

## Kumaun University, Nainital

### Curriculum Vitae

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Name : Dr. Deepak Kumar  
Designation : Sr. Assistant Professor  
Department : Mathematics, DSB Campus, KU, Nainital  
Contact Information  
• Email Address : deepakdev16@gmail.com  
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LinkedIn Profile (Optional) :  
ORCID ID : <https://orcid.org/0000-0002-7979-9307>

#### Educational Qualification

Degree	University	Subjects	Year
M.Sc.	GBPUA&T, Pantnagar	Major- Mathematics Minor-Computer Science	2011
Ph. D.	GBPUA&T, Pantnagar	Major- Mathematics Minor-Electronics and communication engineering	2015

#### Work Experience (add row if required)

Position	Department	University/Organization	Year
Assistant Professor	Mathematics, DSB Campus	Kumaun University, Nainital	2013 to present

#### Administrative Responsibilities (add row if required)

Position	Nature of responsibility	University/Organization	Year
Member of Examination Committee	Conducting examination in DSB Campus	DSB Campus, Kumaun University, Nainital	2019
Convener of M. Sc. I Admission Committee	Conducting examination in the Department of Mathematics, DSB Campus Nainital	Department of Mathematics, DSB Campus Nainital	2018 to present
Mentor in Outreach programme of Career counseling cell	Welfare of primary education in vulnerable region	Kumaun University, Nainital	2019 to 2020

## Research Interests

1. Reliability theory
2. Fuzzy set theory
3. Analysis

## Publications (start from recent publications)

### a) Research Papers (add row if required)

Authors name	Title of the paper	Vol, page no	Year
<b>Deepak Kumar,</b> Rana, S., & Kumari, A	Fuzzy Reliability assessment of urea fertilizer plant based an Petri nets method using a probabilistic picture hesitant fuzzy set	Life Cycle Reliability and Safety Engineering (20-feb- <b>2024</b> )	2024
Deepak Kumar, Rana, S., & Kumari, A	Tetracontatetragonal fuzzy number with application of fuzzy transportation problem, International journal of mathematics in operational research ( <b>2023</b> )	(Scopus Indexed)	2023
<b>Deepak Kumar,</b> Rana S.	A novel approach for analysis fuzzy reliability of washing system using q-rung orthopair fuzzy set theory	International journal of mathematics in operational research ( <b>2023</b> ) (Scopus Indexed)	2023
Mintu Kumar, <b>Deepak Kumar,</b> S B Singh	System reliability analysis based on Pythagorean fuzzy set	International Journal of Mathematics in Operational Research (inder science) ISSN 1757-5850 ( <b>2023</b> ), Vol. 24, No. 2, 2023, (Scopus Indexed)	2023
Jaya Bhadauria; Sudha Rana; Anita Kumari; <b>Deepak Kumar</b>	Reliability analysis of different complex systems using intuitionistic trapezoidal fuzzy number	IEEE explorer) ( <b>2022</b> ), 7 <sup>th</sup> International Conference on Computing, Communication and Security (ICCCS), DOI: 10.1109/ICCCS55188.2022.10079498	2022
Supriya; Suneel Kumar; <b>Deepak Kumar</b>	Fuzzy Reliability Evaluation Using Pythagorean Fuzzy Set Approach Emphasizing Score	IEEE explorer) ( <b>2022</b> ), 7 <sup>th</sup> International Conference on Computing, Communication and Security (ICCCS)	2022

