

## Saleem Iqbal, PhD

(HEC Pakistan approved PhD Supervisor)

Citations: 1000 Cumulative Impact Factor: 55

[Dr. Saleem Iqbal - Google Scholar](#)

### Academic Qualifications:

#### PhD (Computer Science) 2012 - 2015

PCRG lab, Faculty of Computing University Technology Malaysia, Malaysia

Specialization: Wireless Networks

Thesis: Enhanced Interference-Aware Channel Assignment

Scheme in Wireless Mesh Networks

Supervisor: Prof Dr. Abdul Hanan Abdullah

#### MS (Computer Science) 2004 - 2006

COMSATS Institute of Information Technology, Pakistan

Specialization: Wireless Networks

Thesis: Mobile IP based Handoff from GPRS to Wi-Fi

Supervisor: Prof Dr. Mehboob Yasin

#### BS (Computer Science) 1999 - 2003

COMSATS Institute of Information Technology, Pakistan

Project: Application Installer using Java

### Professional Experience:

#### Associate Professor (Dept. of Computer Science) Nov 2021 – Till Date

Allama Iqbal Open University, Islamabad

- Lecturing
- Member University Academic Council 2025-2028
- Member Committee of Courses
- Member Faculty Board
- Member Undergraduate Policy
- Member Sub-Committee Campus Development Committee
- Member Postgraduate Admission Committee

#### Chairman / Associate Professor, Dept. of Computer Science Nov 2021 – Nov 2024

Allama Iqbal Open University, Islamabad

- Heading the Department
- Managing Academic, Administrative and Financial Tasks of the Department
- Offering of Degree Programs (BS, MS and PhD), Diploma Program (PGD), Short Courses
- Offering of BS degree program through e-class room to regional campuses of AIU
- Head Committee of Courses
- Member Faculty Board

#### Consultant Embedded Systems Nov 2024 – Till Date

M/s Earth Scan Systems Pty Ltd Australia

- Providing consultancy on the design and deployment of agriculture-focused IoT gateways and data loggers.
- Guided system architecture and integration of IoT solutions for real-time field data acquisition and monitoring.
- Supported development of scalable, reliable solutions to improve agricultural decision-making through sensor-based automation.
- The out of this is being submitted for patent as well

#### Consultant Robotics Aug 2023 – Nov 2024

**LIMS Pakistan** (A project of Government of Pakistan being executed with the help of Pakistan Army to revolutionize the country's agriculture sector through the application of advanced technology, aim is to promote modern agriculture and improve food security)

- Leading R&D of smart devices for agriculture including satellite assisted UGVs and UAVs

**Director Institute (University Institute of Information Technology)**

**Nov 2018- Feb 2019**

PMAS-AAUR, Rawalpindi

- Reporting Officer: Vice Chancellor
- Managing Academic, Administrative and Financial Tasks of the Institute having around 3000 students
- Additionally, has also been assigned the look after charge for the post of Director University Institute of Information Technology (UIIT) time to time

**Assistant Professor (Computer Science)**

**2012 - 2021**

PMAS-AAUR, Rawalpindi

- Lecturing in Computer Networks, wireless Networks, Network Management and Security, System Administration, Theory of Automata, Operating Systems, Advanced Operating Systems, Computer Organization and Assembly Language
- Supervising undergraduate student projects
- Supervising MS and PhD student thesis
- Member Supervisory committee of MS-CS
- Member Scrutiny committee of MS-CS
- Member Visiting Faculty Scrutiny committee
- Member Selection Committee for hiring Technical Staff
- Convener Pre-ISAC Ehsaas Undergraduate Scholarships Program Phase-I
- Member Institutional Self-Assessment Reports Committee for MS/PhD
- Member wireless research group (CROWN)

**Assistant Director (Information Technology)**

**2007 - 2012**

NBF, Cabinet Division, Islamabad

Responsible to direct and control the development, implementation and maintenance of the department's information technology systems: primarily the computerization of the current office data of the department, data collection, dissemination of data and its analysis. Some key responsibilities include:

