# **Faculty Profile**

1. Name: Dr. Prashant Kumar Singh, Assistant Professor

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B.I.T. Sindri

Dhanbad – 828123

Jharkhand; India

#### 6. Qualification:

Sl.	Degree	Specialization	Institute	Year
No.	(UG,			
	PG,			
	PhD)			
1.	Ph.D.	Electronics & Communication	BIT Mesra, Ranchi	2018
		Engineering Dept.		
2.	M.E.	Wireless Communication	BIT Mesra, Ranchi	2012
		(Electronics & Communication		
		Engineering Dept.)		
3.	B.Tech.	Electronics &	COER, Roorkee	2007
		Telecommunication Engineering		

- 7. Area of Specialization: Microwave Engineering
- 8. Ph.D. Guided: NIL



## 9. Subjects Taught:

#### (I)UG:

- 1. Electromagnetic Field Theory
- 2. Microwave Engineering
- 3. Basic Electronics
- 4. Digital Electronics

#### (II)PG:

- 1. Wireless Communication
- 10. Professional Experience:
  - I) Teaching Experience:

Sl.	Position held	Name of Organization	from	to
No.				
1	Assistant Professor	BIT, Sindri	30.12.2022	Till date
2	Associate Professor	UCET, Hazaribagh	01.08.2019	14.07.2022
3	Assistant Professor	NIST, Berhampur, Odisha	30.01.2017	30.07.2019
		Odisna		
4	Assistant Professor	RTCIT, Anandi,	20.10.2008	24.01.2017
		Ormanjhi, Ranchi		

### II) Research Experience:

S1.	Position held	Name of Organization	from	to
No.				
1	Assistant Director	State Forensic Science	15.07.2022	29.12.2022
		Laboratory (SFSL), Hotwar, Ranchi		

## III) Industrial Experience:

Sl.	Position held	Name of Organization	from	to
No.				

#### 11. Publications:

### I) International Journal:

Sl.	Title of the Paper	Name of the Journal in which	Vol./No.	Publication	Pages
No.		publication has been made		Year	
1.	Ultra-Compact LPF	Microwave Review	Vol. 23,	2017	35-39
	with Wide Stop-		No. 1		
	Band				
2.	Design of	Microwave and Optical	Vol. 59,	2017	257-
	switchable	Technology Letters	Issue 2		260
	microstrip low pass				
	- band stop - band				
	pass filter				
3.	Ultra-compact	Microwave and Optical	Vol. 59,	2017	197-
	switchable	Technology Letters	Issue 1		201
	microstrip bandpass				
	- lowpass filter with				
	improved				
	characteristics				
4.	Design of Radial	Progress in Electromagnetics	Vol. 59	2015	127-
	Microstrip Band	Research C			134
	Pass Filter with				
	Wide Stop-Band				
	Characteristics for				
	GPS Application				

5.	Novel Compact	Microwave Review	Vol. 21,	2015	17-22
	Dual Bandstop		No. 1		
	Filter Using Radial				
	Stub				

## II) International Conference:

Sl.	Title of the Paper	Name of the Conference in	Vol./No.	Publication	Pages
No.		which publication has been		Year	
		made			
1.	Design of Novel	International Conference on	Vol. 426	2022	301-
	Radial Folded	Computational Techniques			308
	Microstrip Patch	and Applications (ICCTA			
	Antenna for	2021)			
	WiMAX	At: Kolkata, India			
	Application				
2.	Dual-Band Stop	International Conference on	Vol. 426	2022	165-
	Filter with	Computational Techniques			175
	Controllable Stop-	and Applications (ICCTA			
	Bands Based on	2021)			
	Defect in Shunt	At: Kolkata, India			
	Radial Stub				
3.	RF Front-End Band-	Fourth International	Vol. 673	2020	697–
	Pass Filters for GPS	Conference on			707
	Receiver	Microelectronics, Computing			
		and Communication Systems			
		MCCS 2019			
		At: Ranchi, India			
4.	Microstrip Low-	2015 IEEE Applied		2015	1-2
	Pass Filter Using	Electromagnetics Conference			
		(AEMC)			

