

Dr. Deepak Kumar Naik



1. **Name:** Dr. Deepak Kumar Naik
2. **Designation:** Assistant Professor (Stage-II)
3. **Nature of Appointment:** Regular
4. **Qualification:** PhD
5. **Phone No.** 7008309353
6. **ORCID:** <https://doi.org/0000-0003-0633-1604>
7. **VIDWAN ID:** 211003
8. **Google Scholar ID:** ECVpkWoAAAAJ
9. **E-mail ID:** deepaknaikbbsr@gmail.com
10. **Citation:** 56 **h-Index:** 4 **i-10 Index** 2
11. **Research Area:** Evolutionary Techniques, Characteristic Mode Analysis, Planar Antenna Design, Metasurface Antenna Design
12. **Education, Employments and Past experience**

Type of appointment	From Month/year- Month/year-	Designation	Institute/University
MSc	2005-2007		Berhampur University, Odisha
MTech	2012-2014		C. V. Raman College of Engineering, Bhubaneswar, Odisha
PhD	2020-2024		Berhampur University, Odisha
Faculty	2016 onwards	Assistant Professor	Department of Electronic Science, Berhampur University, Odisha

13. Teaching Experience:

Type of appointment	From Month/year- Month/year-	Designation	Institute/University
Regular	02/2018 onwards	Assistant Professor	Berhampur University

14. Course Taught from Joining onward

Year	MSC	MPhil, PhD
2024-2025	EL C104, EL C301, EL C202, EL SE404	
2023-2024	EL C104, EL C301, EL C202, EL SE404	

2022-2023	EL C104, EL C301, EL C202, EL SE404	
2021-2022	ELST C104, ELST C301, ELST C202, ELST SE404	
2020-2021	ELST C104, ELST C301, ELST C202, ELST SE404	
2019-2020	ELST C104, ELST C301, ELST C202, ELST SE404	
2018-2019	ELST C104, ELST C301, ELST C202, ELST SE404	
2017-2018	ELST C104, ELST C301, ELST C202, ELST SE404	
2016-2017	ELST C104, ELST C301, ELST C202, ELST SE404	

15. Publications Text Books /Book Chapter:

Sl No	Author	Title	Year	ISBN	Publisher
1					

16. Publications Journal (Starting from PhD)

Sl	Title	Author	Details	DOI	IF
1.	A Novel Asymmetric Spoof Surface Plasmon Polariton Transmission Line for High Gain Endfire Radiation Using Phase Reversal Condition	D. C. Panda, B. K. Santi, B. Raut, D. K. Naik, and R. Swain	Progress In Electromagnetics Research C 154, 97-103	http://dx.doi.org/10.2528/PIERC24120604	
2.	Pac-Man-Shaped Patch-Driven Broadband Circularly Polarized Metasurface Antenna With CMA-Based Quadruple-Mode Excitation	D. K. Naik, D. Charan Panda, R. Swain, A. Muduli and S. Nanda	IEEE Access, vol. 13, pp. 13644-13654, 2025.	https://doi.org/10.1109/ACCESS.2025.3526682	3.4
3.	A shorting post loaded symmetric non-uniform metasurface antenna for broadband circular polarization	Pani, S., Panda, D. C., Naik, D. K., & Swain, R.	<i>AEU-International Journal of Electronics and Communications</i> , Vol. 185, pp. 155416, 2024	https://doi.org/10.1016/j.aeue.2024.155416	3.0
4.	Review on Different Shaped Graphene Nanoribbon based Nano Interconnect for Next Generation Integrated Circuits	S. Patra, D. K. Naik, and N. Sahoo	<i>RESEARCH JOURNAL OF BERHAMPUR UNIVERSITY</i>		
5.	A new approach for CAD modelling of resonant frequency of microstrip antenna using multigene genetic programming	D.K. Naik, S. Pani, A.K. Sahu, and D.C. Panda	Journal of Physics: Conference Series, 2471 (1), 012006	https://doi.org/10.1088/1742-6596/2471/1/012006	
6.	CMA approach for a DGS-based wideband circular patch antenna with low cross polarization	D. K. Naik, R. Swain, D. C. Panda, and R. K. Mishra	IEEE Antennas and Wireless Propagation Letters 22 (3), 586-590	https://doi.org/10.1109/LAWP.2022.3219084	3.7
7.	Design of a broadband U-slot loaded E-shaped patch antenna using characteristic mode analysis	D.K. Naik, A.K. Sahu, R. K. Parida, P. Raiguru, D. C. Panda, R. K. Mishra	AEU-International Journal of Electronics and Communications 154, 154310	https://doi.org/10.1016/j.aeue.2022.154310	3.0
8.	Compact reconfigurable antenna system for spectrum interweaved cognitive radio	R. K. Parida, A.K. Sahu, D.K. Naik, P. Raiguru, D. C. Panda, R. K. Mishra	International Journal of RF and Microwave Computer-Aided Engineering, 32		
9.	Low-loss ultra-wideband beam switching metasurface antenna in X-band	R. Swain, D. K. Naik, A. K. Panda	IET Microwaves, Antennas & Propagation 14 (11), 1216-1221	https://doi.org/10.1049/iet-map.2019.0994	1.1