- To maintain and computerize the records of the section in the form of a database (MIS) and also to develop software and applications for the department.
- To maintain the software related issues of Network (LAN, WAN) and also the troubleshooting in the internet services and also input in the procurement of computer equipment of the department.
- To ensure the data security and backup of the important data of the department.
- To supervise the technical staff and coordination with higher authorities.
- To assign the daily tasks to the staff of the computer section.
- Publication officer for quarterly magazine and general books
- Personal Staff Officer (PSO) to the Managing Director

**Lecturer (Computer Science)**

**2003 - 2007**

COMSATS, Islamabad

- Lecturing BS & MCS modules: Wireless Networks, Programming and database related courses.
- Team Lead in Web Development, also Worked on updating and maintenance of web portal (php + MS Access)
- Worked as database Assistant in the deployment of a project (C.I.I.T Portal), developed by LMKR using Oracle 9i.
- Supervising Final Degree Student Projects (Database, Web & Networks)
- Supervision and conduction of Video Conferencing.
- Participation in Admission Process and Student Career Counseling

- Group member of wireless networks research group.

### Visiting Faculty

Bahria University, Islamabad

2018 – 2019

- Lecturing Adv. Computer Networks

Iqra University, Islamabad

2017 – 2020

- Lecturing Network Programming & Communication Protocols and Advanced Operating systems.

Preston University, Islamabad

2008 - 2011

- Lecturing Computer Networks, Wireless Communication, Communication Systems and IT related subjects to Bachelor and Master level Students (B-Tech and MSc. and BS).
- Supervising Student Projects

## ACHIEVEMENTS

- HEC partial Scholarship Award 2015
- International Doctoral Fellowship Malaysia
- PhD best thesis award.
- Participated in Short term Faculty exchange Indonesia.
- Participated as Invited Speaker by ISESCO in Nigeria
- Featured in Oracles 100 spotlight celebrations 2023.

## BOOK AUTHORSHIP

### Textbook Author for Federal Textbook Board Pakistan (Formally Known as National Book Foundation)

- Computer Science for Class – 6 (Books being taught from Year 2022)
- Computer Science for Class – 7 (Books being taught from Year 2022)
- Computer Science for Class – 8 (Books being taught from Year 2022)
- Computer Science for Class – 9 (In review process)
- Computer Science for Class – 11 (In review process)
- Computer Science for Class – 6 Inclusive Books but specifically being for dyslexic students (In development process)
- Computer Science for Class – 7 Inclusive Books but specifically being for dyslexic students (In development process)
- Computer Science for Class – 8 Inclusive Books but specifically being for dyslexic students (In development process)

## JOURNAL GUEST EDITOR

- Journal: Applied Sciences (ISSN 2076-3417)  
Publisher: MDPI  
Special Issue Title: Big Data Analytics for Internet of Things Enabled Smart Cities and Societies  
Section: Computing and Artificial Intelligence  
Contact Editor: Bean Li

## RESEARCH PUBLICATIONS

### Journal Publications

- R. W. Anwar, F. Outay, K. N. Qureshi, S. Iqbal and K. Z. Ghafoor, "**State-Based Energy Calculation Scheme for Internet of Things Networks**," in *IEEE Access*, vol. 11, pp. 106967-106979, 2023, doi: 10.1109/ACCESS.2023.3318005.
- **Saleem Iqbal**, Hira Maryam, Kashif Naseer Qureshi, Ibrahim Tariq Javed, Noel Crespi, **Automised flow rule formation by using machine learning in software defined networks based edge**