	Modified Log	At: IIT Guwahati, India		
	Periodic Radial Stub			
5.	Design and	10 <sup>th</sup> International Conference	2014	13-16
	Development of	on Microwaves, Antenna,		
	Radial Stub Low-	Propagation & Remote		
	Pass Filter with	Sensing (ICMARS-2014)		
	Improved	At: Jodhpur, India		
	Characteristics			

### III) National Journal:

Sl.	Title of the Paper	Name of the Journal in which	Vol./	Publication	Pages
No.		publication has been made	No.	Year	

## IV) National Conference:

Sl.	Title of the Paper	Name of the Conference in which	Vol./	Publication	Pages
No.		publication has been made	No.	Year	

## V) Book Chapter:

Sl.	Title of the Chater	Name of the Book in	ISBN	Publication	Pages
No.		which publication has		Year	
		been made			
1.	Thin-Film	In book: Low-	eBook ISBN	August	
	Photovoltaic	Dimensional	9781003277378	2022	
	Devices with	Nanoelectronic Devices			
	Asymmetric	Publisher: Apple			
		Academic Press			

	Heterocontact				
	Geometries				
2.	Charge Storage	In book: Low-	eBook ISBN	August	
	Mechanism in	Dimensional	9781003277378	2022	
	Proteotronic	Nanoelectronic Devices			
	Capacitors	Publisher: Apple			
		Academic Press			
3.	A Survey on	In book: Industrial	eBook ISBN	February	273-
	Antennas for IIoT	Internet of Things	9781003145004	2022	284
	Application	Technologies and			
		Research Directions			
		Publisher: CRC Press			
4.	Design and	In book: Generation,	Online ISBN	January	263-
	Simulation of	Detection and	978-981-16-	2022	283
	Microstrip	Processing of Terahertz	4947-9		
	Antenna for	Signals			
	Terahertz	Publisher: Springer,			
	Applications	Singapore			
5.	High-Sensitive	In book: Advanced	Online ISBN	February	289–
	Terahertz	Materials for Future	978-981-33-	2021	314
	Biosensors	Terahertz Devices,	4489-1		
		Circuits and Systems			
		Publisher: Springer,			
		Singapore			
6.	Terahertz	In book: Advanced	Online ISBN	February	315-
	Antennas for	Materials for Future	978-981-33-	2021	330
	Future	Terahertz Devices,	4489-1		
	Communications	Circuits and Systems			
		Publisher: Springer,			
		Singapore			
7.	Possibilities of 5G	In book:	e-ISBN:	Aug. 2020	268-
	and its	INTERNATIONAL	9788770222174		274
	Application in	SYMPOSIUM ON 5G			

Rural India: A	& BEYOND FOR		
Short Survey	RURAL		
	UPLIFTMENT		
	Publisher: River		
	Publishers		

## 12. Patents (Filed/Granted)

Sl.	Name of the	Title of the Invention	Application/	Year	Status
No.	Inventor		Patent No. (As		(Filed /
			applicable)		Granted)
1.	S. MALLIK, R.	AN AUTOMATED	Indian Patent	2020	Publication
	ROY, G.	PROBING SYSTEM	application no.		Date:
	AHMAD, A.	FOR MESURING	202031041107A		16.10.2020
	RAJA, S. H.	ELECTRICAL			
	RAHEMAN, A.	CHARACTERISTICS			
	DASH, P.	OF ON-WAFER			
	PANIGRAHI,	DEVICES AND A			
	<b>P. K. SINGH</b> , S.	METHOD THEROF			
	GUHATHAKUR				
	ATA, N. B.				
	MANIK, P. DAS,				
	S. S. MAHATO				

## 13. Conference/ Workshop/Seminar/ Organized

Sl.	Title of Seminar / Conferences /	Funding /	Date of Seminar /
No.	Short – term Courses	Sponsoring Agency	Conferences / Short
			– term Courses
1.	International Conference on		09.10.2021 –
	Computational Techniques and		10.10.2021
	Applications (Virtual Mode)		
	At: Kolkata, India		

