

# Curriculum Vitae

1. Name: Dr. Suman Ranjan
2. Department: Electrical Engineering
3. Email id: [sumanranjan9@ee.ism.ac.in](mailto:sumanranjan9@ee.ism.ac.in)  
sumanranjan.ee@bitsindri.ac.in
4. Phone Number: 07004864974
5. Office Address: E-04, Dept. of Electrical Engg., B.I.T. Sindri, Dhanbad.
6. Qualification:



S. No	Degree(UG, PG, PhD)	Specialization	Institute
1	B.Tech (2011)	Electrical Engineering	B.I.T. Sindri, Dhanbad
2	M.Tech (2014)	Power System Engg.	IIT (ISM) Dhanbad
3	PhD (2020)	Electrical Engineering	IIT (ISM) Dhanbad

7. **Area of Specialization:** Microring Resonator, Optical Filters, Power System Protection

### 8. Subjects Taught:

- I) **UG:-**Basic Electrical Engineering, Measurement & Instrumentation, Computer Aided Power System, Soft Computing Techniques, Soft Optimization Techniques.
- II) **PG:-**Soft Computing, Digital Signal Processing, HVDC and FACTS

### 9. Professional Experience:

#### I) Teaching Experience:

Sl. No.	Position held	Name of Organization	from	to
1.	Assistant Professor	B.I.T. Sindri. Dhanbad	04/01/2018	Till Date

#### II) Research Experience:

Sl. No.	Position held	Name of Organization	from	to
1.	Junior Research Fellow	IIT (ISM) Dhanbad	14/07/2014	13/07/2016
2.	Senior Research Fellow	IIT (ISM) Dhanbad	14/07/2016	03/01/2018

### 10. Publications:

#### I) International Journal:

Sl.	Title of the paper	Authors	Name of the	Vol/N	Public	Pages
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No.			journal in which publication has been made	o.	ation Year	
1.	Quadruple micro optical multiple asymmetric ring resonator performance analysis as optical filter	Suman Ranjan, Sanjoy Mandal and Suchita Lakra	Optik: (SCI: Thomson Reuters)	127	2016	11075 - 11085
2.	Performance Analysis of Triple Asymmetrical Optical Micro Ring Resonator with $2 \times 2$ Input-Output Bus Waveguide	Suman Ranjan and Sanjoy Mandal	Brazilian Journal of Physics (SCI: Thomson Reuters)	48	2018	74-84
3.	Performance analysis of triple asymmetrical optical multiple ring resonator with a $1 \times 3$ input-output waveguide for application as an optical filter	Suman Ranjan and Sanjoy Mandal	Applied Optics (SCI: Thomson Reuters)	57(9)	2018	2040-2049
4.	Performance analysis of quadruple asymmetrical optical micro ring resonator as optical filter	Suman Ranjan and Sanjoy Mandal	Optik: (SCI: Thomson Reuters)	171	2018	821-832
5.	Optimal coordination of directional overcurrent relays in complex distribution networks using sine cosine algorithm.	Kumari Sarwagya, Paresh Kumar Nayak and Suman Ranjan	Electric Power Systems Research (SCI: Thomson Reuters)	187	2020	1-10
6.	Modelling and analysis of quadruple asymmetrical optical micro-ring resonator for biosensing application	Suman Ranjan, K. Sarwagya, S. Mandal & P. Rai	IEEE Sensors Journal (SCI: Thomson Reuters)		2021	1-8

## II) International Conference :

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages
1.	Enhanced FSR Triple Ring Resonator	3rd Int'l Conf. on Recent Advances in Information Technology	DOI: <a href="https://doi.org/10.1109/RAIT.2016.7507982">10.1109/RAIT.2016.7507982</a>	2016	1-4

2.	Mathematical modelling of extrinsic Fabry-Perot Interferometer cavity	3rd International Conference on Microwave and Photonics (ICMAP 2018)	DOI: <a href="https://doi.org/10.1109/ICMAP.2018.8354514">10.1109/ICMAP.2018.8354514</a>	2018	1-2
3.	Performance Analysis of Quadruple Asymmetrical Optical Microring Resonator	4th Int'l Conf. on Recent Advances in Information Technology	DOI: <a href="https://doi.org/10.1109/RAIT.2018.8388991">10.1109/RAIT.2018.8388991</a>	2018	1-6
4.	Z-domain modelling of a quadruple asymmetrical micro optical ring resonator and its performance as optical filter	Optical Instrument Science, Technology, and Applications, SPIE, Frankfurt, Germany	DOI: 10.1117/12.2312527	2018	1-6
5.	Detection and classification of Faults in Distribution System using Signal Processing techniques	ICCECE-2020 Techno India, Salt Lake, West Bengal.	DOI: <a href="https://doi.org/10.1109/ICCECE48148.2020.9223072">10.1109/ICCECE48148.2020.9223072</a>	2020	1-6

