



**DESHBANDHU COLLEGE**  
**(UNIVERSITY OF DELHI)**  
**KALKAJI, NEW DELHI - 110019**  
**Faculty Details Proforma for College Website**

Title	Dr	First Name	<b>Pankaj</b>	Last Name	<b>Kumar</b>		
Designation	Assistant Professor						
Address	Department of Mathematics, Deshbandhu College (University of Delhi), Kalkaji, New Delhi-110019						
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Residence							
Mobile	+91 9759632788						
Email	<a href="mailto:pkumar1@db.du.ac.in">pkumar1@db.du.ac.in</a> and <a href="mailto:pankaj060791@gmail.com">pankaj060791@gmail.com</a>						
Web-Page							
<b>Educational Qualifications</b>							
Degree	Institution				Year		
Ph.D.	<b>IIT Roorkee, Roorkee</b>				<b>2021</b>		
PG	<b>IIT Roorkee, Roorkee</b>				<b>2012</b>		
UG	<b>CCS University Meerut</b>				<b>2010</b>		
<b>Career Profile</b>							
<ul style="list-style-type: none"> <li>Working as Assistant Professor in Deshbandhu College from 22-11-2021 to present.</li> <li>Worked as Assistant Professor at JBIT Dehradun from 23-07-2014 to 20-12-2015.</li> <li>Worked as Project Assistant IIT Roorkee, Roorkee from 01-02-2014 to 31-05-2014.</li> </ul>							
<b>Administrative Assignments</b>							
<b>Areas of Interest/Specialization</b>							
Calculus, Applied Mathematics, Operational Research, Queueing and Reliability Theory, Stochastic and Markov Processes.							
<b>Subjects Taught</b>							
<b>Calculus</b>							
<b>Research Guidance</b>							
NA							
<b>Publications Profile</b>							
<ol style="list-style-type: none"> <li>Research papers published in Refereed/Peer Reviewed Journals <ul style="list-style-type: none"> <li><b>P. Kumar, M. Jain (2020):</b> Reliability Analysis of a Multi-component Machining System with Service Interruption, Imperfect Coverage, and Reboot. <i>Reliability Engineering and System Safety</i>, 202, 106991, Elsevier (I.F.-6.188). (Q1).</li> </ul> </li> </ol>							

- M. Jain, **P. Kumar**, R. K. Meena (2020): Fuzzy Metrics and Cost Optimization of a Fault-Tolerant System with Vacationing and Unreliable Server. *Journal of Ambient Intelligence and Humanized Computing* 11, 5755-5770, Springer. <https://doi.org/10.1007/s12652-020-01951-x> (I.F.-7.104) (Q1).
  - M. Jain, **P. Kumar**, Sudeep Singh Sanga (2020): Fuzzy Markovian Modeling of Machining System with Imperfect Coverage, Spare Provisioning and Reboot. *Journal of Ambient Intelligence and Humanized Computing* 12, 7935-7947, Springer. <https://doi.org/10.1007/s12652-020-02523-9>. (I.F.-7.104) (Q1).
  - **P. Kumar**, M. Jain, R. K Meena (2021): Optimal control of fault tolerant machining system with reboot and recovery in fuzzy environment using harmony search algorithm. *ISA Transactions*, Elsevier. <https://doi.org/10.1016/j.isatra.2021.02.027> (IF-5.468) (Q1).
  - M. Jain, R.K. Meena, **P. Kumar** (2020): Maintainability of Redundant Machining System with Vacation, Imperfect recovery and reboot delay. *Arabian Journal for Science and Engineering* 45, 2145–2161, Springer. (I.F.-2.334) (Q2).
  - M. Jain, **P. Kumar** (2020): Availability Analysis of Machining System with Common Cause Failure, Inspection and Imperfect Repair. *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences* 91, 451-460, Springer. <https://doi.org/10.1007/s40010-020-00682-0>, (I.F.-1.544) (Q2).
  - R. Sethi, R. K. Meena, M. Jain, **P. Kumar**, D. Garg (2021): Reliability and Performance Analysis of Markovian Fault Tolerant System with Vacation. *Global Journal of Modeling and Intelligent Computing*, 01:30-49.
2. *Research papers published in Refereed/Peer Reviewed Conferences*
- M. Jain, **P. Kumar** (2018): Availability Prediction of Repairable Fault-Tolerant System with Imperfect Coverage, Reboot, and Common Cause Failure. In: Deep K, Jain M, Salhi S (eds) Performance prediction and analytics of fuzzy, reliability and queuing models. Asset analytics (performance and safety management). Springer, Singapore, pp 93–103. [https://doi.org/10.1007/978-981-13-0857-4\\_6](https://doi.org/10.1007/978-981-13-0857-4_6)
  - R. K. Meena, **P. Kumar** (2021): Performance Analysis of Markov Retrial Queueing Model under Admission Control F-Policy. In: Rakhee Kulshrestha, Chandra Shekhar, Madhu Jain, Srinivas R. Chakravarthy (eds) Mathematical Modeling and Computation of Real-Time Problems (An Interdisciplinary Approach). Taylor & Francis, pp 65-78.