2.	Two-week Virtual Short term course	TEQIP-III	08.02.2021 -
	on "Research Trends in Electronics		19.02.2021
	and Communication Engineering-		
	2021"		
	At: UCET, Hazaribag		
3.	Two-days webinar on "Image	TEQIP-III	11.12.2020 –
	Processing using MATLAB"		12 .12.2020
	At: UCET, Hazaribag		
4.	One week workshop on "Research	TEQIP-III	10.02.2020 –
	Trends in Microwave Devices and		14.02.2020
	Antennas (RTMDA-2020)"		
	At: UCET, Hazaribag		
5.	5th National Conference on Devices	IEEE-NIST Student	02.03.2019
	and Circuits (NCDC2019)	Chapter (STB-	
	At: NIST, Berhampur, Odisha	63521)	
6.	9th IEEE ED Mini-Colloquium on	IEEE-NIST Student	01.03.2019
	Quantum Electronics	Chapter (STB-	
	At: NIST, Berhampur, Odisha	63521)	
7.	Basics of Antenna (Technical Talk)	RTCIT, Ranchi	10.12.2016
	At: RTCIT, Ranchi		
8.	158 <sup>th</sup> Birth Anniversary of Sir J. C.	RTCIT, Ranchi	30.11.2016
	Bose		
	At: RTCIT, Ranchi		
9.	Reflection on the Self (Motivational	RTCIT, Ranchi	19.11.2016
	Talk), At: RTCIT, Ranchi		

## 14. Symposium/ Workshop/Seminar/ Attended

Sl.	Title of Seminar / Conferences /	Date	Organizing Institute
No.	Short – term Courses		
1.	Training on "Forensic Engineering	$1^{st} - 12^{th}$ Aug. 2022	Central Forensic
	& Instrumentation"		Science Laboratory,
			Kamrup, Assam

2.	Professional Development Training	23 <sup>rd</sup> – 27 <sup>th</sup> Nov. 2020	IIM, Kozhikode
	Programme (Virtual Mode) for		
	TEQIP Institutions		
3.	One Week FDP on "VLSI Chip	16 <sup>th</sup> – 20 <sup>th</sup> Dec. 2019	Electronics & ICT
	Design Kands-on using open source		Academy
	EDA"		
4.	AICTE Sponsored QIP- Short	23 <sup>rd</sup> – 28 <sup>th</sup> Sep. 2019	IIT (BHU), Varanasi
	Course on "Microwave/Millimeter		
	Wave Devices and their		
	Applications"		
5.	TEQIP-III sponsored Workshop on	20 <sup>th</sup> – 24 <sup>th</sup> Aug. 2019	UCET, Hazaribag
	"Machine Learning and Data		
	Science"		
6.	One Week FDP on "VLSI Chip	8 <sup>th</sup> – 12 <sup>th</sup> Jul. 2019	Electronics & ICT
	Design Hands-on using open source		Academy
	EDA"		
7.	One Week FDP on "Antenna Trends"	1 <sup>st</sup> – 5 <sup>th</sup> Jul. 2019	Electronics & ICT
			Academy
8.	One Week FDP on "Advancements	3 <sup>rd</sup> – 7 <sup>th</sup> Jun. 2019	Electronics & ICT
	in Signal Processing & Optimization		Academy
	Techniques"		
9.	One Week FDP on "DSP & Sensors"	10 <sup>th</sup> – 14 <sup>th</sup> Dec. 2018	Electronics & ICT
			Academy
10.	National Workshop on MATLAB	4 <sup>th</sup> – 9 <sup>th</sup> Dec. 2017	NIST, Berhampur
11.	ISTE STTP on CMOS Mixed-Signal	30 <sup>th</sup> – 4 <sup>th</sup> Feb. 2017	IIT-Kharagpur
	and Radio Frequency VLSI Design		
12.	1st Refresher Programme in "Recent	26 <sup>th</sup> – 15 <sup>th</sup> Jan. 2017	IIT (ISM), Dhanbad
	Trends on Microwave Tevices and		
	Antennas"		
13.	QIP Short Term Course on "Design	19 <sup>th</sup> – 24 <sup>th</sup> Dec. 2016	IIT (BHU), Varanasi
	of Microwave Antennas and Passive		
	Components"		
L		l .	

