

FACULTY PROFILE



Name: Dr. Priyanka Agarwal

Designation: Assistant Professor

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Professional Qualification: M.Phil., Ph.D.

➤ M.Phil. dissertation on the topic-

“SOFTWARE RELIABILITY GROWTH MODELS: OPTIMIZATION ISSUES”.

➤ Ph.D. on the topic-

“STUDIES ON SOFTWARE QUALITY AND RELIABILITY GROWTH MODELS”

Publications (Journals & Conferences):

- i. Shamout, M.D., Chaubey, P.K., **Agarwal, P.**, Adwan, I.A., Sharma, A.K., Yadav, A.S. (17 March, 2023): Role of industrial automation in terms of providing predictive maintenance in the transportation and logistics sector
✦ IEEE International Interdisciplinary Humanitarian Conference for Sustainability (IHC-2022), pp. 1012-1016.
- ii. Chaubey, P.K., Yadav, A.S., Arora, T.K., Ahlawat, N., Purohit, P., Swami, A., **Agarwal, P.**, (July, 2022): Machine Learning and deep Learning Based Optimization Algorithms for COVID-19 Pharmaceutical Industry Supply Chain Management
✦ Journal of Xi'an Shiyu University, Natural Sciences Edition, Vol.65, No. 7, pp. 46-65, ISSN 1673-064X, DOI 10.17605/OSF.IO/RUQG7
- iii. Arora, T.K., Yadav, A.S., Chaubey, P.K., Ahlawat, N., Purohit, P., Swami, A., **Agarwal, P.**, (2022): Deep Learning Based Optimization Algorithms for COVID-19 Medicine Industry Supply Chain Management using Bacterial Foraging Optimization
✦ Journal of Xi'an Shiyu University, Natural Sciences Edition, Vol.65, No. 7, pp. 01-22, ISSN 1673-064X, DOI 10.17605/OSF.IO/74KQX
- iv. Yadav, A.S., Praveen, B.M., Ahlawat, N., **Agarwal, P.**, Chaudhary, P., Purohit, P. (2022): Mathematical Modeling of Corona virus vaccine supply chain Inventory System with Distribution center using Machine learning and Genetic Algorithm.

- ✦ **International Journal of Mechanical engineering** *Vol. 07, No. 4, pp. 705-722, ISSN 0974-5823*
- v. Yadav, A.S., Praveen, B.M., Ahlawat, N., **Agarwal, P.**, Pathak, K., Purohit, P. (2022): Mathematical Modeling of Corona virus vaccine supply chain Inventory System with Warehouse center using Deep learning and Artificial Bee Colony.
- ✦ **International Journal of Mechanical engineering** *Vol. 07, No. 4, pp. 687-704, ISSN 0974-5823*
- vi. Rani.S., **Agarwal, P.**, Jain, M. and Solanki, R (2021): A Software Reliability Growth Model considering Testing Coverage Subject to Field Environment.
- ✦ **International Journal of Mathematics in Operations Research** *Vol. 18, No. 2,pp. 145-153, ISSN 1757-5850*
- vii. Yadav, A. S., Sharma, V., **Agarwal, P.**, Swami, A., & Yadav, P. K. (2021): Pharmaceutical drug two-warehouse inventory model under FIFO dispatching policy using ant colony optimization for travelling salesman problem.
- ✦ *Linguistics and Culture Review*, Vol. 5, No. (S2),, pp. 1148-1171, ISSN: 2690-103X, <https://doi.org/10.21744/lingcure.v5nS2.1693>
- viii. Tyagi, S.L., Bansal, S., **Agarwal, P.** and Yadav, A.S. (2021): Mathematical Modeling and Availability Analysis of Leaf Spring Manufacturing Plant
- ✦ *Pertanika Journal of Science & Technology*, Vol. 29 (2), pp. 1041 – 1051, ISSN: 1287680.
- ix. Yadav, A.S., Kumar, A., Agarwal, P., Kumar, T. and Vanaja, R. (2020): LIFO in Green supply chain Inventory model of Auto-Components Industry with warehouses using Differential evolution.
- ✦ *Advances in Mathematics: Scientific Journal*, vol. 9, No. 7, pp. 5121-5126.
- x. M. Jain, **P. Agarwal**, R. Solanki (2020): NHPP- Based SRGM using time-dependent fault reduction factors (FRF) and Gompertz TEF.
- ✦ **Asset Analytics, Decision Analysis Applications in Industry, Springer**, 81-90, ISSN 2522-5162, <https://doi.org/10.1007/978-981-15-3643-4>.
- xi. **Agarwal, P.**, Rani, S. and Bansal, S. (2019): A SRGM using time dependent delay effect in fault detection and removal phenomenon.
- ✦ **International Journal of Innovative Technology and Exploring Engineering (IJITEE)**, vol. 8, No.-7C2, pp. 192-196, ISSN: 2278-3075.
- xii. Jain, M. and **Agrawal, P.** (2018): Discrete time software reliability growth models (D-SRGM) with imperfect debugging and learning factors
- ✦ **Review of Business and Technology Research, Modern Technology and Management, Inc., USA**, Vol. 15, No. 3, ISSN: 1941-9406, pp. 158-165.
- xiii. Jain, M., Agrawal, S. C. and **Agarwal, P.**: Markovian Software Reliability Model for Two Types of Failures with Imperfect Debugging Rate and Generation of Errors.
- ✦ **International Journal of Engineering, Iran**, Vol. 25, No. 2, 2012, pp. 177-188.
- xiv. Jain, M., Agrawal, S. C. and **Agarwal, P.**: NHPP Error Detection Software Model with Repair.
- ✦ **The Journal of Mathematics Today**, Vol. 26, pp. 57-66, 2010.