#### Conference Organization/ Presentations

- Attended an International Conference on “**Recent Trends in operations research and statistics**” organized by the Department of Mathematics, IIT Roorkee during 28-30 Dec., 2017 and presented a paper entitled with "**Availability Prediction of Repairable Fault-Tolerant System with Imperfect Coverage, Reboot, and Common Cause Failure**".
- Attended National Conference on “(MSSCID-2017)” organized by the Department of Mathematics, Manipal University Jaipur during 24-26 Nov., 2017 and presented a paper entitled "**Availability analysis of multi-state manufacturing system with common cause failure, inspection and imperfect repair**".
- **Optimization Techniques for Solving Industrial Problems (OTSIP)** organized by **Mathematical colloquium, Department of Mathematics IIT Roorkee**, on 15<sup>th</sup> October, 2016.

<ul style="list-style-type: none"> <li>• <b>Modelling Optimization and Simulation of Stochastic System (MOSSS)</b> organized by Mathematical colloquium, <b>Department of Mathematics IIT Roorkee</b>, on 20<sup>th</sup> November, 2016.</li> <li>• <b>Training Workshop on Reference Management Software Mendeley</b> organized by <b>MGCL, IIT Roorkee</b> on 20th January, 2017.</li> <li>• <b>Applied Stochastic Models and Optimization</b> organized by <b>Mathematical colloquium, Department of mathematics. IIT Roorkee</b> during 26-27 May, 2017.</li> <li>• <b>Workshop on Research Paper Writing</b> organized by <b>MGCL, IIT Roorkee</b> on 20th January, 2017.</li> <li>• Attended a GIAN Course on "<b>Advances in Reliability Engineering</b>" organized by Department of Industrial &amp; Production Engineering, <b>Dr B R Ambedkar National Institute of Technology Jalandhar, Jalandhar Punjab</b>, India. During July 31-August 4, 2018.</li> <li>• Participated in a workshop on '<b>International Workshop on Stochastic Simulation and Its Applications (WSSA 2019)</b>' organized by <b>Department of Mathematics, Birla Institute of Technology and Science Pilani, Pilani Campus, India</b> during 24-27 December, 2019.</li> </ul>
Research Projects (Major Grants/Research Collaboration)
NA
Awards and Distinctions
<ul style="list-style-type: none"> <li>• Qualified IIT JAM-2010.</li> <li>• Awarded MHRD scholarship during Ph.D.</li> <li>• GATE qualified in 2015.</li> <li>• CSIR-JRF qualified in June-2017.</li> <li>• UGC-NET qualified Dec-2017.</li> </ul>
Association With Professional Bodies
Other Activities

*Pankaj Kumar*

Signature of Faculty  
Member

- You are also requested to give your complete resume as a Word or PDF file to be attached as a link on your department page.