

## Dr. Syed Roohullah Jan

Department of Computer Sciences, Garden Campus, AWKUM, Mardan, KPK, Pakistan.

E-mail: [roohullahsyed@awkum.edu.pk](mailto:roohullahsyed@awkum.edu.pk) -

Phone: (+92) 3109212277



---

### RESEARCH INTERESTS

Wireless Sensor Networks, Performance optimization, data aggregation, QoS, Security and energy-efficiency, Internet of Things, Internet of Vehicles.

### EDUCATION

**Abdul Wali Khan University**, Mardan, KPK, Pakistan.

- PhD (2021)
  - Topic: Energy-efficient Data Aggregation for Cluster-based Wireless Sensor Networks
- Advisor: Dr. Mian Ahmad Jan

**University of Bedfordshire**, UK.

- Master of Computer Science – Computer Networking, Department of Computer Science and Information System (2007)

**University of Bedfordshire**, UK.

- BSc (Hons), Computer Science- Computer Networking, Department of Computer Science (2006)
- **Specialized Software:** MATLAB, OPNET, OMNET, ModelSim, MS Visio.
- **Programming Languages:** MATLAB, C++, C, HTML, LATEX
- **Languages:** Pashtu: Native, Urdu: Fluent, English: Fluent

### PUBLICATIONS

#### Published Papers

- **Syed Roohullah Jan**, Rahim Khan, Fazlullah Khan, Mian Ahmad Jan, Mohamamd Dahman Alshehri, Venki Balasubramaniam, and Paramjit S. Sehdev. "**Marginal and average weight-enabled data aggregation mechanism for the resource-constrained networks.**" *Computer Communications* 174 (2021): 101-108.
- Muhammad Ibrar, Aamir Akbar, **Syed Roohullah Jan**, Mian Ahmad Jan, Lei Wang, Houbing Song, and Nadir Shah. "**ARTNet: AI-based resource allocation and task offloading in a reconfigurable internet of vehicular networks.**" *IEEE Transactions on Network Science and Engineering* (2020).
- **Syed Roohullah Jan**, M.A. Jan, Rahim Khan, Hakeemullah, M.Alam, and M.Usman. "**An energy-efficient and congestion control data-driven approach for cluster-based sensor network.**" *Mobile Networks and Applications*, 24.4 (2019): 1295-1305.
- T. Han, **Syed Roohullah Jan**, Z. Tan, M.Usman, M.A Jan, Rahim Khan, and Y Xu. "**A comprehensive survey of security threats and their mitigation techniques for next-generation SDN controllers.**" *Concurrency and Computation: Practice and Experience*, 32.16 (2020): e5300.
- M.A. Jan, **Syed Roohullah Jan**, M.Alam, A. Akhunzada, and I.U.Rahman, 2018. **A comprehensive analysis of congestion control protocols in wireless sensor networks.** *Mobile networks and applications*, 23(3), pp.456-468.
- Li, Wei, Yuanbo Chai, Fazlullah Khan, Syed Rooh Ullah Jan, Sahil Verma, Varun G. Menon, and Xingwang Li. "A comprehensive survey on machine learning-based big data analytics for IoT-enabled smart healthcare system." *Mobile Networks and Applications* (2021): 1-19.
- H. Ali, A.Saeed,, Syed Roohullah Jan, A. Khan, and A.Khawaja, 2012. **Internet Connectivity using Vehicular Ad-Hoc Networks.** *International Journal of Computer Science Issues (IJCSI)*, 9(4), p.286.

- Badshah, Faizan, **Syed Roohullah Jan.**, et al. "**Communication between multiple processes on same device using TCP/IP suite.**" Communication, Computing and Digital Systems (C-CODE), International Conference on. IEEE, 2017.
- F. Khan, **Syed Roohullah Jan.**, Tahir, M. and Khan, S., 2015, October. **Applications, limitations, and improvements in visible light communication systems.** In 2015 International Conference on Connected Vehicles and Expo (ICCVE) (pp. 259-262). IEEE.

