

Faculty CV Template

Dr. Raja Wasim Ahmad

Academic Rank

Assistant Professor

Qualifications

- PhD, University of Malaya, Malaysia.
- MS(CS), COMSATS University, Pakistan.
- BS(CS) Hons, University Of AJ & K, Pakistan.

Research field(s)

- Blockchain
- Cloud Computing
- Mobile Computing
- IoT

Publications

- ur Rehman, Z., Fatima, M., Khan, A., Shah, S., Wasim Ahmad, Raja, Din, A., & Rehman, A. (n.d.). Ennergy optimization in a smart community grid system using Genetic algorithm. *International Journal of Communication Systems*, e4265.
- Ahmad, R. W., Al Khader, W., Jayaraman, R., Salah, K., Antony, J., & Swarnakar, V. (2022). Integrating lean six sigma with blockchain technology for quality management—a scoping review of current trends and future prospects. *The TQM Journal*, (ahead-of-print).
- Ahmad, Raja Wasim, Salah, K., Jayaraman, R., Yaqoob, I., & Omar, M. (2022). Blockchain in oil and gas industry: Applications, challenges, and future trends. *Technology in Society*, 68, 101941.
- Bashir, S., Mustafa, S., Ahmad, R. W., Shuja, J., Maqsood, T., & Alourani, A. (2022). Multi-factor nature inspired sla-aware energy efficient resource management for cloud environments. *Cluster Computing*, 1–16. 5
- Khan, A. U. R., & Ahmad, R. W. (2022). A blockchain-based iot-enabled e-waste tracking and tracing system for smart cities. *IEEE Access*, 10, 86256–86269. 6
- Shafay, M., Ahmad, Raja Wasim, Salah, K., Yaqoob, I., Jayaraman, R., & Omar, M. (2022). Blockchain for deep learning: Review and open challenges. *Cluster Computing*, 1–25. 7

- Ahmad, Raja Wasim, Salah, K., Jayaraman, R., Yaqoob, I., Ellahham, S., & Omar, M. (2021). The role of blockchain technology in telehealth and telemedicine. *International Journal of Medical Informatics*, 104399. 8
- Ahmad, Raja Wasim, Salah, K., Jayaraman, R., Yaqoob, I., & Omar, M. (2021a). Blockchain for waste management in smart cities: A survey. *IEEE Access*, 22.
- Ahmad, Raja Wasim, Salah, K., Jayaraman, R., Yaqoob, I., & Omar, M. (2021b). Blockchain in oil and gas industry: Applications, challenges, and future trends. 10
- Khalid, T., Abbasi, M. A. K., Zuraiz, M., Khan, A. N., Ali, M., Ahmad, Raja Wasim, . . . Aslam, M. (2021). A survey on privacy and access control schemes in Fog computing. *International Journal of Communication Systems*, 34(2), e4181. 11
- Pratyush Kumar, P., Ahmad, Raja Wasim, Salah, K., Yaqoob, I., Jayaraman, R., & Omar, M. (2021). Blockchain based solution for product recall management in the automotive supply chain. *IEEE Access*. 12
- Al-Saif, N., Ahmad, Raja Wasim, Salah, K., Yaqoob, I., Jayaraman, R., & Omar, M. (2021). Blockchain for electric vehicles energy trading: Requirements, opportunities, and challenges. *IEEE Access*. 13
- Shafay, M., Ahmad, Raja Wasim, Salah, K., Yaqoob, I., Jayaraman, R., & Omar, M. (2021). Blockchain for deep learning: Review and open challenges. *Cluster Computing*.
- Ahmad, Raja Wasim, Salah, K., Jayaraman, R., Yaqoob, I., Ellahham, S., & Omar, M. (2020). Blockchain and COVID-19 pandemic: Applications and challenges. *IEEE TechRxiv*.
- Hasan, H. R., Salah, K., Jayaraman, R., Ahmad, Raja Wasim, Yaqoob, I., & Omar, M. (2020). Blockchain based solution for the traceability of spare parts in manufacturing. *IEEE Access*, 8, 100308–100322.
- Khan, M. K., Shuja, J., Jararweh, Y., Yu, G., Guizani, M., Verikoukis, C., & Ahmad, Raja Wasim. (2020). *IEEE access special section editorial: Mobile edge computing and mobile cloud computing: Addressing heterogeneity and energy issues of compute and network resources*. *IEEE Access*, 8, 163769–163774.
- Rehman, F., Khalid, O., Haq, N. u., Maqsood, T., Ali, M., Ahmad, Raja Wasim, . . . Madani, S. A. (2020). A scalable model for real-time venue recommendations using mapreduce. *Concurrency and Computation: Practice and Experience*, 32(21), e5597.
- Ahmad, Raja Wasim, Naveed, A., Rodrigues, J. J., Gani, A., Madani, S. A., Shuja, J., . . . Saeed, S. (2018). Enhancement and assessment of a code-analysis-based energy estimation framework. *IEEE Systems Journal*, 13(1), 1052–1059.
- Ahmad, Raja Wasim, us Shan, R., Bilal, K., Shuja, J., Sarwar, S., Altameem, T. A., Madani, S. A. et al. (2018). An investigation of video communication over bandwidth limited public safety network. *Malaysian Journal of Computer Science*, 31(2), 85–107. 20 Ali, J., Ahmad, Raja Wasim, Maqsood, T., Rodrigues, J. J., Ul Haq, N., Sarwar, S., . . . Madani, S. A. (2018). Network selection in heterogeneous access networks simultaneously satisfying user profile and QoS. *International Journal of Communication Systems*, 31(13), e3730.
- Ibrahim, F. I., Nasir, M. H. N. M., Ab Hamid, S. H., Ahmad, Raja Wasim, & Iqbal, J. (2018). FSI DRIVEN ENERGY: Mitigating smartphone energy consumption using fuzzy inference. *Malaysian Journal of Computer Science*, 33(3), 188–201.
- Irshad, T., Shan, R.-u., Ahmad, Raja Wasim, Khalid, A., & Ab Hamid, S. H. (2018). MULTI-RAT-based adaptive quality of service (QOS) management in wban. *Malaysian Journal of Computer Science*, 33(4), 252–269.