### III) National Journal :

Sl. No.	Title of the paper	Name of the journal in which publication has been made	Vol/No.	Publication Year	Pages
1.	PERFORMANCE ANALYSIS OF QUADRUPLE OPTICAL RING RESONATOR	International Journal of Electrical and Electronics Engineering Research (IJEEER)	ISSN(P): 2250-155X; ISSN(E): 2278-943X	2016	387-396
2.	SOLUTION OF OPTIMAL POWER FLOW USING EVOLUTIONARY TECHNIQUES	International Journal of Science, Technology & Management	Volume No 04, Special Issue No. 01	2015	417-427

### IV) National Conference :

Sl. No.	Title of the paper	Name of the Conference in which publication has been made	Vol/No.	Publication Year	Pages
1.	Solution of Economic Load Dispatch using an Improved Self-adaptive Particle Swarm Optimization	INTERNATIONAL CONFERENCE ON COMPUTATION OF POWER, ENERGY, INFORMATION AND COMMUNICATION (ICCPEIC)		2014	144-148

### 11. Symposium/ Workshop/Seminar/ Attended

Sl. No.	Title of Symposium/ Workshop/Seminar/ Short – term Courses	Date	Organizing Institute
1.	Advancement and Application of Soft Computing in Electrical Systems	13-17 July,2018	N.I.T. Patna & B.I.T. Sindri.
2.	Faculty Development Programme on ANN and Deep Learning	11-15June, 2018	B.I.T. Sindri
3.	Workshop on Outcome Based Education and Accreditation	16-17 Mar., 2018	B.I.T. Sindri
4.	TEQIP-III Faculty Induction Programme	31-04 Feb,2018	IIT Madras
5.	Advanced COMSOL Multiphysics Online Training	Jan 30- Feb 3, 2017	COMSOL Multiphysics
6.	Programmable Logic Controller (PLC) programming, Applications and Troubleshooting	2014	IIT (ISM) Dhanbad
7.	Matlab and Simulink for Engineering Applications	Sept. 2012.	IIT (ISM) Dhanbad

### 14. Project Experience:

Sl. No.	Organization	Position	Description
1	BIT Sindri and IIT (ISM) Dhanbad	Principal Investigator (PI)	<b>Title:</b> Design and modelling of microring resonator based biosensors. <b>Project Budget:</b> 14.96 Lakhs <b>Funding Agency:</b> AICTE under Collaborative Research Scheme (CRS) <b>Project Allocated:</b> 21/06/2019

15. Gate Rank: 2012 (Gate Score: 545, AIR: 1880) , 2013 (Q), 2014 (Q), 2016 (Q).

### 16. Personal Profile:

Father's Name	:	Mahanand Sahu
Mother's Name	:	Manju Devi
Date of birth	:	05/05/1988
Gender	:	Male
Category	:	General

<b>Category for Jharkhand state</b>	:	
<b>Permanent State</b>	:	Jharkhand
<b>Nationality</b>	:	Indian
<b>Languages Known</b>	:	English, Hindi
<b>Permanent Address</b>	:	Opposite Asha Jewellers, Gandhi Nagar, Dhanbad, Jharkhnad-826001
<b>Present address</b>	:	Opposite Asha Jewellers, Gandhi Nagar, Dhanbad, Jharkhnad-826001

**References:**

<b>S.L. No.</b>	<b>Faculty Name</b>	<b>Designation</b>
1.	Dr. Sanjoy Mandal	Associate Professor, Dept. of Electrical Engineering, IIT (ISM) Dhanbad, Jharkhand, India- 826004. Phone: 09470194782
2.	Dr. Kalyan Chaterjee	Associate Professor, Dept. of Electrical Engineering, IIT (ISM) Dhanbad, Jharkhand, India- 826004. Phone: 09431126489
3.	Dr. Paresh Kumar Nayak	Assistant Professor, Dept. of Electrical Engineering, IIT (ISM) Dhanbad, Jharkhand, India- 826004. Phone: 09471192452

**Declaration:**

I hereby declare that the above furnished particulars are true and the best of my knowledge and belief

Place: Dhanbad



Signature