- xv. Jain, M., Agrawal, S. C. and **Agarwal, P.:** Free Rectification Life Time Warranty (FRLTW) Policy for a Repairable Product.
 - ✦ **The Journal of Rajasthan Academy of Physical Sciences**, Vol. 9, No. 4, 2010.
- xvi. Jain, M., Agrawal, S. C. and **Agarwal, P.:** Fuzzy Reliability Model for Log-Logistic Testing-Effort Dependent Software Growth.
 - ✦ **Advances in Information Theory and Operations Research**, VDM Verlag (Germany), pp. 131-141.
- xvii. Jain, M., Agrawal, S. C. and **Agarwal, P.:** Warranty Cost Analysis of Software Reliability Growth Model (SRGM) with Imperfect Debugging and Change-Point.
 - ✦ **Journal of International Academy of Physical Sciences (IAPS)**, Vol. 14, No. 3, pp. 345-355, 2010.

Awards and Achievements

- 'The Best Research Paper Award' during the Annual Conference of Vijnana Parishad of India held in Shobhit University, Meerut (March 24-26, 2011).

Workshops/Seminars/FDPs

- 15 days Virtual International FDP "Frontiers of Mathematics" organized by SRM IST, Ramapuram, Chennai in collaboration with "1 Decembrie 1918 University" of Alba Iulia, Romania from 05-07-2023 to 19-07-2023.
- 5 Days Faculty Development Programme on "Statistical analysis & Machine Learning using R programming" held at Symbiosis Center for Management Studies, Noida, 27-31 March, 2023
- 5 Days Faculty Development Program on "Application of Mathematics in Applied Sciences and Engineering" organized by GMR Institute of Technology-Rajam & National Institute of Technology, Warangal, 30th Jan-03rd Feb, 2023.
- Professional development on Digital Creative Skills as a part of Adobe Academic Essentials Program, organized by SRM IST Delhi-NCR Campus, Ghaziabad.
- One week Faculty Development Program on "Advanced Security Analytics and Machine Learning" held at SRM IST, Delhi-NCR Campus Ghaziabad, 18th Apr – 23rd Apr 2022.
- One week AICTE Sponsored QIP short term course on "**Numerical Linear Algebra in Applications to Data Sciences**" held at Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai, 07th March – 12th March 2022.
- Two week AICTE Approved faculty development program on "**Machine Learning, Data Science and Deep Learning with Python**" held at Singhad Institution of Management, Pune, 01st July-16th July, 2021.
- American Institute of Management and Technology (AIMT) virtual conference on **Interdisciplinary Research in Applied Mathematics, Management and Technology (IRAMMT)**, held at USA, a subsidiary of the Global Knowledge Foundation (GKF), Inc., USA, 20-21 June, 2021.

