



Islamic University of Science and Technology Awantipora, Kashmir

Department of Mathematical Sciences

Research Profile

Our faculty are actively engaged in research work and have published more than 270 journal articles and book chapters in reputed national and international journals. The main thrust areas of their research include mathematics education, use of mathematics in understanding cultural order, generalized probability distributions and Bayesian inference, probability models in medical sciences, Laplacian spectra of graphs and digraphs, statistical information theory and weighted distributions, wavelet analysis, fixed point theory.

In addition, three Ph.D. theses have been supervised by our faculty and four more are on-going. Furthermore, research project grants of over Rs 38 lakh have been awarded to our faculty recently. The details of the projects are as under:

Recent Research Projects:

S. No.	Title of the Project	Year Sanctioned/ Submitted	Granted/pro posed Amount (INR)	Funding Agency	Status (Ongoing/Completed/Submitt ed)
1.	A Study of Wavelets on Local Fields	2019	10 lakhs	UGC	Ongoing
2.	A Study of Basic Hypergeometric Functions and Their Applications with Special Reference to Integral Transforms	2021	7.50 lakhs	JKST&IC, DST J&K	Ongoing
3.	Probabilistic Topic Modelling of Large Text Corpora Using Weighted Latent Dirichlet Allocation for theme-based Information Retrieval	2018	2.80 lakhs	IUST	Ongoing
4.	Data Gathering Analysis and Protection of Privacy through Randomized Response Algorithm	2021	6.30 lakhs	JKST&IC, DST J&K	Ongoing
5.	Laplacian Energy of Graphs and Digraphs	2019	4.45 lakhs	TEQIP-III	Completed
6.	A Study of Basic Hypergeometric Functions and Their Generalizations with Reference to quantum calculus.	2019	5.20 lakhs	TEQIP-III	Completed
7.	Analysis and Protection of Privacy through Randomized Response Techniques using Branch and Bound Algorithm	2019	02 lakhs	TEQIP-III	Completed