Miss Partiswari Maharana, NFOBC Fellow, JRF

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Details of the funding agency/ scheme	UGC-NFOBC, Govt. of India, New Delhi. Letter No-F./2015-16/NFO-2015-17-OBC-ORI-33062/(SA-III/Website). Date : February, 2016
Title of the research topic	ON VALUE DISTRIBUTION OF RANDOM POLYNOMIALS AND RANDOM ANALYTIC FUNCTIONS
Abstract of the research work (max. 300 words)	The main aim is to study on value distribution of random polynomials and random analytic functions. Following is a list of some problem that will be investigated in this proposed work. (1)To study on the expected number of realzeros,complex zeros, average number of maxima and inflection points of polynomial of the form

	$\sum_{n=0}^{n} X_k P_k(t)$, where X_k, (K=0,1,….,n) are a finite number of random variables and $\{P_k(t)\}_{k=0}^{n}$ are orthogonal polynomial like Jacobi polynomial, chebyshev polynomial, legendre polynomial. The random coefficients will be choosen to be independent, dependent and from α-stable domain of attraction. (2) To study on zeros of random complex polynomials with complex random coefficients. (3) To investigate on the critical points of the polynomials of the form $Q_n(z) = P_n \prod_{k=0}^{n}(z - \xi_k)$, where $\{\xi_k\}_{k=1}^{n}$ are determinastic points and $P_n(z)$ are polynomials whose roots are considered to be random variables like independent identically distributed, dependent and from α-stable domain of attraction. (4)To study on zeros in the sector, to find the average counting functions, to compute the number of zeros and to estimate the hole probability of random analytic functions, and random entire functions with different random coefficients like independent identically distributed ,dependent and from α-stable domain of attraction.
Progress of the research work	I am trying to solve one of the proposed problem i.e. to find out the expected number of zeros of a random polynomial with dependent random coefficients having different types of specific variance.
Journal publication (International)	
Conference attended	(1) Attended Workshop on "LATEX FOR RESEARCH" held at Dept of Mathematics , MNIT, JAIPUR, RAJASTHAN, INDIA during 21st -25th July, 2016 (2) Attended Workshop on "AFS I(ATM SCHOOL)" held at HRI, ALLAHABA, INDIA during 03-12-2016 to 05-01-2017. (3) Attended "TEQIP Sponsored Two Days International Workshop Recent Trends in Mathematics and Applications(IWRTMA-2016)" held at Veer Surendra University of Technology, Burla, Odisha, INDIA during 1th - 2th August, 2016. (4)Workshop on ''Solid and Hazardous Waste Management'' organized by P. G. department of Environment Science, Sambalpur University, JyotiVihar,

	Odisha during March 23rd , 2017. (5)Attended Workshop on ''AFS II(ATM SCHOOL)'' held at BHASKARACHARY PRATISHTHANA, PUNE, INDIA during 08-05-2017 to 03-06-2017.
Awards	(1)Awarded the NFOBC by University Grant Commission(UGC), New Delhi, Govt. of India for the academic year 2015-17.