBN: 978-1-6654-1272-8 (2021), pp. 176-184. (DOI: 10.1109/ICICCS51141.2021.9432275)

ADMINISTRATIVE ASSIGNMENTS:

Member DRC, Department of Mathematics, CUH
Member Admission Committee, Department of Mathematics, CUH
Member of OBC Cell, Central University of Haryana since 24.12.2020
Member of Central Students Counselling Cell, CUH since 24.12.2020
Convener, Liaising with Local Schools/Colleges Committee, National Science Day 2021, CUH.
Member of Various RAC (Research Advisory Committee).

DETAILS OF SEMINAR/WORKSHOP/SHORT-TERM COURSE ATTENDED:

1. Attended a Staff Development Programme on “Theory and Practical Applications of FEM” from 14-25 June 2010 organized by N.C.College of Engineering, Israna (Panipat).
2. Attended a short-term course on “Nature Inspired Optimization Algorithms: Recent Trends, Theory and Applications” from March 25-28, 2011 organized by IIT, Roorkee.
3. Attended a short-term course on “Optimization Using MATLAB” from July 17-21, 2017 organized by NITTTR, CHANDIGARH.
4. Participated in a two weeks faculty development program on “Application of Digital Tools and Technology in Teaching and Learning” from June 16-29, 2020 organized by Indira Gandhi National Tribal University, Amarkantak (M.P.). (**Online Mode**)
5. Participated in a one-week international faculty development program on “Recent Advances in Mathematics & Statistics” from August 03-08, 2020 organized by GITAM, Visakhapatnam, Andhra Pradesh. (**Online Mode**)
6. Participated in a five days faculty development program on “Research Methodology and Scientific Tools” from September 09-13, 2020 organized by Government College Satnali, Mahendergarh, Haryana. (**Online Mode**)
7. Participated in One-Week Online National Workshop on Applications of Mathematical and Statistical Tools organized by Department of Mathematics, Department of Statistics and Department of Education under PMMMNMTT from 20-24, March 2021(**Online Mode**).
8. Attended one day National Webinar on “Post-Independence Scenario of Renewable Energy Resources in India” organized by the Department of Physics and Astrophysics, School of Basic Sciences, Central University of Haryana, Mahendergarh as part of the “*Azadi ka Amrit Mahotsav*” celebration on June 2, 2021.(**Online Mode**)
9. Attended a Webinar on "**Ecosystem Restoration**" on the occasion of **World Environment Day** in association with *Youth Red Cross Society, National Service Scheme and Indian Water Resources Society (IIT Roorkee)* organized by the *School of Engineering & Technology and Department of Environmental Studies, Central University of Haryana* on June 05, 2021. (**Online Mode**)
10. Participated in the **National workshop on “RTI ACT: SUO MOTO DISCLOSURES AND BEST PRACTICES”**, organized by the RTI Cell of Central University of Haryana, in collaboration with Haryana Institute of Public Administration, Gurugram held on **17th July 2021. (Online Mode)**

11. Attended one day online Webinar on “Thought Laboratory” organized by the Department of Mathematics, *School of Engineering & Technology*, Central University of Haryana, Mahendergarh held on July 20, 2021. (**Online Mode**)

DETAILS OF FACULTY INDUCTION PROGRAM/ORIENTATION PROGRAM/REFRESHER COURSES ATTENDED:

Successfully completed a 4-Week **Online Induction Training/Orientation Programme** for “Faculty in Universities/Colleges/Institutes of Higher Education” from April 16 - May 15, 2021 organized by Teaching Learning Centre, Ramanujan College University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT).

INVITED TALK/EXPERT TALK:

Delivered an expert talk on “Numerical Methods in Solving Linear System of Equations” in an International Conference on Emerging Technologies (ICET-2014) organized by N.C. College of Engineering, Israna (Panipat) from April 24th -26th, 2014.

DETAILS OF SEMINAR/WORKSHOP/SHORT-TERM COURSE ARRANGED:

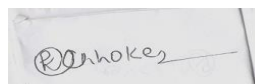
1. **Co-Convener** of International Conference on Intelligent Systems: Approaches, Technologies and Networks Sponsored by Indian Council of Social Science Research, MHRD, New Delhi held at Panipat Institute of Engineering & Technology Samalkha, Panipat on 29th March 2019.
2. **Co-Convener** in One-Week Online National Workshop on Applications of Mathematical and Statistical Tools organized by Department of Mathematics, Department of Statistics and Department of Education under PMMMNTT from 20-24, March 2021.

PROFESSIONAL MEMBERSHIP:

1. **Life Time Member of ISTE**
2. **Life Time Member of Journal of Mathematics and System Sciences.**
3. **Member Board of Reviewers, International Journal of Engineering, Iran.**

DECLARATION:

I solemnly declare that the information furnished by me is true and correct to the best of knowledge and belief.



(DR PAWAN KUMAR)