**computing.** Egyptian Informatics Journal (Impact Factor 3.943) – Volume 23, Issue 1, March 2022, Pages 149-157

- Waqas Buksh, Ying Guo, **Saleem Iqbal**, Kashif Naseer, J Llorit, **Trust Oriented Peered Customized Mechanism for Malicious Nodes Isolation for Flying Ad Hoc Networks**" Transactions on Emerging Telecommunications Technologies - (Impact Factor 2.638) – 2022
- **Saleem Iqbal**; Kashif Qureshi; Saqib Majeed; Kyan Zar Ghafoor; Gwanggil Jeon, "**Partially Overlapped Channel Assignment for Cloud-based Heterogeneous Cellular and Mesh Networks**" Wireless Personal Communications, (Impact Factor 1.671) – 122, pages2563–2582 (2022)
- Sabih Khan, **Saleem Iqbal**, Kashif Naseer Qureshi, Kayhan Zrar Ghafoor, Pyoungwon Kim, Gwanggil Jeon "**Survivability of mobile and wireless communication networks by using service oriented Software Defined Network based Heterogeneous Inter-Domain Handoff system**" Computer Communications. Volume 175, July 2021, Pages 177-185. ISSN: 0140-3664, Impact Factor 2.816. <https://doi.org/10.1016/j.comcom.2021.05.010>
- Kashif Naseer Qureshi, Adi Alhudhaif, Adil Hussain, **Saleem Iqbal**, Gwanggil Jeon, **Trust aware energy management system for smart homes appliances.** Computers & Electrical Engineering (Impact Factor 3.818) – Volume 97, January 2022, 107641 DOI: <https://doi.org/10.1016/j.compeleceng.2021.107641>
- Muhammad Junaid Nazar, Adi Alhudhaif, Kashif Naseer Qureshi, Saleem Iqbal & Gwanggil Jeon **Signature and Flow Statistics based Anomaly Detection System In Software-Defined Networking.** International Journal of System Assurance Engineering and Management (Impact Factor 1.72) ISSN (E) 0976-4348, Print (0975-6809) – 14, pages87–97 (2023)
- Tariq Khan, Adnan Sohail, Kashif Naseer Qureshi, Saleem Iqbal, Gwanggil Jeon **Multipath Transport Control Protocol for 5G Mobile Augmented Reality Networks.** International Journal of Communication Systems. (Impact Factor 1.319) – Published: 09 March 2021, Impact factor:1.319, Online ISSN:1099-1131 DOI: <https://doi.org/10.1002/dac.4778>
- Saqib Majeed, Adnan Sohail, Kashif Qureshi, Arvind Kumar, **Saleem Iqbal**, Jaime Lloret. **Unmanned Aerial Vehicles Optimal Air Time Estimation for Energy Aware Deployment in IoT Enabled Fifth Generation Cellular Networks.** EURASIP Journal on Wireless Communications and Networking (Impact Factor 1.408) – Issue: 1/2020, Article number: 254 (2020) 1687-1472 (print), 1687-1499 (online) DOI: <https://doi.org/10.1186/s13638-020-01877-0>
- Zia Raja, Saud Altaf, **Saleem Iqbal.** **An Efficient Lightweight Key Agreement and Authentication Scheme for WBAN.** IEEE Access Volume: 8, Pages: 175385 - 175397 September 2020, ISSN: 2169-3536, DOI: 10.1109/ACCESS.2020.3026630 - (Impact Factor 3.745)
- **Saleem Iqbal**, Nabeela Kanwal and Kashif Qureshi (2020) **Collaborative Energy Efficient Zone based Routing Protocol for Multi-Hop Internet of Things.** Transactions on Emerging Telecommunications Technologies - Wiley ISSN: 1532-0634 (Impact Factor 1.258) DOI: 10.1002/cpe.5676
- **Saleem Iqbal**, Faisal Sohaib and Kashif Qureshi (2020) **Minimize the Delays in Software Defined Network Switch Controller Communication.** Concurrency and Computation: Practice and Experience – Wiley ISSN: 1532-0634. (Impact Factor: 1.447)
- Rosheen Qazi, Kashif Naseer Qureshi, Faisal Bashir, Najam Ul Islam, **Saleem Iqbal** & Arsalan Arshad (2020) **Security protocol using elliptic curve cryptography algorithm for wireless sensor network.** Journal of Ambient Intelligence and Humanized Computing, Vol: 12, pages: 547–566, Published: April 2021, (Impact Factor 1.91) ISSN: 1868-5137 DOI:10.1007/s12652-020-02020-z
- Sajid Latif, Mushhad Mustanzer Gillani, Liaqat Ali, **Saleem Iqbal**, Misbah Liaqat (2020) **Characterizing the Architectures and Brokering protocols for Enabling Clouds Interconnection.** Concurrency and Computation: Practice and Experience – Wiley, , Volume: 32, Issue: 21, Published: February 2020 ISSN: 1532-0634. (Impact Factor: 1.167) DOI: 10.1002/cpe.5676

