**MANCHARLA RAVI**

Ph.D. Thesis submitted, Dept. of Electronics and Communication Engineering.

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**Objective:** To evolve into a hardworking and sincere professional, contributing to the success of the organization, society and at the same time enhance my knowledge and develop my communication, managerial and interpersonal skills**.**

## Achievements:

* **GATE** –Qualified in **2019**
* **UGC-NET** (Ass. Professor) –Qualified in **2019**

## Educational Qualification:

* **PhD** ( **Optimum resource allocation in MIMO-NOMA using different suitable techniques**) – pursuing in **Dept. of Electronics and Communication Engg**, **NIT Arunachal Pradesh**, India from **July, 2019** with **8.65 CGPA**
* **M.Tech** (**Electronics and Communication Engg,** ) from **JNTU Hyderabad**, India in **2015** with **76%**
* **B.Tech** (**Electronics and Communication Engg,**) from **JNTU Hyderabad**, India in **2012** with **67.58%**
* **Intermediate** (**Math’s, Physic and chemistry**)from **Government Junior college**, Andhra pradesh, India in **2008** with **85.40 %**
* **S.S.C** from **Government high** **school**. Bhadrachalam, Telangana in **2006** with **75.30 %**

**Area of Interest:**

* MIMO, NOMA, Cell-free network,IOT,5G communications and Deep learning,
* **Technical Skills:**
* **C/ C++, and Python**
* **5G NR protocols**
* **4G and 5G core network evaluation.**
* MATLAB,
* Deep learning and Verilog coding
* **Theoretical knowledge:**
* Data structures, Computer organization & Architectures
* Basics of Material Science, Project Management and Ethics values in Engineering **Projects:**
* **ENCRYPTION AND DECRYPTION OF DATA USING IMAGE AND VIDEO PROCESSING**
* Description: The date is converted in to test message and images then again converted back to original using image video processing.
* **SMS NOTICE BOARD USING ZIGBEE AND TOUCH SCREEN**
* **Description:** cooperative cache can improve the system performance in wireless networks such as it display the information on the notice board. However, all these studies are at a very high level, leaving many design and implementation issues unanswered. In this paper, we present our design and implementation of cooperative cache in wireless networks.

**Publications:**

* **M. Ravi & Bulo. Y,** “An Investigation of the Optimum Power Allocation Technique in the MIMO-NOMA Network with the Deep Neural Network and Depth Limited Search Algorithm”, IETE Journal of Research, Vol. 1, no-11, 2023. https://doi.org/10.1080/03772063.2023.2169777
* **Ravi. M, Ali Tasher. S and Yaka. B, “**Energy Efficiency and Resource Allocation Optimization with MIMONOMA and Backhaul Beam-Forming in User-Centric Ultra-Dense Networks”, International Journal of Sensors, Wireless Communications and Control, 12(7), pp. 510-520,2022.
* **Ravi. M, Ali Tasher. S and Yaka. B, “**Throughput and error probability improvement in Downlink Communication based on MIMO-NOMA using Reconfigurable intelligent Surface (RIS)”, International Journal of Communication Systems (IJCS), Wiley (Accepted).
* **Ravi. M, Ali Tasher. S and Yaka. B, “**Improved Energy Efficiency and Minimized BER with MIMO-NOMA and Max-Min Power Control Technique”,  Internal journal of systems, communication and control (IJSCC) ,(Accepted ).
* **M. Ravi , Tasher Ali Sheikh and Yaka Bulo**, “Optimal Resource Allocation and Data Communication in 5G and Beyond with a Cell-free IoTs Systems”, IEEE COMSOC MMTC Communications Frontiers,Vol.17, No.6, Nov’ 2022.
* **R. Mancharla and Y. Bulo,** "A Comparative Analysis of the various Power Allocation Algorithm in NOMA-MIMO Network Using DNN and DLS Algorithm", EAI Endorsed Transactions on Mobile Communications and Applications, vol.7, no.2, pp. e3, 2022.

**Conference Published:**

* **M. Ravi & Bulo. Y, “** Improve Throughput and spectrum efficiency using Cell –Free MIMO-NOMA network with user–centric clustering”, 4th national conference on communication systems ,NIT Puduchery, India,2022 (Accepted and presented).
* **M. Ravi & Bulo. Y, “**Comparative study on the NOMA based optimum power allocation using DLS algorithm with DNN”, 3rd International conference on advances in information communication technology and computing (AICTC), 2022, https://doi.org/10.1007/978-981-19-0619-0\_16
* **M. Ravi & Bulo. Y, “**Modified Aggressive Packet Combining Scheme with Repetition Code for Throughput Enhancement in High Error Rate Channel”, 1st International conference on electronics systems and intelligent computing (ESIC), 2020, https://doi.org/10.1007/978-981-15-7031-5\_21

**Experience:**

* Worked as an assistant professor at Progressive Engineering, Hydrabad, from **2014 to 2015 .**
* Worked as an assistant professor in Ellenki Institute of Technology, Hyderabad, from **2015 to 2017.**
* Prepared for IES examinations, from **2018 to 2019 .**

**Workshop Attended:**

* MATLAB Project Course on Massive MIMO, NOMA, mm wave and Cooperative networks for 5G in IIT Kanpur, organized by the Prof.Aditya Jaganatham, 2019.
* MATLAB Project Course on Massive MIMO, Cooperative Networks, Cognitive Radio for 5G in Vishakhapatnam, organized by the Prof.Aditya Jaganatham, 2020.
* Attended for 10 plush Workshops based on 5G and IOT.