17. Publications of Patents

Sl	Title	Author	Applicat ion no.	Date of filing	Date of Publicati on	Date of Awards	National/In ternational
1.	Wireless Smart Meter System	1. Shalu Saharawat 2. Parul Saharawat 3. Dr. Jaya Gadge 4. Dr. Nandini V Patil 5. Deepak Kumar Naik 6. Dr. Prabhat Sharma 7. Dr. Hemantkumar Turkar 8. Dr. Chanakya Cn	417481-001	20/05/2024	03/02/2025	03/02/2025	National

18. Research Guidance

(PhD supervision as sole Guide)

Slno	Student Name	Thesis Title (PhD)	Status/Date
1			

(M. Phill Thesis Supervision:)

Sl no	Student Name	Thesis Title (M. Phil)	Status/Date
1			

Project Students Guided

Sl no	Student Name	Project Name	Appointment duration
1			

(M. Sc/MA Dissertation Thesis Guided)

Sl no	Student Name	Thesis Title (M. Sc /MTech Dissertation)	Status/Date
1	Amit Amartyaranjan Das	Mutual Coupling Reduction in Two-Port Circular Patch MIMO Antenna	Completed/2024
2	Bijayalaxmi Sahoo	Broadband Low-RCS Linearly Polarized Antenna Realized by Non-uniform Metasurface	Completed/2024
3	Biku Raut	Design and Optimization of a Single-Layer Metasurface for Wideband CP Antenna Applications	Completed/2024
4	Girija Nandini Behera	Dual Band Circularly Polarized Patch Antenna with Asymmetric Metasurface	Completed/2024
5	Subham Pattanaik	Image Segmentation Using Recurrent Neural Network	Completed/2023
6	Soubhagya Ranjan Behera	Image Segmentation using Convolutional Neural Network	Completed/2023
7	Soumyaprava Panigrahi	A Review on Optimization Technique: Past, Present, and Future	Completed/2023
8	Dibybjhanjani Sasmal	Study of Mutual Coupling Reduction using MIMO Technology	Completed/2023
9	Jeevan Kumar Yadav	Review on Mutual Coupling Reduction Technique for MIMO Antennas	Completed/2023
10	Alisha Rani Panda	Design of Dual Band Flexible Antenna (U-Shaped) for WLAN Applications using cst studio suite	Completed/2022
11	G. Pandab Reddy	A Multiband Patch Antenna with C-Shaped Parasitic Strip	Completed/2022

