Personal Details

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Academic background

S.No.	Qualification	University / Institution	Year	Subject(s) / Topic(s)	%marks	Distinctions etc.
1	Ph. D (Electronics Engineering)	IIT (ISM) Dhanbad	2002	Thesis Topic: *"**On Development of Sensor Fusion strategies for Robotic Applications**"* Mathematical fusion models developed with Neural Network formulation and spatial optimization.	NA	Inter-disciplinary research, under a Professor of Robotics, Mech Engg., Acclaimed in two SPIE conferences at Orlando, Florida and two good journals. The model was applied to real-Blast-Furnace Data of Bokaro Steel Plant, SAIL
2	M. Tech (Electronics Engineering)	IIT (ISM) Dhanbad	1997	Thesis Topic: ***Implementation, testing and performance of encryption algorithms.***	(M. Tech by research) With E-grade (Excellent) in course works.	Awarded Young Scientist Fellowship from DST, Govt. of India, and BCST, Patna, for the Project work.
3	B. Tech (Electronics and Communication Engineering)	B. I. T. Sindri	1990	All Core ECE subjects	86.6%	First Class with distinction and 2nd topper in University

Employment Details

S. No.	Post	Organization/ University	Duration		Experience (In Years and Months)
			From (Date)	To (Date)	
1.	Professor	IIT (ISM), Dhanbad	1/1/2010	Till date	14 Years
	Associate Professor		2008	2010	3 Years
	Assistant Professor		2002	2008	5 Years
	Lecturer		1998	2002	4 Years
2.	Lecturer	B. I.T. Sindri, Dhanbad	25/3/1992	16/11/1998	6 Years
3.	Management Trainee (Technical)	Rourkela Steel Plant (SAIL)	1/8/1991	24/3/1992	8 months

Research projects

S.No.	Client/Organisation'sname	Nature of project	Duration of project	Amount of grant (Rupees)
1	MODROB - MHRD	Development of UG Communication lab of ECE as PI	2004-2006	10 Lakhs
2	UGC MRP	Implementation of Spectrum Sensing for Cognitive radio as PI	2013-2016	12.94 lakhs
3	DST-SERB	Analysis of Phono-Cardiogram Signals for Classification of heart valve diseases as Post-Doc Fellow mentor	2017-2019	18.7 lakhs
4	DRDO	Perception informed by navigation for Search and Rescue, as Co-PI	2018-2020	27.4 Lakhs
5	NTPC	To Design, Develop and fabricate a Piezoelectric Sensor based Ash Level Measurement System as Co-PI	2018-2020	21.12 Lakh

Research Specialization Areas: **Wireless Communication- 5 G technologies, Communication Networks, Machine Learning and Statistical Signal processing**
Application domains and strong expertise topics: Cognitive Radio, Hidden Markov Modeling, Kalman Filtering, Estimation/Detection, Spectrum Sensing, Convex Optimization, Genetic Algorithms, Particle Swarm Optimization, ANFIS based Intelligent Control, Radar tracking algorithms, Radio Environment Mapping, TV-White-Space sensing , USRP experimentation , Spatial interpolation, Support Vector Machines, Convolution Neural Networks. Matrix Completion.

Number of PhD scholars guided: 11 awarded degree + 2 ongoing