

Dr. Amna Shabbir

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Profile

Accomplished educator with demonstrated ability to teach, motivate, and direct students while maintaining high interest and achievement. Articulate communicator able to effectively interact with diverse populations of students at a variety of academic levels. Consistently maintain excellent relations with students, parents, faculty, and administrators. Self-motivated with strong planning, organizational, and leadership skills.

Academics

Post-Doctoral Research Fellow

Majors: Wireless Communication
Multimedia University, Malaysia

In progress

PhD

Majors: Wireless Networks Engineering
NED University of Engineering & Technology, Karachi

May 2019

Masters in Engineering

Majors: Communication Engineering
NED University of Engineering & Technology, Karachi

Dec 2009

Bachelors in Engineering

Majors: Telecommunications
NED University of Engineering & Technology, Karachi

Dec 2006

Professional Experience

Assistant Professor

Electronic Engineering Department
NED University of Engineering & Technology, Karachi

July 2019-Till date

Lecturer

Electronic Engineering Department
NED University of Engineering & Technology, Karachi

July 2007 – June 2019

Technical Knowledge Engineer

Etilize Pakistan

Jan 2007 – June 2007

Research Publications

1. Hashmi, Shahzad Azam, **Amna Shabbir**, Syed Agha Hassnain Mohsan, Myriam Hadjouni, and Samih M. Mostafa. "Parametric Classification of Furniture from Point Cloud Developed using Low Cost Trolley based Laser Scanning System." *IEEE Access* (2023) **(IF:3.47)**
2. Hasan, Naureen, Safdar Rizvi, and **Amna Shabbir**. "A Clustered PD-NOMA in an Ultra-Dense Heterogeneous Network with Improved System Capacity and Throughput." *Applied Sciences* (2022) **(IF:2.838)**
3. Muhammed Ali Akhtar, **Amna Shabbir**, Najmi G.Haider ,Maria Andleeb, Syed Abbas Ali, Safdar Rizvi, "Virtual Reality in Gymnasium: Stationary bike using Hall-Effect Sensor and Bluetooth BLE", *IJCSNS International Journal of Computer Science and Network Security*, VOL.22 No.5, May 2022 **(ISI Indexed)**
4. N.Farhan, S.Rizvi, **Amna Shabbir**, I.Memon, "Clustering Approaches for Efficient Radio Resource Management in Heterogeneous Networks' *VFAST Transactions on Software Engineering* Vol 9, No 3. 2021. **(ISI Indexed)**
5. M. Azhar, **Amna Shabbir**, "5G Networks: Challenges and Techniques for Energy Efficiency", *Engineering, Technology & Applied Science Research journal*, Vol.8, No. 1. 2018. **(ISI Indexed)**
6. M. Azhar, **Amna Shabbir**, 'A Traffic Variation Aware Approach For Energy Efficient Heterogeneous Cellular Networks', *ICE(TE)*², Feb 2018, *Electronic Engineering NEDUET*.
7. **Amna Shabbir**, HR Khan, SA Ali, A Traffic Load-Aware Approach for Optimum Throughput in 5G Heterogeneous Cellular Networks. *IEEE, ICCOINS, Malaysia* August 2018.
8. **Amna Shabbir**, HR Khan, SA Ali, S. Rizvi, 'Design and Performance Analysis of Multitier Heterogeneous Network through Coverage, Throughput and Energy Efficiency" *ETASR Journal* Vol. 7, No. 6. 2017. **(ISI Indexed)**
9. **Amna Shabbir**, HR Khan, SA Ali, 'Outage analysis of two-tier heterogeneous cellular network with sleep strategies' *Circuits, System, and Simulation (ICCSS)*, *IEEE, London*, July 2017.
10. **Amna Shabbir**, HR Khan, SA Ali, S Rizvi, 'A Stochastic Geometrical Approach for Performance Analysis of Heterogeneous Cellular Network' *International Journal of Computer Science and Information Security*, Aug 2016, volume 14, issue 8, pp467-475. **(ISI Indexed)**
11. S. Rizvi, **Amna Shabbir**, Asif Aziz, S Rizwan Ali, Ghulam Muhammad, Shujaat H Butt, 'A Proactive RSS Based Vertical Handoff Protocol for Next Generation Wireless Heterogeneous Network', Sept 2016, *IJCSIS*, Vol 14, issue 9. **(ISI Indexed)**
12. Attaullah Khawaja, **Amna Shabbir** "Sum Capacity with Regularized Channel Inversion in Multiantenna Downlink Systems under Equal Power Constraint" *International Journal of Computer and Information Engineering* Vol:2, No:1, 2015.
13. **Amna Shabbir**, Ali Yasir, "Improving space Time Diversity in a Fixed Point Link Using LMS Based Interference Cancellers", *Digital Content, Multimedia Technology and its Applications (IDC)*, *IEEE, Seoul, Korea*, 08-10 August 2010.

Administrative Assignments

- Core Member Programme team for Outcome Base Education (OBE) implementation and execution
- Member Programme Team for development of Departmental Self-Assessment Report (SAR)
- In charge PLC Lab (2007-2015)
- In charge Industrial and Power Electronic Lab (2016-2017)
- In charge PhD Lab (2022-Til date)
- In charge Girls Affairs Society (2022-Till date)
- Member FYP Steering Committee (2021-Till date)
- Class Advisor, Final Year Electronic Engineering (2009-2012)
- Faculty In-charge, Career Expo

Tools And Software

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| • MATLAB (Advanced) | • EndNote (Advance) |
| • AGS (Intermediate) | • LaTeX (Basic) |
| • LabView (Intermediate) | • MS Visio (Advance) |
| • C (Intermediate) | • MS Word, MS PowerPoint and MS Excel (Advance) |

Courses Taught

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| • Basic Electronics | • Communication Systems-I |
| • Electronic Devices and Circuits | • Communication Systems-II |
| • Amplifier and Oscillators | • Opto-Electronics and Microwave Engineering |
| • Fundamentals of telecommunications | • Fundamentals of Computer Engineering |
| • Digital Signal Processing | • Programming Languages |
| • Matlab and Simulink | • Antenna and Microwave Engineering |