12	K. S. Ankita	Analysis and Optimization of Circular Polarized Patch using Characteristic Mode Analysis	Completed/2022
13	M. Tapaswini	Design of Simple Multiband Antenna with a Parasitic C-Shaped Strip	Completed/2022
14	Mrutyunjaya Padhy	A Triangular Microstrip Patch Antenna using Computer Simulation Technology (CST)	Completed/2022
15	Rajesh Kumar Sahu	A Triangular Microstrip Patch Antenna using Computer Simulation Technology (CST)	Completed/2022
16	Trayolaxmi Panda	TBA	Completed/2022
17	Akash Kumar Pradhan	TBA	Completed/2021
18	Anshuman Dash	TBA	Completed/2021
19	Rakesh Kumar Jena	TBA	Completed/2021
20	Saumya Ranjan Jena	TBA	Completed/2021
21	Susmita Pattanaik	TBA	Completed/2021
22	Brata Sundar Panda	Detecting Handwriting using RNN	Completed/2020
23	Manorama Sabar	Software Defined Radio (SDR)	Completed/2020
24	Rakesh Kumar Digal	Differentiate Cat and Dog using CNN	Completed/2020
25	Silpa Shu	Software Defined Radio (SDR)	Completed/2020
26	Babul Naik	PID Control Line Follower Robot	Completed/2019
27	Ramakrishna Mahapatra	PID Control Line Follower Robot	Completed/2019
28	Bandana Mohapatra	Blind Stick using Arduino Nano	Completed/2018
29	Bhandi Sunita	Home Automation using Arduino UNO	Completed/2018
30	Jagdish Nayak	Fruit Identification and Detection using Segmentation Technique for Machine Level Intelligence using MATLAB	Completed/2017
31	Sandip Kumar Behera	Design of OFDM Transmitter and Receiver System in Mobile Communication by using SIMULINK	Completed/2017
32	Deepali Jena	Implementation of ALU in VHDL Code using FPGA SPARTAN-6	Completed/2017
33	Rutuparnna Manasingh	Underwater Image Enhancement via Channel Prior and Histogram Equalization using MATLAB	Completed/2017
34	Sucheta Hota	Attendance Management System using Android	Completed/2017

19. LIST OF ONGOING/COMPLETED PROJECTS/CONSULTANCY: NA

	Title	Duration & ref.	Funded Agency	Amount	Status
1	Design of low-cost metasurface-based circularly polarized patch antennas for Wi-Fi and 5G communication in rural areas, PI: Dr. D. K. Naik	2023-2024	SEED GRANT, BERHAMPUR UNIVERSITY	1,00,000/	Completed
2	Design of a low-cost circularly polarized metasurface antenna for 5G/6G WiFi access points required in rural and semi-urban areas, PI: Dr. D. K. Naik	2024-2026	MRIP, OSHEC, GOVT. OF ODISHA	7,82,000/	Ongoing

20. Honors and Awards

Award	Year	Agency

21. Member of Professional Society and Alumni details

- Institute of Electrical and Electronics Engineers (IEEE)
- IEEE Antenna and Propagation Society
- Member, Alumni Association Berhampur University (AABU)

22. Selected Invited Talks / Presentation/Chair

Sl No	Chair/Talk	Topic	Place and Date
1	Talk	Modal Approach for Sub-6 GHz Planar Antennas	National Seminar on Electronic Device, Circuits, and Systems – 2025, Berhampur University, and 18.03.2025
2	Talk	Computing System: Contribution from Ancient to Modern India	Science College (Autonomous) Hinjilcut, 28.02.2025
3	Talk	Planar Antenna Design using CST Microwave Studio	One Week Faculty Development Programme on Advance Electronic Materials, Devices, and Systems, Berhampur University, 19.07.2024

23. Details of Conference Attended

Sl no	Abstract title	Place and Date
1		
2		
3		

24. Research Award by Scholars

Sl no	Scholar Name	Type of award	Date and Place	Any cash
1				

25. Details of Collaboration (2018-2025)

Sl No	Name of faculty	Name of University	Year
1	Dr. Priyadarshini Raiguru	SOA University	2022 onwards
2	Dr. Arjuna Muduli	JSPM University	2024 onwards
3	Dr Sambhudutta Nanda	VIT Andhra Pradesh	2024 onwards

26. Organization of Seminar/Training programmed

Name of Conference and Place	Convener/Co-convener/Member/Organizing secretary
National Seminar on 'Electronic Devices, Circuits, and Systems – 2025' organized by P.G. Dept. of Electronic Science, Berhampur University from 17-18 March 2025	Coordinator

one-week Faculty Development Program on 'Advanced Electronic Materials, Devices, and Systems' organized by the AIU-AADC, Berhampur University, in collaboration with the Association of Indian Universities (AIU), New Delhi, and the Department of Electronic Science, BU from 19-24 July 2024	Coordinator
National Seminar on 'Electronic Devices, Circuits, and Systems – 2023' organized by P.G. Dept. of Electronic Science, Berhampur University from 23-24 September 2023	Coordinator
one day workshop on "FPGA Based System Design" by Dept. of Electronic Science, Berhampur University on 10.1.2023	Coordinator
Webinar entitled "Recent Advances in Emerging Electronics" organized by P. G. Dept. of Electronic Science, Berhampur University from 22-23 February 2022	Coordinator