14.	Workshop on "EM Simulations and	10 <sup>th</sup> – 11 <sup>th</sup> May 2013	BIT Mesra, Ranchi
	Design using FEKO tool		

#### 15. Administrative Position Held:

Sl.	Position held	Name of Organization	from	to
No.				
1.	Assistant Director	State Forensic Science	15 <sup>th</sup> Jul. 2022	29 <sup>th</sup> Dec.2022
		Laboratory (SFSL), Ranchi		
2.	Admission In-	UCET, Hazaribag	14 <sup>th</sup> Oct. 2020	14 <sup>th</sup> Jul. 2022
	charge			
3.	B.Tech. Technical	NIST, Berhampur	02 <sup>nd</sup> Jul. 2018	26 <sup>th</sup> Jul. 2022
	Seminar			
	Coordinator			
4.	Head of the	RTCIT, Anandi, Ormanjhi,	1 <sup>st</sup> Aug. 2015	31st Jan. 2016
	Department	Ranchi		
5.	Head of the	RTCIT, Anandi, Ormanjhi,	1 <sup>st</sup> Aug. 2016	24 <sup>th</sup> Jan. 2017
	Department	Ranchi		

#### 16. Award / Recognition Bestowed on Faculty (State / National / International)

- ➤ Keynote Speaker of A Seminar on "Importance of Mathematics in Technical Education and Research" on 22<sup>nd</sup> Dec. 2022 at Government Polytechnic Jagannathpur, Jharkhand
- ➤ Invited lecture (Virtual Mode) on "RF/Microwave Sensor Technology" (BPUT-Faculty Development and Training (BPUT-NCFDT) Nodal Centre: National Institute of Science and Technology, Berhampur, Odisha) on 25<sup>th</sup> May, 2022
- ➤ Invited Talk on "Microwave Devices for Sensing Application" during Five Days AICTE training and Learning (ATAL) sponsored Faculty Development Programe on "Soft Computing and its Application in Electromagnetics (SCAE-2021)" dated 23<sup>rd</sup> 27<sup>th</sup> Nov., 2021 at IIIT, Ranchi
- ➤ 2<sup>nd</sup> Topper in 12 Week NPTEL MOOC course on Electromagnetic Theory (July October, 2021) with Elite + Gold Certificate (AICTE approved FDP) <a href="https://archive.nptel.ac.in/noc/courses/noc21/SEM2/noc21-ee111/">https://archive.nptel.ac.in/noc/courses/noc21/SEM2/noc21-ee111/</a>

- ➤ 2<sup>nd</sup> Topper in 12 Week NPTEL MOOC course on Advanced Microwave Guided-Structures and Analysis (July October, 2021) with Elite + Gold Certificate (AICTE approved FDP)
  - https://archive.nptel.ac.in/noc/courses/noc21/SEM2/noc21-ee111/
- ➤ Talk on "Transmission Line Theory and its Applications" on 13<sup>th</sup> Feb, 2020 at during TEQIP-III sponsored Workshop on "Research Trends in Microwave Design and Antennas (RTMDA)" at UCET, Hazaribag during 10<sup>th</sup> 14<sup>th</sup> Feb. 2020
- ➤ Session Chair in 5th National Conference on Devices and Circuits (NCDC2019) at NIST, Berhampur, Odisha
- ➤ Qualified in Graduate Aptitude Test in Engineering (GATE) 2010

#### **REVIEWER:**

- International Journal of RF and Microwave Computer-Aided Engineering (IJRFMCAE)
- Progress in Electromagnetic Research (PIER)
- Electronics and Telecommunications Research Institute (ETRI)
- Computer Systes Science and Engineering (CSSE)
- 17. Members of Professional Bodies: