Profile Page

Name	:	Dr Deepika Rani
Designation	:	Assistant Professor Grade-i
Department	:	Mathematics
Qualification	:	Ph.D. Operations Research (IIT Roorkee)
		M.Sc. Mathematics and Computing (Thapar University, Patiala)
		B.Sc. Non-Medical (Panjab University, Chandigarh)
		CSIR-NET Mathematical Sciences (CSIR)
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Research Interests :

Multi-objective Optimization, Fuzzy Optimization

Other Profile Links :

Google Scholar Link :

Dr Deepika Rani [Click Here](#)

Journal Publications :

Year	Journal	Publication
2022	Computational and Applied Mathematics, Computational and Applied Mathematics, 41, 129 (2022)	Shivani, Deepika Rani, Ali Ebrahimnejad, An approach to solve an unbalanced fully rough multi-objective fixed-charge transportation problem
2022	Expert Systems with Applications, 202 (2022) 117264	Deepika Rani, Ali Ebrahimnejad, Gourav Gupta, Generalized techniques for solving intuitionistic fuzzy multi-objective non-linear optimization problems
2022	OPSEARCH, 59 (2022) 603-631	Gaurav Kumar, Kapil Kumar Goyal, Neel Kumar Batra, Deepika Rani, Single part reconfigurable flow line design using fuzzy best worst method
2022	International Journal of System Assurance Engineering and Management, 2022	Shivani, Deepika Rani, Multi-objective multi-item four dimensional green transportation problem in interval-valued intuitionistic fuzzy environment

Year	Journal	Publication
2020	Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci, 90, 157-167	Gourav Gupta, Deepika Rani, Sandeep Singh, "An Alternate for the Initial Basic Feasible Solution of Category 1 Uncertain Transportation Problems"
2019	Opserach, 56, 1007-1023	Sujeet Kumar Singh, Deepika Rani, A branching algorithm to solve binary problem in uncertain environment: an application in machine allocation problem
2018	National Academy Science Letters, 41, 293-294.	Gourav Gupta, Sandeep Singh, Deepika Rani, "A note on zero suffix method for the optimal solution of the transportation problems."
2017	International Journal of Fuzzy Systems, 19, 739–750.	Deepika Rani and T. R. Gulati, "Time optimization in totally uncertain transportation problems."
2016	Expert Systems with Applications, 64, 228–238	Deepika Rani, T. R. Gulati and Harish Garg, "Solving multi-objective non-linear programming problems in fuzzy environment: Optimistic and pessimistic view point"
2016	OPSEARCH 53, 761–777.	Deepika Rani and T. R. Gulati, "Application of intuitionistic fuzzy optimization technique in transportation models."
2016	Sadhana 41, 531–539.	Deepika Rani and T. R. Gulati, "Uncertain multi-objective multi-product solid transportation problems."
2015	Journal of Optimization, Volume 2015, Article ID 787050,13 pages	Deepika Rani, T. R. Gulati and Amit Kumar, "On fuzzy multi-objective multi-item solid transportation problem."
2014	Sadhana 39 , 573–581.	Deepika Rani, T. R. Gulati and Amit Kumar, "A method for unbalanced transportation problems in fuzzy environment."
2014	Advances in Intelligent Systems and Computing, 258, 881–888.	Deepika Rani and T. R. Gulati, "Fuzzy optimal solution of interval-valued fuzzy transportation problems."
2014	Journal of Transportation Security 7, 277-287.	Deepika Rani and T. R. Gulati, "A new approach to solve unbalanced transportation problems in imprecise environment."

Conference Publications :

Year	Conference	Publication
2022	The International Conference on Evolution in Pure and Applied Mathematics, Akal University, Talwandi Sabo, Bathinda	Deepika Rani and Shivani, EJMD method for an unbalanced fully intuitionistic fuzzy solid transportation problem
2022	Soft computing: Theory and Applications SOCTA2022	Shivani, Deepika Rani, A method to solve fractional transportation problems with rough interval parameters
2020	National Conference on Advances in Applied Sciences and Mathematics, NCASM 2020	G. Gupta, Deepika Rani, Method to solve fixed charge transportation problems with interval parameters, AIP Conference Proceedings, Volume 2357
2014	International Conference on Soft Computing for Problem Solving, IIT Roorkee	Fuzzy optimal solution of interval-valued fuzzy transportation problems, 258, 881-888

Events Organized :

Category	Type	Title	Venue	From	To	Designation
STC	International	STC on "Effective Research Proposal and Paper Writing (ERPPW)"	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	20-Dec-2019	24-Dec-2019	Convener
STC	International	STC on "Essential Tools for Optimization"	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	25-Jun-2020	29-Jun-2020	Coordinator

STC	International	STC on "Optimization & Statistical Models and Tools"	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	26-Aug-2020	30-Aug-2020	Coordinator
STC	International	STC on "Matrix Analysis and its Applications"	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	23-Sep-2020	27-Sep-2020	Coordinator
Expert Talk	National	Real Life Optimization Problems	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	17-Oct-2020	17-Oct-2020	Coordinator

Professional Affiliations :

Designation	Organization
Life Member	Operational Research Society of India
Life Member	Ramanujan Mathematical Society
Life Member	Soft Computing Research Society

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Ms. Divya	Optimization	In-progress	2022	Dr. Kapil Kumar, Assistant Professor, IPE
Mr. Awadhesh Kumar Bind	A Study of Multi-objective Transportation Problems with Imprecise Parameters	In-progress	2021	Dr. Kapil Kumar, Assistant Professor, IPE
Ms. Shivani	A study of optimization problems in uncertain environment	In-progress	2019	

PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Manjeet Singh	Network Schedule by CPM/PERT	Completed	2022	
Ankush Goel	Artificial Bee Colony Optimization	Completed	2022	
Vinita Kumari	Reliability in Series Parallel System	Completed	2022	
Umesh Indora	The Solid Transportation Problem	Completed	2022	
Mr. Ajay	A Multi-criteria Decision Making Method-TOPSIS	Completed	2020	
Mr. Rahul	Portfolio Optimization	Completed	2020	
Mr. Sahil Garg	Investment Analysis	Completed	2020	
Mr. Mayank Choudhry	Particle Swarm Optimization Method	Completed	2019	
Mr. Rajpal	Ant Bee Colony Algorithm to Solve Travelling Salesman Problem	Completed	2019	
Mr. Ajeet Singh	Fuzzy Programming Technique to Solve Multi-objective Transportation Problem	Completed	2018	
Ms. Priya Lochab	Fuzzy EPQ model with process reliability consideration under space constraint: A fuzzy parametric geometric programming approach	Completed	2018	

Admin. Responsiblities :

Position Held	Organization	From	To
Faculty incharge Dramatics club	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	March 2020	April 2022
Ph.D. Admission Commitee	Department of Mathematics, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	August 2018	Till date
Warden GH2	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	27-04-22	Till date

Faculty incharge Dramatics club	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	March 2020	April 2022
Ph.D. Admission Commitee	Department of Mathematics, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	August 2018	Till date
Warden GH2	Dr. B. R. Ambedkar National Institute of Technology, Jalandhar	27-04-22	Till date