- Rathore, M. M. U., Gul, M. J. J., Paul, A., Khan, A. A., Ahmad, Raja Wasim, Rodrigues, J., & Bakiras, S. (2018). Multilevel graph-based decision making in big scholarly data: An approach to identify expert reviewer, finding quality impact factor, ranking journals and researchers. *IEEE Transactions on Emerging Topics in Computing*.
- Rehman, A., Rathore, M. M., Paul, A., Saeed, F., & Ahmad, Raja Wasim. (2018). Vehicular traffic optimization and even distribution using ant colony in smart city environment. *IET Intelligent Transport Systems*, 12(7), 594–601.
- Ahmad, Raja Wasim, Bashir, R. S., Saeed, S., Lee, Y., Ko, K., & Son, Y. (2017). Online cloud-based battery lifetime estimation framework for smartphone devices. *Procedia Computer Science*, 110, 70–77
- Ahmad, Raja Wasim, Gani, A., Ab Hamid, S. H., Naveed, A., Ko, K., & Rodrigues, J. J. (2017). A case and framework for code analysis-based smartphone application energy estimation. *International Journal of Communication Systems*, 30(10), e3235.
- Ahmad, Raja Wasim, Gani, A., Hamid, S. H. A., Shojafar, M., Ahmed, A. I. A., Madani, S. A., . . . Rodrigues, J. J. (2017). A survey on energy estimation and power modeling schemes for smartphone applications. *International Journal of Communication Systems*, 30(11), e3234.
- Shuja, J., Ahmad, Raja Wasim, Gani, A., Ahmed, A. I. A., Siddiq, A., Nisar, K., . . . Zomaya, A. Y. (2017). Greening emerging IT technologies: Techniques and practices. *Journal of Internet Services and Applications*, 8(1), 1–11.
- Shuja, J., Mustafa, S., Ahmad, Raja Wasim, Madani, S. A., Gani, A., & Khan, M. K. (2017). Analysis of vector code offloading framework in heterogeneous cloud and edge architectures. *IEEE Access*, 5, 24542–24554.
- Sobral, J. V., Rodrigues, J. J., Kumar, N., Zhu, C., & Ahmad, Raja W. (2017). Performance evaluation of routing metrics in the LOADNG routing protocol. *Journal of Communications Software and Systems*, 13(2), 87–95.
- Syed, H. J., Gani, A., Ahmad, Raja Wasim, Khan, M. K., & Ahmed, A. I. A. (2017). Cloud monitoring: A review, taxonomy, and open research issues. *Journal of Network and Computer Applications*, 98, 11–26.
- Yeow, K., Gani, A., Ahmad, Raja Wasim, Rodrigues, J. J., & Ko, K. (2017). Decentralized consensus for edge-centric Internet-of-Things: A review, taxonomy, and research issues. *IEEE Access*, 6, 1513–1524.
- Khan, S. U. R., Lee, S. P., Ahmad, Raja Wasim, Akhuzada, A., & Chang, V. (2016). A survey on test suite reduction frameworks and tools. *International Journal of Information Management*, 36(6), 963–975.
- Liaqat, M., Ninoriya, S., Shuja, J., Ahmad, Raja Wasim, & Gani, A. (2016). Virtual machine migration enabled cloud resource management: A challenging task. *arXiv preprint arXiv:1601.03854*.
- Shuja, J., Gani, A., Shamshirband, S., & Ahmad, Raja Wasim and Bilal, K. (2016). Sustainable cloud data centers: A survey of enabling techniques and technologies. *Renewable and Sustainable Energy Reviews*, 62, 195–214.
- Yousafzai, A., Gani, A., Noor, R. M., Naveed, A., Ahmad, Raja Wasim, & Chang, V. (2016). Computational offloading mechanism for native and android runtime based mobile applications. *Journal of Systems and Software*, 121, 28–39.
- Ahmad, Raja Wasim, Gani, A., Hamid, S. H. A., Shiraz, M., Xia, F., & Madani, S. A. (2015). Virtual machine migration in cloud data centers: A review, taxonomy, and open research issues. *The Journal of Supercomputing*, 71(7), 2473–2515.