- **S. Iqbal**, AH Abdullah, KN Qureshi (2019) **An adaptive interference-aware and traffic-aware channel assignment strategy for backhaul networks**, Concurrency and Computation: Practice and Experience – Wiley, Volume: 32, Issue: 11, Published: December 2019 ISSN 1532-0634 (IF: 1.167) DOI: 10.1002/cpe.5650
- **Saleem Iqbal**, Abdul Hanan Abdullah, Kashif Naseer Qureshi (Nov 2017) **Channel Quality and Utilization Metric for Interference Estimation in Wireless Mesh Networks**. Computers and Electrical Engineering – Elsevier ISSN 0045-7906 Volume 64, Published: Nov 2017, pp 420-435, (IF: 1.570) DOI: 10.1016/j.compeleceng.2017.10.003
- **Saleem Iqbal**, Abdul Hanan Abdullah, Faraz Ahsan, Kashif Naseer Qureshi (Mar 2017), **Critical Link Identification and Prioritization using Bayesian Theorem for dynamic Channel Assignment in Wireless Mesh Networks**. Wireless Networks – Springer ISSN 1572-8196 Volume 24, pp 2685–2697 (IF: 1.584) DOI: 10.1007/s11276-017-1471-8
- **Saleem Iqbal**, Abdul Hanan Abdullah, Kashif Naseer Qureshi, J Lloret (Nov 2017) **Soft-GORA: Soft Constrained Globally Optimal Resource Allocation for Critical Links in IoT Backhaul Communication**. IEEE Access ISSN: 2169-3536, Volume: 6 pp 614 - 624 (IF: 3.244), DOI: 10.1109/ACCESS.2017.2772867
- Kashif Naseer Qureshi, Abdul Hanan Abdullah, Omprakash Kaiwartya, **Saleem Iqbal**, Rizwan Aslam Butt, Faisal Bashir (Nov 2018) **A Dynamic Congestion Control Scheme for safety applications in vehicular ad hoc networks**. Computers and Electrical Engineering – Elsevier ISSN 0045-7906 Vol: 72 pp 774-788 (IF: 1.570), DOI: 10.1016/j.compeleceng.2017.12.015
- Raja Waseem Anwar, Anazida Zainal, Fatma Outay, Ansar Yasar, **Saleem Iqbal**(Jul 2019), **BTEM: Belief based trust evaluation mechanism for Wireless Sensor Networks** Elsevier- Future Generation Computer Systems ISSN: 0167-739X, Volume 96, pp 605-616. (IF: 4.639) DOI: 10.1016/j.future.2019.02.004
- Raja Waseem Anwar, Anazida Zainal, **Saleem Iqbal** (Dec 2019), **"Systematic literature review on designing trust-based security for WSNs"**, Indonesian Journal of Electrical Engineering and Computer Science ISSN: 2502-4760, Vol. 14, No. 3, , pp. 1395-1404 (Scopus Indexed) , DOI: 10.11591/ijeecs.v13.i3
- Muhammad Jamal Ahmed, **Saleem Iqbal**, Khalid M. Awan, Kashif Sattar, Zuhaib Ashfaq Khan, Hafiz Husnain Raza Sherazi (Aug 2019) **A Congestion Aware Route Suggestion Protocol for Traffic Management in Internet of Vehicles**, Springer- Arabian Journal for Science and Engineering ISSN: 2191-4281 Vol: 45, pp: 2501–2511 (Q2 – IF: 1.518) DOI:10.1007/s13369-019-04099-9
- Kashif Naseer Qureshi, Abdul Hanan Abdullah, Faisal Bashir, **Saleem Iqbal**, Khalid Mehmood Awan (Jan 2018) **Cluster based Data Dissemination, Cluster Head Formation under Sparse and Dense Traffic Conditions for Vehicular Ad hoc Networks**. International Journal of Communication Systems - Wiley ISSN: 1099-1131 (IF: 1.066) 31(8) pp 1-16, Published: January 2018. DOI: 10.1002/dac.3533
- **Saleem Iqbal**, Abdul Hanan Abdullah, Mohd Murtadha Mohamad, Kashif Naseer Qureshi, and Khalid Hussain (Jul 2016) **Adaptive Interface Reconfiguration in Low-rate Mesh WPANs**. Journal of Computational and Theoretical Nanoscience - ASP ISSN: 1546-1963 Vol 13 No. 8 pp. 4703–4710 (IF: 1.5) DOI: 10.1166/jctn.2016.5340
- **Saleem Iqbal**, Hanan Abdullah, Khalid Hussain, Faraz Ahsan, (May 2015) **Channel Allocation in Multi-Radio Multi-Channel Wireless Mesh Network - A Categorized Survey**. KSII Transactions on Internet and Information Systems, ISSN: 1976-7277 Vol 9. No. 5. pp. 1642-1661 (IF: 0.56) DOI: 10.3837/tiis.2015.05.005
- Kashif Naseer Qureshi, Abdul Hanan Abdullah, Omprakash Kaiwartya, Fasee Ullah, **Saleem Iqbal**, Ayman Altameem (Aug 2016) **Weighted link quality and forward progress coupled with modified RTS/CTS for beaconless packet forwarding protocol (B-PFP) in VANETs**, Telecommunication Systems – Springer, ISSN: 1572-9451, 75, pages145–160 (IF: 0.822) DOI: 10.1007/s11235-016-0207-x

