Dr. Naga Raju Challa

Assistant Professor

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Biography

Dr. Naga Raju Challa received the B.Tech degree in Electronics and Control Engineering from Prasad. V. Potluri Siddhartha Institute of Technology, Vijayawada, A.P in 2009, M.E Degree in Embedded Systems from Sathyabama University, Chennai in 2012, And Ph.D. degree in School of Electronics Engineering, Vellore Institute of Technology, Vellore, India in April 2021. Currently, he is working as an Assistant Professor in the Department of Electronics and Communication Engineering at Bapatla Engineering College, Bapatla from 2022. His main research interests are in the areas of Massive MU–MIMO, Wireless Communication, Machine Learning, Deep Learning in Wireless Communication, and Artificial Intelligence.

Awards & Honors

1. **Event Coordinator:** A Five Day Faculty Development Program on **"Applications *of Deep Learning Techniques to 5G Wireless Communication Technologies*"** held at Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, during 8-12 February 2022.
2. **Organizing Committee Member**: The IEEE International Conference on "***Vision towards Emerging Trends in Communication and Networking 2019 (ViTECoN' 19)***" will be held at Vellore Institute of Technology, Vellore, India, during March 30-31, 2019.

Selected Publications

1. Design of Large Scale MU-MIMO System with Joint Precoding and Detection Schemes for Beyond 5GWireless Networks, ***Wireless Personal Communications***, July 2021. https://doi.org/10.1007/s11277-021-08688-6 (Springer, Impact factor **1.671**).
2. Design of near-optimal local likelihood search-based detection algorithm for coded large-scale MU-MIMO system, ***International Journal of Communication Systems***, April 2020. DOI: https://doi.org/10.1002/dac.4436. (Wiley, Scopus Indexed, Impact Factor: **1.319**).
3. Likelihood ascent search detection for coded massive MU-MIMO systems to mitigate IAI and MUI, ***Radioelectronics and Communications Systems***, Vol. 63, no. 5, pp. 223-234, May 2020. DOI: 10.3103/S0735272720050015. (Springer, Scopus Indexed, Impact Factor: **0.167**).

4. Design of Massive Multiuser MIMO System to Mitigate Inter Antenna Interference and Multiuser Interference in 5G Wireless Networks, ***Journal of Communications***, vol. 15, no. 9, pp. 693-701, September 2020. DOI: 10.12720/jcm.15.9.693-701. (JOCM, **Scopus Indexed**).
5. Lattice Reduction Assisted Likelihood Ascent Search Algorithm for Multiuser Detection in Massive MIMO System, ***INDICON 2018 - 15th IEEE India Council International Conference***, December 2018. DOI: 10.1109/INDICON45594.2018.8987139. (IEEE, **Scopus Indexed**).
6. Lenstra-Lenstra-Lovász (LLL) Assisted Likelihood Ascent Search (LAS) Algorithm for Signal Detection in Massive MIMO, ***2019 International Conference on Vision Towards Emerging Trends in Communication and Networking (ViTECoN),*** March 2019. DOI: 10.1109/ViTECoN.2019.8899594. (IEEE, **Scopus Indexed**).