Murk Marvi

Assistant Professor
Department of Computer Science and Information Technology,
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Education

Ph.D., Computer Systems Engineering (3.7 CGPA), Computer and Information Systems Engineering Department, NED University of Engineering & Technology, Pakistan, 2020.

M.E., Communication Systems and Networks (3.7 CGPA), Mehran University of Engineering and Technology, Pakistan, 2015.

B.E., Telecommunication (Second position-84%), Mehran University of Engineering and Technology, Pakistan, 2012.

Experience

Assistant Professor; Department of Computer Science and Information Technology, NED UET, from July 2022 to present.

Assistant Professor; NUCES-FAST, Karachi Campus, from August 2021 to June 2022.

Research Associate; National Center for Cyber Security, NED UET, from May 2019 to July 2021.

Visiting Faculty Member for Postgraduate; Department of Computer Science and Information Technology, NED UET; from November 2019 to March 2020; from November 2020 to March-2021; from May 2021 to October 2021.

Lecturer; NUCES-FAST, Karachi campus, from December 2016 to Jun 2017.

Senior Research Assistant; Koshish Foundation Research Lab, NED UET, from February 2015 to September 2016.

Research Assistant; National ICT Outreach Program, Mehran UET, March-August 2012

Courses Taught so far

1. Programming Fundamentals
2. Theory of Programming Languages
3. Tools and Techniques for Data Science
4. Deep Learning
5. Mathematics for Artificial Intelligence
6. Digital Logic Design

Achievements/Awards

1. Recipient of merit scholarship for Ph.D from NED UET and HEC, 2016.
2. Recipient of merit scholarship during under graduation 2008-2011.
3. Secured top positions in academic career.

Other Activities

- Serving as an active reviewer in the following peer reviewed journals,
  1. IEEE Internet of Things
  2. IEEE Transactions on Network and Service Management
  3. PloS One
  4. IEEE Access
- Supervising undergraduate and postgraduate students

Publications

Peer-Reviewed Journal Publications

1. **Murk Marvi,** A. Aijaz, and M. Khurram, "Integrating stochastic geometry and ON/OFF traffic models: Toward spatio-temporal analysis of wireless networks with heterogeneous services", IEEE Transactions on Network Science and Engineering, February 2022.
2. **Murk Marvi,** A. Arfeen, M. R. Mehdi, and Z. Rauf, "Investigating the impact of regional temperature on COVID-19 pandemic during 2020", Sustainability, May 2021.
3. A. Qureshi, **Murk Marvi,** J. A. Shamsi, and A. Aijaz, "eUF: A framework for detecting over-the-air malicious updates in autonomous vehicles", Journal of King Saud University – Computer and Information Sciences, May 2021.
4. **Murk Marvi,** A. Arfeen, and R. Uddin, "An augmented K-means clustering approach for the detection of DDoS attacks", International Journal of Network Management, April 2021.
5. **Murk Marvi,** A. Aijaz, and M. Khurram, "Toward an automated data offloading framework for multi-RAT 5G wireless networks", IEEE Transactions on Network and Service Management, Vol. 17, No. 4, 2020.
6. **Murk Marvi,** A. Arfeen, and R. Uddin, "A generalized machine learning-based model for the detection of DDoS attacks", International Journal of Network Management, December 2020.
7. **Murk Marvi,** A. Aijaz, and M. Khurram, "On the use of ON/OFF traffic models for spatio-temporal analysis of wireless networks", IEEE Communication Letters, Vol. 23, No. 7, 2019.
8. **Murk Marvi,** A. Aijaz, and M. Khurram, "Toward a unified framework for analysis of multi-RAT heterogeneous wireless networks", Wireless Communications and Mobile Computing, 2019.
9. M. Awais, **Murk Marvi**, S. S. Zaidi, and M. Khurram, "A cost effective solution for IoT enabled ultrasonic anemometer sensor design", NED Journal of Research, 2019.
10. **Murk Marvi** and M. Khurram, "Theoretical insights into coverage analysis of cellular networks", Sukkur IBA Journal of Computing and Mathematical Sciences (SJCMS), Vol. 1, No. 2, 2017.
11. M. Awais, S. S. A. Zaidi, **Murk Marvi,** M. Khurram, "A remotely deployable wind sonic anemometer", Sukkur IBA Journal of Computing and Mathematical Sciences (SJCMS), Vol. 1, No. 2, 2017.
12. A. Qureshi, **Murk Marvi**, F. A. Umrani, B. S. Chowdhry, and A. Q. K. Rajput, "Center of mass of earth through mass balancing and torque balancing latitude: An analysis", New Horizons, Journal of the Institution of Electrical and Electronics Engineers Pakistan (IEEEP), Vol. 76, pp. 25 – 26, 2012.
13. A. Qureshi, **Murk Marvi**, and F. A. Umrani, "Locating center of mass of earth and GEO-stationary satellites", Mehran University Research Journal of Engineering & Technology, Vol. 33, No.4, pp. 381-387, 2014.

Conference Publications

1. R. Jafri, **Murk Marvi**, L. Zaman, and M. Khurram, "IoT enabled solution for monitoring health of crops", 1st International Conference on Innovations in Computer & Software Engineering (ICONICS'2016).
2. A. Qureshi**, Murk Marvi**, M. A. Unar and F. A. Umrani, "Performance analysis of skin classifiers in RGB and YC_bC_r color space", 17th International multi-topic Conference 2014, Bahria University Karachi, Pakistan.