- MTMI International Conference on **Emerging Issues in Business, Technology and Applied Sciences**, held at VIRTUAL CONFERENCE, WASHINGTON, D.C. (USA), 11-12 Sep., 2020.
- Two week Faculty Development Program on “Mathematics and its Application in Science & technology” held at SRM IST KTR Campus, Chennai, 6th July – 16th July 2020.
- One Week Faculty Development program on “**Applications of MATLAB for Scientific & Engineering Computations**” held at SRM University Delhi-NCR, Sonapat, Haryana, 18-23 Nov., 2019.
- “**Commission for Scientific and Technical Terminology**”, Ministry of Human Resource Development, Department of Higher Education, held at SRMIST, Delhi-NCR Campus, Ghaziabad, 26-28 Apr, 2019.
- 9th International Conference on ‘**Quality, Reliability, Infocom Technology & Business Operations (Trends and Future Directions)**’ held at University of Delhi, December 27-29, 2018.
- 2018 MTMI International Conference on ‘**Emerging Issues in Business, Technology and Applied Sciences**’ held at University of Maryland Eastern Shore, USA, December 22-23, 2018.
- National Conference on ‘**Modeling, Optimization and Computing for Engineering Problems: Use Of Technical Hindi Terminology**’ held at IIT Roorkee, Roorkee, Oct. 12-14, 2018.
- Participated in the Faculty Development Programme on ‘**Eruditia18**’ held in SRM IST, Modinagar, June 12-23, 2018.
- National Conference on ‘**Advances in Operation Research and Mathematical Sciences**’ held at Vardhaman College, Bijnor (U.P.), Feb.24-25,2018
- International Conference on ‘**Recent Trends in Operations Research and Statistics**’ held at IIT Roorkee, Roorkee, December 28-30, 2017.
- National Workshop on “**Workshop on VEDIC MATHS**” held on 27th Jan, 2017, SRM University, NCR Campus, Modinagar.
- National Workshop on “**Modeling, Optimization and Simulation of Stochastic Systems**” held on 26th Nov, 2016, IIT Roorkee.
- International Conference on “**Global Initiatives in Applied Sciences and Green Technologies**” held on 9th – 11th Sep, 2016, SRM University, NCR Campus, Modinagar.
- One Week Faculty Development Program on “**Contemporary Trends in Research and Teaching Methodologies for Professional Development**” held on 4th-10th July, 2016.
- One Week Faculty Development program on ‘**Innovative Approaches in Mathematics & Statistical Sciences**’ held on 6th-11th July, 2015.
- Faculty Development Programme titled “**Teaching Ethics**” held at SRM University, NCR Campus on 24th Jan 2014, in association with CSI.
- National Conference on ‘**Computational and Mathematical Sciences Computatia-2012**’ held in VIT Campus, Jaipur, January 28-29, 2012.
- Intenational Conference on ‘**Advances in Modeling, Optimization and Computing**’ held in Indian Institute of Technology Roorkee, Roorkee, December 5-7, 2011.
- Annual Conference of ‘**Vijnana Parishad of India and The Global Society of Mathematical & Allied Sciences**’ held in School of Basic & Applied Sciences, Shobhit University, Meerut, March 24-26, 2011.

- 11th International Conference of '**International Academy of Physical Sciences**' held in Institute of Interdisciplinary Studies, University of Allahabad & The International Academy of Physical Sciences, Allahabad, February 20-22, 2010.
- 2nd National Seminar on '**Recent Trends In Advancement Of Mathematical And Physical Sciences**' held in D. N. College, Meerut, January 30-31, 2010.
- Seminar on '**National Meet of Research Scholars in Mathematical Sciences**' held in I.I.T. Roorkee, Department of Mathematics, Dec. 19-23, 2009.
- Workshop on '**Mathematical Modeling and Related Optimization Techniques**' in Delhi, Dec 14-17, 2009.
- Annual Conference of '**Vijnana Parishad of India & National Symposium**' held in Jaypee Institute of Engineering & Technology, Guna, December 4-6, 2009.
- 11th National Conference of '**Indian Society of Information Theory And Applications (ISITA)**' held in Amritsar, October 24-26, 2009.
- Workshop on '**Optimization Techniques and Their Applications To Various Displines**' held in Amritsar , October 19-23, 2009.
- 14th Annual Conference of '**Gwalior Academy Of Mathematical Sciences (GAMS) And A Symposium on Computational Mathematics and its Application to Engineering, Management and Biology**' held in Department of Applied Sciences and Humanities IPS College of Technology and Management, Gwalior, July 17-19,2009.
- Workshop on '**Faculty Development Programme on MATLAB**' held in Institute of Computer and Information Science, Dr. B. R. Ambedkar University, Agra, April 23-24, 2009.

Work Experience: 12 years

Professional Memberships: 03

- Vijnana Parishad of India (VPI)
- Math Tech Thinking Foundation (MTTF)
- International Association of Academic Plus Corporate