- Saqib Majeed, **Saleem Iqbal**, Adnan Ahmed, Kulsoom Azad, Kashif Sattar (2016) **An Ontology-driven Vegetation Classification for Semantic based Image Retrieval of Arial Photography**, QUEST Research Journal ISSN: 2523-0379, 15 (2), pp 32 - 37 (HEC Y Category)
- Zafar Iqbal, Nadeem Javaid, **Saleem Iqbal**, Sheraz Aslam, Zahoor Ali Khan, Wadood Abdul, Ahmad Almogren Atif Alamri, **A Domestic Microgrid with Optimized Home Energy Management System**, *Energies* 2018, 11(4), 1002-1022. DOI: <https://doi.org/10.3390/en11041002>
- Kashif Naseer Qureshi, Abdul Hanan Abdullah, **Saleem Iqbal**, Zia Muhammad (2016). **Improving quality of service through road side back-bone network in VANET** Jurnal Teknologi ISSN: 2180-3722, Vol. 78, No. 2, pp 7-14. DOI: <http://dx.doi.org/10.11113/jt.v78.4315>
- A Rauf, AH Abdullah, **S Iqbal**, K Awan (2019) **Perception Reasoning Task-Role RBAC for Data Access Control in Cloud Computing**, International Journal of Computing and Communication Networks 1 (1), 1-9
- Khalid Hussain, **Saleem Iqbal**, Sohail Asghar and Abdul Hanan Abdullah, (2013) **An Efficient AI Based Approach for Multimedia Traffic Management in Wireless Network**. Research Journal of Applied Sciences Engineering and Technology- Maxwell Science Journal ISSN: 2040-7467, (ISI Indexed) Vol. 6 No. 04. pp. 551-556.
- Khalid Hussain, Abdul Hanan Abdullah, **Saleem Iqbal**, Faraz Ahsan (2013) **An Intelligent Malicious Node Detection Model (IMDM) in MANET: A Bayesian Technique**. European Journal of Scientific Research, ISSN: 1450-216x Vol. 102, No. 4 , pp. 474-489 (Impact Factor 0.713)
- Khalid Hussain, Abdul Hanan Abdullah, **Saleem Iqbal**, Faraz Ahsan (Oct 2013) **Efficient Cluster Head Selection Algorithm for MANET** Journal of Computer Networks and Communications - Hindawi, ISSN: 2090-715X, Volume 2013, (Impact Factor 1.08) pp 1-7 DOI: 10.1155/2013/723913
- A Zeb, Q Ali, MQ Saleem, KM Awan, AS Alowayr, J Uddin, **S Iqbal** (2019) **A Proposed IoT-Enabled Smart Waste Bin Management System and Efficient Route Selection**, Journal of Computer Networks and Communications – Hindawi, ISSN: 2090-715X Vol 2019 (ISI Indexed) pp 1-9, DOI:10.1155/2019/7043674
- Raja W. Anwar, Anazida Zainal, **Saleem Iqbal**, Mahmood Bashir, "Key Security Challenges and Threats to Cyber-Physical Systems and Their Applications", QUEST RESEARCH JOURNAL ISSN: 2523-0379, VOL. 16, NO. 1, 31–36, JUL-DEC 2018.