27. Student Progression in employment (PhD, /MPhil/MSc Dissertation)

Sl No	Student Name	Position	Where employed
1			

28. Editorial Member:

Sl No	Journal Name	Position	Year
1			

29. Administrative Experience:

Designation	Period
Programme Officer, NSS PG Unit-II, BU	02-09-2024 onwards
Member, AQAR Preparation Committee	2020 onwards
Member, BoS, DRC, and DRDC committee, Dept. of Electronic Science, BU	2018 onwards
Treasurer, ESSABU	21.9.2024 onwards
Asst. Superintendent, Dhanei and Kolab Ladies Hostels	2019-2021

30. Details of Conference Papers

1.	B. K. Santi, D. C. Panda, B. Raut and D. K. Naik, "A Wide-Angle Scanning Leaky-Wave Antenna Based on SSPP With Stable Gain," 2024 IEEE Calcutta Conference (CALCON), Kolkata, India, 2024, pp. 1-4, doi: 10.1109/CALCON63337.2024.10914096.
2.	N. Sahoo, S. Patra, A. K. Sahu, M. Mishra and D. K. Naik, "Modulation of I-V Characteristics in U-Shaped Armchair Graphene Nanoribbon-Based Tunnel Diode," 2024 IEEE International Conference of Electron Devices Society Kolkata Chapter (EDKCON), Kolkata, India, 2024, pp. 1-4, doi: 10.1109/EDKCON62339.2024.10870627. (IEEE Xplore).
3.	G. S. Patnaik, D. C. Panda and D. K. Naik, "A UWB MIMO Antenna Using h-Shaped Fractals," 2024 IEEE 4th International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2024, pp. 1-6, doi: 10.1109/AESPC63931.2024.10872175.
4.	A. K. Sahu, R. K. Parida, D. K. Naik, S. Pani and D. C. Panda, "Ku-Band Tunable Bandstop Filter using RF MEMS," 2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2021, pp. 1-3, doi: 10.1109/AESPC52704.2021.9708463.
5.	S. Pani, A. K. Sahu, D. K. Naik, R. K. Parida and D. C. Panda, "Metasurface for Independent Control of Reflection Amplitude," 2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2021, pp. 1-3, doi: 10.1109/AESPC52704.2021.9708485.

6.	D. K. Naik, A. K. Sahu, R. K. Parida, D. C. Panda and R. K. Mishra, "Knowledge-Embedded MGGP Model for Resonant Frequency of Microstrip Antenna," 2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2021, pp. 1-3, doi: 10.1109/AESPC52704.2021.9708521.
7.	A. K. Sahu, R. K. Parida, R. K. Mishra, D. K. Naik and D. C. Panda, "Extraction of DMTL Equivalent Circuit Parameters Using SMPPO," 2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE), Bhubaneswar, India, 2020, pp. 215-218, doi: 10.1109/WIECON-ECE52138.2020.9397931.
8.	D. C. Panda, A. K. Sahu, R. K. Mishra, D. K. Naik and S. K. Dash, "MEMS distributed transmissionline discontinuity parameter extraction using QUCS equation defined devices," 2017 IEEE Applied Electromagnetics Conference (AEMC), Aurangabad, India, 2017, pp. 1-2, doi: 10.1109/AEMC.2017.8325740.

15. International Collaboration:

Sl	Name of Scientist	Name of University	Country
1			

16. Details of Curricular and Extra-curricular activity

Sl No	Activity name	Place and date	Total participants
1			

17. Details of participation in Indian Knowledge system and Viksit Bharat

Sl No	Activity name	Place and date	Total participants
1			

18. Details of CSR /Outreach activities

Sl No	Activity name	Place and date	Total participants
1			

19. Details of Carrer counselling course

Sl No	Topic	Place and date	Total participants
1			

20. Any Other Information's not mentioned above,

Declaration: The above furnished information is true to the best of my knowledge.

Place: Berhampur University

Signature: Deepak Kumar Naik

Date: 08.04.2025

Name: Dr. Deepak Kumar Naik