	Function and Accuracy Function		
Anita Kumari; <b>Deepak Kumar</b>	New Applications in Computing Using Intuitionistic Fuzzy Set Approach	7 <sup>th</sup> International Conference on Computing, Communication and Security (ICCCS), (IEEE explorer) (2022)	2022
<b>Deepak Kumar</b> , Anita Kumari	Utilization Of Interval Valued Intuitionistic Fuzzy Soft Set in The Health Sector	International Journal of Health Sciences, ISSN 2550-696X (2022),(Scopus Indexed)	2022
<b>Deepak Kumar</b>	Some New Results Using Soft Conflicting Bifuzzy Set Approach	Journal of International Academy of Physica, ISSN 0974 - 9373 (2022)	2022
<b>Deepak Kumar</b> , Anita Kumari	Reliability appraisal of a system using interval-valued probabilistic dual hesitant fuzzy element	Materials Today: Proceedings (ScienceDirect, Elsevier), ISSN 2214-7853(2022), Vol. 57, issue 05, pp. 1995-2001, (Scopus Indexed)	2022
Padam Singh, <b>Deepak Kumar</b> , Anita Kumari	Effect of heat and mass transfer in nanofield flow along a vertical thin needle	Materials Today: Proceedings (ScienceDirect, Elsevier), ISSN 2214-7853(2022), Vol. 57, issue 05, pp. 1995-2001, (Scopus Indexed)	2022
<b>Deepak Kumar</b> , S.B. Singh and Pawan Kumar	Fuzzy reliability appraisal of a system using probabilistic dual hesitant fuzzy element emphasizing score function	International Journal of Mathematics in Operational Research (inder science) ISSN 1757-5850 (2022), vol. 21, no 1,issue 10, pp 67-82, (Scopus Indexed)	2022
<b>Deepak Kumar</b> , Anita K	A Generalized Fixed Point Theorem on Partial b-Metric Spaces, Fixed Point Theory and its Applications to Real W Fuzzy System Reliability Using Hesitant Fuzzy Element and Score Function, Advancements in Fuzzy Reliability Theory (book chapter)	ISBN: 978-1-53619-336-7. 24 May (2021), (Scopus Indexed).	2021
<b>Deepak Kumar</b> , S.B. Singh and	Fuzzy system reliability using	Advancements in Fuzzy Reliability Theory(book chapter) ISBN13: 9781799875642, 209-221.	2021

Anita Kumari	Fuzzy element and score function	02 feb (2021)	
<b>Deepak Kumar, S B SINGH</b>	Fuzzy reliability appraisal using interval valued intuitionistic hesitant fuzzy element and score function	International Journal of Reliability, Quality and Safety Engineering (IJRQSE), (2021),vol. 28	2021
<b>Deepak Kumar, Pawan Kumar, Anita Kumari</b>	Reliability and mean time to failure of unrepairable systems using intuitionistic fuzzy random lifetimes	Advances and Applications in Mathematical Sciences (Mili Publications) (2020), ISSN: 0974-6803, 1337-1366. Vol 19	2020
<b>Deepak Kumar, S B Singh</b>	Fuzzy reliability of a system using dual hesitant fuzzy element	The International Journal of Statistics and Reliability Engineering (IJSRE) (2020)	2020
<b>Deepak Kumar</b>	Soft intuitionistic fuzzy sets with some new operations	Journal of Engineering Research and Application (2019) ISSN : 2248-9622 Vol. 9	2019
<b>Deepak Kumar, S B SINGH</b>	Analysis of a mathematical reliability model for a system with fuzzy constant failure rate using trapezoidal fuzzy number	Journal of Engineering Research and Application (2019)	2019
Anita Kumari, <b>Deepak Kumar</b>	T-Curvature Tensor On Generalized (k- $\mu$ ) Contact Metric Manifolds	, IOSR Journal of Mathematics (IOSR-JM), (2019)	2019
<b>Deepak Kumar, Anita kumari</b>	Conjunction as Cohesive Devices in the Writing of Mathematicians	IOSR Journal of Mathematics (IOSR-JM) (2019)	2019
<b>Deepak Kumar, S B SINGH, Anita Kumari</b>	An Evaluation of the System Reliability Using Fuzzy Lifetime Distribution Emphasising Hexagonal Fuzzy Number	IOSR Journal of Engineering (IOSRJEN) (2019), ISSN:2278-8719, 17-25	2019
<b>Deepak Kumar, S B Singh</b>	Some Characterisations of $\alpha$ -Cut in Conflicting Bifuzzy Set Theory	International Journal of Computer & Mathematical Sciences (IJCMS), (2015), 94-98	2015
	Evaluating fuzzy	Innovative application of	2015

	reliability using rough intuitionistic fuzzy set	computational intelligence on power, energy and controls with their impact on humanity (IEEE explorer) (2015)	
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b) Patents (start from recent publications) **(add row if required)**