#### **Conference/Workshop Publications**

- Z ur Rehman, S Altaf, S Iqbal ((2019) **Survey of Authentication Schemes for Health Monitoring: A Subset of Cyber Physical System**, 16th International Bhurban Conference on Applied Sciences and Technology (IBCAST) Islamabad, Pakistan, January 8-12, 2019
- A. Jabbar, S. Altaf, S. Iqbal, **Radio-Frequency Based Human Activities Recognition Remote Sensing: Techniques, Systems and Evaluation Process**, 5th International Conference on Aerospace Science & Engineering, (ICASE), November 14-16, 2017, Pakistan.
- Saleem Iqbal. (2017) **Emerged Wireless Sensor Technologies and Monitoring Systems in Precision Agriculture** Field 4th International Workshop on 'Applications of ICTs in Education, Healthcare and Agriculture' (25-27 July 2017, Abuja, Nigeria)
- Saleem Iqbal, Abdul Hanan Abdullah (2015) **Adaptive Interface Reconfiguration of Mesh WPANs in IOT Environment**, Proceedings of the 14th International Conference on Applied Computer and Applied Computational Science (ACACOS '15) held in Kuala Lumpur, Malaysia on April 23 - 25, 2015. pp 104-110
- Saleem Iqbal, Abdul Hanan Abdullah, Faraz Ahsan, Rohana Yusof, **AI based Adaptive Backbone Schema for WSN in e-Agriculture**, 2nd Symposium on Wireless Sensors and Cellular Networks (WSCN'13) held in Jeddah, Saudi Arabia on December 13 - 16, 2013.

- Saleem Iqbal, Faraz Ahsan, Khalid Mahmood, Khalid Hussain “**Minimizing Vertical Handoff Latency for Wireless LAN and GPRS using Mobile IP**”, International Conference on Cyber technology issues, challenges, and development – BIZTEK, Friday 6th July 2007 at Karachi
- Faraz Ahsan, Khalid Hussain, Khalid Mahmood, Saleem Iqbal, “**Conservation of Flow in Wireless mesh networks**”, International Conference on Cyber technology issues, challenges, and development – BIZTEK, Friday 6th July 2007 at Karachi
- Security Threats and Challenges ti IoT and iots Applications: A Review, Waseem