## **PROFESSIONAL EXPERIENCE**

- **Aug 2009 – Present**
- **Lecturer, Abdul Wali Khan University Mardan - Government Sector University.**
- **Courses taught:** Data Communication, Computer Networking, Operating System, Parallel and distributed computing, E-commerce, Information Systems, Research Methodology, Project Management, Software Engineering, ethics in information technology and introduction to programming.
- **Role and Responsibilities:**
  - Preparing and delivering lectures (offline and online), course syllabus and lab manuals, conducting tutorials, seminars and laboratory sessions and maintaining course folder
  - Preparing, checking, marking and grading student's assignments, quizzes and exam papers (Formative and Summative Assessments)
  - Supervision of FYPs of undergraduate and postgraduate students,
  - Attended board of studies meetings, board of examiners meetings, departmental meetings, conferences and seminars.
  - Participating in setting courses and degree requirements, curriculum revision and academic planning and feedback.
  - In charge of IT skills enhancement centre providing assistance and support to students and staff of the university in using computers (SW/HW), ICT tools and WWW
  - Member of various committees such as UFM meetings, financial aid, student's affairs, and departmental admission committee
  - Respond by advising students on academic and non-academic related matters
- **Mar 2008 – Aug 2008**
- **Lecturer, Preston University, Islamabad Campus.**
- **Courses Taught:** Wireless Networking, Data Communication, E-commerce and Introduction to programming, ICT.
- **Role and Responsibilities:**
  - Preparing and Delivering lectures, Preparation of course syllabus and Lab manuals
  - Graded student's course work, supervision of final year projects.
  - Maintenance of course folder, checking, marking and grading student's assignment, exam papers and quizzes.
  - Actively participated in council, senate, faculty and other committees and professorial boards
  - Conducting research and undertaking consultancies in the field of computer science
  - Stimulating and guiding class discussions
  - Compiling bibliographies of specialized materials for reading assignments
- **Oct 2008 – July 2009**
- **Lecturer, Abasyn University, Peshawar Campus.**
- **Courses Taught:** Computer Networks, Data Communication, Information systems, E-commerce, Object Oriented programming and Introduction to Computers.
- **Role and Responsibilities:**
  - Design, develop, and deliver course material both online and offline using computer science pedagogies

- Create and deliver course material, lesson plans, and curricula, Lab manuals, maintenance of course folder, checking, marking and grading student's assignment, exam papers and quizzes.
- Conduct research and engage with students, assist with processing applications, and also attend interviews, conferences, and meetings.
- Graded student's course work, supervision of final year projects.
- **Sept 2006 – Feb 2007**
- **Technical Assistant, University of Bedfordshire, Luton Campus, UK.**
- **Role and Responsibilities:**
  - Assist network manager in installation and configuration of the university network.
  - Checking status of the network using specialized softwares and reporting any fault to the network manager.
  - Issuing software to the students and helping them with any technical problem they incur while using the labs.
  - Helping students with their programming and simulation assignments.

#### **DETAIL OF TRAININGS AND PROFESSIONAL ACTIVITIES**

- **Institute of Research promotions (IRP) 9<sup>th</sup> and 10<sup>th</sup> Dec 2010**
  - Managing plagiarism pre & post controlling strategies
- **Brunel University, London 07<sup>th</sup> Nov 2011**
  - Working with your supervisor
- **Brunel University, London 09<sup>th</sup> Nov 2011**
  - Early stage research module
- **Brunel University, London 15<sup>th</sup> Nov 2011**
  - Advanced refwork for researchers
- **ORGANIZER**
- **2<sup>nd</sup> international conference on computational and social sciences**
  - Abdul Wali Khan University, Pakistan & Recep Tayyip Erdogan University, Turkey (26<sup>th</sup>-28<sup>th</sup> Aug 2014)
- **ORGANIZER**
- **2<sup>nd</sup> EAI international conference on future intelligent vehicular technologies, Islamabad**
  - Abdul Wali Khan University, University of Lahore and EAI (17<sup>th</sup> – 19<sup>th</sup> Oct 2017)
- **WEB CHAIR- EAI BigIoT-EDU 2022**
  - EAI international conference on Application of Big Data, Blockchain, and Internet of Things for Education Informatization, China (July 29-31, 2022)<sup>2<sup>nd</sup></sup>

#### **VOLUNTARY AND COMMUNITY WORK**

- Khpal kor disabled and senior citizen computer training Centre, organized by a local NGO; **Empowering through education, Mardan**--[Volunteer - Computer Instructor]
- Active group member and instructor, successfully organized ICT training workshops for the faculty and administrative staff of the university.
- Participated in first aid & health & safety training workshops held in April 2007 with British Red Cross, UK.

#### **REFERENCES**

- **Dr. Mian Ahmad Jan**
  - **Position:** Assistant Professor, Department of Computer Science, AWKUM.
  - **E-mail:** [mianjan@awkum.edu.pk](mailto:mianjan@awkum.edu.pk)
- **Dr. Rahim Khan**

- **Position:** Associate professor, Department of Computer Science, AWKUM
- **E-mail:** [rahimkhan@awkum.edu.pk](mailto:rahimkhan@awkum.edu.pk)