- Ahmad, Raja Wasim, Gani, A., Hamid, S. H. A., Xia, F., & Shiraz, M. (2015). A review on mobile application energy profiling: Taxonomy, state-of-the-art, and open research issues. *Journal of Network and Computer Applications*, 58, 42–59.
- Ahmad, Raja Wasim and Gani, A., Hamid, S. H. A., Shiraz, M., Yousafzai, A., & Xia, F. (2015). A survey on virtual machine migration and server consolidation frameworks for cloud data centers. *Journal of Network and Computer Applications*, 52, 11–25.
- Shiraz, M., Gani, A., Shamim, A., Khan, S., & Ahmad, Raja Wasim. (2015). Energy efficient computational offloading framework for mobile cloud computing. *Journal of Grid Computing*, 13(1), 1–18.
- Shiraz, M., Gani, A., Ahmad, Raja Wasim, Shah, S. A. A., Karim, A., & Rahman, Z. A. (2014). A lightweight distributed framework for computational offloading in mobile cloud computing. *PloS one*, 9(8), e102270.
- Salah, K., Alfalasi, A., Alfalasi, M., Alharmoudi, M., Alzaabi, M., Alzyeodi, A., & Ahmad, RW. (2020). IoT-enabled shipping container with environmental monitoring and location tracking. In *2020 IEEE 17th Annual Consumer Communications & Networking Conference (CCNC)* (pp. 1–6). IEEE.
- Ahmad, Raja Wasim, Ab Hamid, S. H., Gani, A., Obaidat, M. S., Shuja, J., Rehman, F., & Khan, A. U. R. (2018). Performance assessment of dynamic analysis based energy estimation tools. In *2018 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS)* (pp. 1–12). IEEE.
- Bashir, R. S., Lee, S. P., Yung, C. C., Alam, K. A., & Ahmad, Raja Wasim. (2017). A methodology for impact evaluation of refactoring on external quality attributes of a software design. In *2017 International Conference on Frontiers of Information Technology (FIT)* (pp. 183–188). IEE

Courses Taught (Last five years)

- Fundamentals of Computer Communication and Networking
- Network Design and Management
- Network Operating Systems
- Data Structures
- Wireless and Mobile Computing
- Fundamentals of Web Systems
- Advanced Computer Networks
- Advanced topics in Computer Networks
- Advances Topics in Operating Systems
- Operating System Concepts
- Object Oriented Programming

Professional Experience

- Assistant Professor in Department of IT at Ajman University, Ajman, UAE. Core Responsibilities (2022-till date)
- Post Doctoral Research Fellow in Department of Electrical Engineering and Computer Science at Khalifa University of Science and Technology, Abu Dhabi, UAE (2019-2022)



- Assistant Professor in Department of Computer Science at COMSATS University Islamabad (CUI), Abbottabad Campus, Pakistan. (2017-2019)
- Research Assistant and Ph.D. Scholar in Department of Computer Science and Information Technology at University of Malaya, Malaysia (2013-2017)
- Lecturer in Department of Computer Science at COMSATS University Islamabad (CUI), Abbottabad Campus, Pakistan (2011-2013)

Committees Work

- Evaluator for Undergraduate Projects, Ajman University, UAE, 2021-2022.
- Evaluator for MS projects, Ajman University, UAE, 2021-2022
- Member Peer tutoring program, Ajman University.
- Member Speed programming competition committee, Ajman University.

Honors and Awards

- Won Best Paper Award in International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS 2018), Bordeaux, France
- Won Research Productivity Award at COMSATS University Islamabad (2017, 2018, and 2019) [Cash Prize and Certificates].
- Won Best Paper Presentation Award (PGRes Research Symposium 2015) [Cash Prize and Certificates].
- Won Pak-HEC's Research Initiation Grant of PKRS 0.5 Million (Co-PI). [2017]
- Bright Spark Scholarship Award (like US Full Bright Scholarship), University of Malaya
- Won Merit Scholarship Award for MS in Computer Science.
- Awarded Graduate-on-Time (GoT) Award by University of Malaya.

Other Contributions and Achievements

- Associate Technical Editor, Cluster Computing Journal
- Guest Editor, IEEE Access
- Guest Editor, Applied Sciences
-