

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. Furthermore, research project grants of over Rs 50 lakh have been awarded to our faculty recently. The details of the projects are as under:

(i) Ongoing Projects: Total Amount (₹) 9.96 Crore and Total No. of Research Projects: 05

S. No.	Name of the Investigator	Project No.	Funding Agency	Title of the project and duration (Strat and end date)	Amount sanctioned
1	Dr. Peer Bilal Ahmad	JKST&IC/SRE/906-10	JKDST	Statistical count Modelling of length of stay (LOS) of Tourists visiting J&K and the factors affecting it; (Jan, 2024- Dec. 2025)	5.5 Lakhs
2	Dr. Peer Bilal Ahmad (Co-PI)	SR/PURSE/2022/121 (G)	DST	Establishment of an interdisciplinary Science and Technology Research Program for Chronic Diseases (DST, PURSE) (April, 2023- March 2027)	9.76 Crores
3	Dr. Bilal Ahmad Chat	JKST&IC/SRE/911-15	JKDST	Study of some modified mathematical models using Fibonacci sequences (Jan, 2024- Dec. 2025)	5.5 Lakhs
4	Dr. Bilal Ahmad Para	NO.0201 1/5;2025/NBHM (R.P)/ R&D II/ 1664	Department of Atomic Energy (NBHM)	Development of Some Novel Count Regression Models for Patient Outcomes" (Jan, 2025 – Dec 2027)	3.53 Lakhs
5	Dr. Tanveer Ahmad Tarray (Co-PI)	JKST&IC/SRE/921-25	JKDST	Generalized Mathematical Models for Decision Making Problems using fuzzy Algorithm (Jan, 2024- Dec. 2025)	6.65 Lakhs

(ii) Completed Projects: Total Amount (₹) 33.45 Lakhs and Total No. of Research Projects: 05

S. No.	Name of the Investigator	Project No.	Funding Agency	Title of the project and duration	Amount sanctioned
1.	Dr. Bilal Ahmad Chat	1-5758410967	MHRD, GOI (NPIU-CRS-TEQIP-III)	Laplacian Energy of Graphs and Digraphs (2019-2022, Two Years)	4.45 Lakhs
2.	Mohd Younus Bhat	F30-498/2019(BSR)	UGC	A Study of Wavelets on Local Fields (2021-2023, Two Years)	10 Lakhs
3.	Mohd Younus Bhat	JKST&IC/SRE/J/357-60	JKDST	A Study of Basic Hypergeometric Functions and Their Applications with Special Reference in Integral Transforms; (2022-2023; Two Years)	7.5 Lakhs
4.	Mohd Altaf	1-5758410968	MHRD, GOI (NPIU-CRS-TEQIP-III)	Study of Basic Hypergeometric Functions and Their Generalizations with Reference to Quantum Calculus. (2019-2022, Two Years)	5.2 Lakhs
5	Dr. Tanveer Ahmad Tarray (Co-PI)	JKST&IC/SRE/397/400	JKDST	Data Gathering Analysis and Protection of Privacy through Randomized Response Algorithm (2022-2023; Two Years)	6.3 lakhs