Authors name	Title of the patent	Patent no (Granted or filed)	Year
Deepak kumar et al.	A computational method for financial time series forecasting based on hesitant fuzzy sets	202311039817A	2023
Deepak kumar et al.	Multi-criteria decision making based on intuitionistic fuzzy sets	202211003444 A	2022

c) Books (start from recent publications) **(add row if required)**

Authors name	Title of the book	Publisher	ISBN	Year
Deepak kumar et al.	Matrices, Trigonometry and Differential calculus	Thakur Publication	978-93-5480-641-4	2022

d) Book chapters (start from recent publications) **(add row if required)**

Authors name	Title of the book	Publisher	ISBN	Year
Deepak kumar, Pawan kumar	Evaluating Fuzzy System Reliability using a Time Dependent Hexagonal Fuzzy Number	River Publishers (Taylor n Francis)	ISBN978 10034258 85	2023
Deepak kumar, Anita kumari	Recent advances in mathematics and optimization	Selective & Scientific Books (SSB)	978-93-92787-31-7	2022
Deepak kumar, Anita kumari	Fixed Point Theory and its Applications to Real World Problems	NOVA Publication	978-1-53619-336-7	2021
Deepak kumar	Advancements in Fuzzy Reliability Theory	IGI Global publisher	9781799875642	2021

e) Conference Publications/Proceedings (start from recent publications) **(add row if required)**

Authors name	Title of the paper	Conference name	Year
Deepak Kumar	Reliability estimation of any complex	ICETSAST 2024	2024

	structure under specific fuzzy environment		
Deepak Kumar	Reliability appraisal of a system using interval-valued probabilistic dual hesitant fuzzy element	ICIAST-2021	2021
Deepak Kumar	<b>Fuzzy Reliability Appraisal using Interval Valued Intuitionistic Hesitant Fuzzy Element and Score Function</b>	ICMTEA 2020	2020
Deepak Kumar	FUZZY RELIABILITY ANALYSIS AND FIXED POINTS	<b>International e-Conference on Fixed Point Theory and its Applications to Real World Problems</b>	2020

**Projects (add row if required)**

Title of the project	Funding agency	Amount (Rs)	Year
Reliability appraisal of various complex systems using fuzzy set theory	Kumaun University, Nainital	2.0 Lakh	2023-24

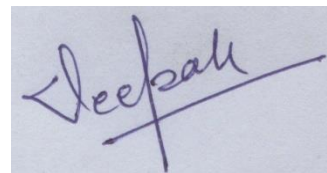
**Teaching details (add row if required)**

Name of the course/paper	Department	University	Year
Matrix, trigonometry and vector calculus	Mathematics	Kumaun University	2013-17
Integral calculus	Mathematics	Kumaun University	2014-18
Linear algebra	Mathematics	Kumaun University	2018,2019,2023,2024
Differential equation	Mathematics	Kumaun University	2019-2023
Topology	Mathematics	Kumaun University	2013-2024
Complex analysis	Mathematics	Kumaun University	2019,20
COV and integral equations	Mathematics	Kumaun University	2019,2020,2021,2022

Advanced algebra	Mathematics	Kumaun University	2022
Abstract algebra	Mathematics	Kumaun University	2021,2022

**Honours and Awards (add row if required)**

Award	Awarding Organization	Year
Prof. YPS Pangtey Research Award	Kumaun University	2023

A handwritten signature in blue ink, appearing to read 'Deepak', written over a horizontal line.

**Signature of the faculty member**