



## Amiya Bhusana Sahoo, Ph.D.

**Designation** : Sr. Asst. Professor

**Department** : Department of Electronics Engg.

(JOINED THE INSTITUTE IN 2013)

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### RESEARCH INTERESTS

Analysis, design of wire antennas, patches antennas, antenna array, fractal, multiband antennas, Defected Ground Structures, metaheuristic algorithms and optimization techniques.

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### Academic Qualifications

Ph. D. : VSSUT, Burla, Odisha

M. Tech. : VSSUT, Burla, Odisha

Specialization: Communication System Engineering.

### Teaching Experience/Industrial Experience/Research Experience

Teaching Experience : 11 Years

Industry Experience : 3 Years (HCL Technology, Noida, India)

Research Experience : 9 Years

## PUBLICATIONS

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### JOURNAL ARTICLES & CONFERENCE PAPERS

#### JOURNALS:

- [1] **A. B. Sahoo**, G. P. Mishra, M. R. Jena, and B. B. Mangaraj, "Optimal Design and Comparative Study of Circular Patch Antennas Using Different Feeds for WLAN and WiMAX Applications," *International Journal on Communications Antenna and Propagation (I.Re.C.A.P.)*, vol. 6, no. 3, pp. 188-196, 2016.
- [2] S. K. Mohanty, **A. B. Sahoo**, and B. B. Mangaraj, "Comparative study of PSO and CS for optimisation of  $3 \times 5$  planar antenna array using MOM," *International Journal of Information and Communication Technology (IJICT)*, vol. 11, no. 1, 2017.
- [3] **A. B. Sahoo**, G. P. Mishra, and B. B. Mangaraj, "A Novel Dual Slot Circular Patch Antenna Design for Multi-band Applications," *Microwave Review*, vol. 24, no. 2, pp. 9-18, 2018.

- [4] G. P. Mishra, **A. B. Sahoo**, S. Hota , and B. B. Mangaraj, "Direct and electromagnetically coupled compact microstrip antenna design with modified fractal DGS," *International Journal of RF and Microwave Computer-Aided Engineering*, vol. 29, no. 10, pp.1-18, 2019. DOI: <https://doi.org/10.1002/mmce.21887>
- [5] **A. B. Sahoo**, G. P. Mishra, and B. B. Mangaraj, "Optimal Design of Compact Dual-Band Slot Antenna using Particle Swarm Optimization for WLAN and WiMAX Applications," *Recent Advances in Electrical and Electronics Engineering*, vol. 12, no. 5, pp. 425-431, 2019.
- [6] **A. B. Sahoo** and B. B. Mangaraj, "A Miniaturized Electromagnetically Coupled Patch Antenna Design using Eroded Ground Plane," *Microwave and Optical Technology Letters*, vol. 62, no. 11, pp. 3589-3600, 2020. DOI: <https://doi.org/10.1002/mop.32480>
- [7] **A. B. Sahoo**, G. P. Mishra, and B. B. Mangaraj, "Design and Performance Study of Single and Multi-Layered Fractal Based Miniaturized Patch Antennas for 2.4 GHz Applications," *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*, vol. 20, no. 2, pp. 274-296, 2021. DOI: <http://dx.doi.org/10.1590/2179-10742021v20i21165>

#### CONFERENCES:

- [1] **A. B. Sahoo**, H. Pradhan, S. K. Mohanty, and B. B. Mangaraj, "Analysis of 3x5 Planar Array Antenna with Mutual Coupling and Optimization Using PSO" *International Conference on Emerging Trends in Computing, Communication & Networking*, 25-26 March 2013, pp. 135-140, Tirunelveli, Tamil Nadu ,India.
- [2] M. Behera, **A. B. Sahoo**, B. R. Behera , H. Pradhan, , and B. B. Mangaraj, "Optimum Design of Mutually Coupled Linear Array Antenna and Comparison with Different Types of Array Structures" *International conference on Communication and Signal Processing*, 3-5 April 2013, pp. 39-43, Melmaruvathur, Tamil Nadu ,India.
- [3] M. Behera, **A. B. Sahoo**, H. Pradhan, , and B. B. Mangaraj, "Performance Comparison of PSO Optimized Mutually Coupled Linear Array Antenna with Yagi-Uda Antenna" *IEEE Conference on Information and Communication Technologies*, 11-12 April 2013, pp. 718-723, Thuckalay, Tamil Nadu ,India.
- [4] **A. B. Sahoo**, S. K. Jha, M. R. Jena and S. K. Mohanty, "Optimization of circular patch antenna at 5GHz using Firefly Algorithm" *International Conference on Communication Systems and Network Technologies*, 4-6 April 2015, pp. 64-67, Gwalior, Madhya Pradesh,India.
- [5] M. Kumar, **A. B. Sahoo**, R. Sao, and B. B. Mangaraj, "Optimization of Rectangular Patch Antenna at 5GHz using Bat Search Algorithm" *International Conference on Communication Systems and Network Technologies*, 4-6 April 2015, pp. 68-72, Gwalior, Madhya Pradesh,India.
- [6] **A. B. Sahoo**, A. Biswal, C. K. Sahu, J. C. Dash, and B. B. Mangaraj, "Design of Multi-band Rectangular Patch Antennas using Defected Ground Structure (DGS)," *IEEE International Conference on Recent Trends in Electronics Information & Communication Technology (RTEICT)*, 19-20 May 2017, pp. 1183- 1187, Bangalore, India.
- [7] **A. B. Sahoo**, B. B. Mangaraj, T. S. Nag, and K. Soni, "Application of Gravitational Search Algorithm in Optimization of Microstrip Antenna at 5 GHz," *IEEE International Conference on Man and Machine Interfacing (MAMI)*, 21-23 December 2017, pp. 1- 4, Bhubaneswar, India.
- [8] **A. B. Sahoo**, B. B. Mangaraj, K. Saurav, L. S. M. D. Sahoo, "Design and Analysis of Swastika-Slot Circular Patch Antenna For WLAN and WiMAX Applications," *International Conference on Electronics, Materials Engineering & Nano-Technology (IEMENTech 2018)*, 4-5 May, 2018, pp. 1-4, Kolkata, India.

- [9] **A. B. Sahoo**, N. Patnaik, A. Ravi, S. Behera and B. B. Mangaraj, "Design of a Miniaturized Circular Microstrip Patch Antenna for 5G Applications," 2020 International Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE), Vellore, India, 2020, pp. 1-4, doi: 10.1109/ic-ETITE47903.2020.374.
- [10] **A. B. Sahoo**, S. Sahu, R. Sahoo, S. Sahu and B. B. Mangaraj, "Miniaturized Microstrip Patch Antenna Design using Metamaterial," 2021 5th International Conference on Computer, Communication and Signal Processing (ICCCSP), 2021, pp. 1-4, doi: 10.1109/ICCCSP52374.2021.9465509.
- [11] **A. B. Sahoo**, N. Singh and B. B. Mangaraj, "Design of an Arc-Shaped Slot Circular Patch Antenna for 5G Applications," 2023 1st International Conference on Circuits, Power and Intelligent Systems (CCPIS), Bhubaneswar, India, 2023, pp. 1-4, doi: 10.1109/CCPIS59145.2023.10291475.

## ANY OTHER

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Book Chapter  
Conferences attended