## BOOK CHAPTERS

Sr.	Book Title	Chapter Title	Publisher	Year
1	Information Security Handbook, ISBN 9780367365721	Software Defined Networking Security Concerns	Taylor & Francis Group, USA	2022 (Publication Date: 18 Feb 2022)
	Weblink: <a href="https://www.routledgehandbooks.com/doi/10.1201/9780367808228-2">https://www.routledgehandbooks.com/doi/10.1201/9780367808228-2</a>			
3	Information Security Handbook, ISBN 9780367365721	Key Authentication Schemes for Medical Cyber Physical System	Taylor & Francis Group, USA	2022 (Publication Date: 18 Feb 2022)
	Weblink: <a href="https://www.routledgehandbooks.com/doi/10.1201/9780367808228-2">https://www.routledgehandbooks.com/doi/10.1201/9780367808228-2</a>			
4	Artificial Intelligence of Things (AIoT) New Standards, Technologies and Communication Systems, Edition 1, ISSBN-13: 978-1032552996	Ch 6. Networking and Protocols for AIoT Networks by Saleem Iqbal, Syed Amad Hussain Shah, Saqib Majeed, and Saud Altaf	CRC Press Taylor & Francis Group, USA	2023 (Publication Date March 15, 2024)
5	Artificial Intelligence-based Smart Healthcare Systems: New Standards, Technologies and Communication Systems	Chapter 6: Networking and Protocols for AI based Healthcare Networks	Elsevier	

## M.S. STUDENTS SUPERVISED

Sr.	Student	Thesis Title	Year
1	Muhammad Waris	Load Prediction Approach Using Machine Learning in FANETs (UAVs)	2022
2	Ali Khan		2022
3	Syed Amad Hussain Shah	Energy aware Drone base station deployment in Cellular Networks	2019
4	Rana Jahanzeb Zahid (12-arid-2039)	Securing Data Through Cryptography	2019
5	M. Junaid Nazar (10-arid-122)	Malicious Behavior Detection in Software Defined Networks	2018
6	Salman Khan (15-arid-1658)	Packet Scheduling Algorithm for Real-time Wireless Networks	2018
7	M. Irshad (15-arid-1646)	Performance Enhancement for Iter-domain Routing in SDN	2018
8	M. Furkhan Khan (15-arid-1644)	Document Clustering using Particle Swam Optimization	2018
9	Nabeela Kanwal	Energy Efficient Zone based Routing Protocol for	2017

	(14-arid-4186)	MANETS	
10	Zahid Iqbal	Interference aware partially Overlapped Channel	2017
	(12-arid-2411)	Assignment Technique for Wireless Mesh Networks	
11	Atif Shahzad	Reliable Routing in Wireless Mesh Networks	2017
	(08-Arid-416)		
12	Ishtiaq Ahmad	Efficient Data Gathering using Sink Mobility in	2016
	(13-arid-1588)	Under water sensor networks	
13	Ume Hubbeeba	Dynamic Channel Assignment via unsupervised	2016
	(13-arid-1602)	learning for wireless Mesh Networks	
14	Arif Hussain	Multi-hop interference estimation in Wireless	2016
	(12-arid-2382)	Networks	
15	Mahmood Bashir	Traffic Aware Channel Assignment Technique for	2016
	(12-arid-2393)	Wireless Mesh Networks	

## PHD STUDENTS SUPERVISED

Sr.	Student Name	Thesis Title	Year
1	Zafar Iqbal	On optimizing energy consumption with Combined operations of microgrids for demand Side management in smart homes	2020
2	Sabih Khan Afridi	Mobility management and handover in software Defined networks	submitted
3	Syed Amad Hussain Shah	Intelligent Routing Protocol for Flying Adhoc Networks	In progress

## RESEARCH PROJECTS

- Project Title: Low power Efficient Wireless Data transmission using Visible Light Communication**  
 Role: Co-PI, Funding agency: Higher Education Commission of Pakistan, PrID: 1653 (2017-18)  
 Funding amount: PKR 4.31m, Duration: April 2017 – April 2018, Status: Completed
- Project Title: Smart Ecosystem for Honeybees**  
 Role: PI, Funding Agency: Higher Education Commission of Pakistan  
 Funding amount: PKR 19.99m, Status: Submitted

