Miss BharateeMangaraj, UGC-RGNF Fellow, JRF

Name of the Scholar	Miss Bharatee Mangaraj
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Registration Number	Applied for registration
Name of the Department & address	Dept. of Mathematics, Sambalpur University, Jyoti-Vihar, Burla Sambalpur – 768019, ODISHA
Name of the supervisor &Correspondence address	Dr. (Mrs.) SabitaSahoo Dept. of Mathematics Sambalpur University Jyoti-Vihar, Burla Sambalpur – 768019, ODISHA
Details of the funding agency/ scheme	UGC-RGNF, Govt. of India, New Delhi. Letter No-F1-17.1/2015-16/RGNF-2015-17-SC-ORI-20053/(SA-III/Website). Date : January, 2016
Title of the research topic	On Vector-valued Fourier transform and Random Fourier transform
Abstract of the research work (max. 300 words)	The objective of this work is on vector - valued Fourier transform and random Fourier transform : (i) To study the growth of vector - valued Fourier transform $F_G(\mathrm{f})(\gamma) = \int_G f(x)\,\overline{\gamma(x)}\,d\mu_G(x)$, in the Bochner - Lebesgue space L_P X(G), where G is a locally compact abelian group like $\mathbb{R}_d$,$\mathbb{T}_d$, $\mathbb{Z}$ and the Cantor group $\mathbb{D}$= {0,1}$^{\mathbb{N}}$. An investigation shall be undertaken to the zeros of these Fourier transforms. (ii) To study different properties and growth of the

	random Fourier transform $\int_{-\infty}^{\infty} f(\lambda)e^{i\lambda t}dX(\lambda , \omega)$ of suitable function f, where $X(\lambda , \omega)$ is a Stochastic process like Wiener process and Stable process.
Progress of the research work	Now I am trying to prove the existance of the random Fourier transform $\int_{-\infty}^{\infty} f(\lambda)e^{i\lambda t}dX(\lambda , \omega)$, where $X(\lambda , \omega)$ is a Stochastic process.
Journal publication (International)	
Conference attended	1) Attended Workshop on "LATEX FOR RESEARCH" held at Dept of Mathematics , MNIT, JAIPUR, RAJASTHAN, INDIA during 21^{st} -25^{th} July, 2016 2) Attended Workshop on "AFS 1(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)" heldat VeerSurendraSai University of Technology,Burla, Odisha, INDIA during 1th - 2th August, 2016.
Awards	1)Awarded the RGNF-SCby University Grant Commission (UGC), New Delhi, Govt. of India for theacademic year 2015-17.