## PROFESSIONAL ACTIVITIES/SERVICES

- INTERVIEWER (SUBJECT EXPERT)
  - PMAS-Arid Agriculture University Rawalpindi
  - National Book Foundation
  - Punjab Public Service Commission
  - Bilquis Postgraduate College For Women
  - Pakistan Mineral Development Corporation
- JOURNAL REVIEWER
  - Telecommunication Systems – Springer
  - KSII Transactions on Internet and Information Systems, Korea
  - International Journal of Computer Theory and Engineering, Singapore
- EXTERNAL EVALUATOR
  - Undergraduate external evaluator
    - Faculty of Computing, Riphah International University, Islamabad, Pakistan
    - COMSATS University, Islamabad
    - Bahria University, Islamabad
    - Air University – Fazaia Bilquis College Of Education For Women
  - Postgraduate external Evaluator (MS/PhD)
    - Bahria University, Islamabad



- Barani Institute of Information Technology, Rawalpindi
- Barani Institute of Sciences, Sahiwal
- COMSATS University Islamabad, Attock Campus
- University of Engineering and Technology, Taxila
- University of Lahore
- Khwaja Fareed University of Engineering and Information Technology
- WORKSHOPS conducted:
  - Workshop on OMNeT++ & NS-2  
Arranged and conducted a detailed seven days workshop on OMNeT++ & NS-2 for enhancing simulation skills for research students of Behria University, Islamabad (MS and PhD. Level)
  - Workshop on OMNeT++  
Conducted one day hand on experience workshop on usage of OMNET++ for students of HITEC University, Taxila
  - Instructional Designing with the context of Literacy and Non-Formal Education

## PROFESSIONAL TRAINING:

- |  |             |
|--|-------------|
| ▪ <b>Blockchain Training Workshop</b>  | <b>2018</b> |
| Jointly organized by HEC, ITROOS, IBA University Sukkar and Arid University  |             |
| ▪ <b>Interconnecting CISCO Network Devices (ICND)</b>  | <b>2004</b> |
| CISCO Regional Academy   |             |
| ▪ <b>D-Link's Wireless &amp; X-stack Switching Products</b>  | <b>2007</b> |
| D-Link, Pakistan   |             |
| ▪ <b>"Educational Research"</b>  | <b>2009</b> |
| for Educational Managers, Planners and Research Scholars<br>Academy of Educational Planning and Management, MOE, GOP |             |
| ▪ <b>PostgreSQL</b>  | <b>2009</b> |
| Enterprise DB & PSEB   |             |
| ▪ <b>SQL Server 2000</b>   | <b>2005</b> |
| Pakistan Computer Bureau   |             |

## Technical SKILLS:

- |                                  |   |
|----------------------------------|---|
| ▪ <b>Network simulation tool</b> | Omnet++ using C++                                 |
| ▪ <b>Programming languages</b>   | C/C++, Java, Php, ASP                             |
| ▪ <b>Database</b>                | Oracle, My SQL, SQL Server, MS Access, PostgreSQL |

## MEMBERSHIPS & OTHER ASSOCIATIONS:

- **Journal of Information Society** (<http://www.journalsociety.net>)  
Board Member
- **Pervasive Computing Research Group, UTM, Malaysia**  
Research Member
- **Computer Science Teachers Association**  
Individual Membership (CSTA Membership # 5166258)
- **International Association of Engineers**  
Individual Membership (IAENG membership # 100345)
- **International Association of Computer Science and Information Technology**  
Membership for collaborative interdisciplinary research (Membership # 80331795)
- **National Testing Service**  
Contributor for MCQs in Question Bank of NTS (2006)
- **Assessment Team of Virtual University Pakistan**  
Member (evaluate study program B.Sc. (Computer Sciences))

## REFERENCES

**Prof. Dr. Zia Ul-Qayyum**  
Executive Director, Higher Education Commission  
0092-322-5316115

- **Prof Dr. Abdul Hanan Abdullah**  
Professor, University Technology Malaysia, Malaysia  
hananfskm@gmail.com