DR. JAVED IQBAL BANGASH (HEC Approved Supervisor)

Institute of Computer Sciences & Information Technology (ICS/IT),

Faculty of Management and Computer Sciences (FMCS),

The University of Agriculture, Peshawar, Pakistan

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RESEARCH INTERESTS

• Wireless Sensor Networks (WSNs), Wireless Body Sensor Networks (WBSNs), Internet of Things (IoT), Image and Multimedia Processing, Cyber and Network Security

WORK EXPERIENCE

January 2018 – to date

Assistant Professor – Institute of Computer Sciences & Information Technology, FMCS,

The Agriculture University, Peshawar, Pakistan

March 2015 – January 2018

Assistant Professor – Department of Computing, Faculty of Computing & Engineering,

Abasyn University, Peshawar, Pakistan

March 2010 - June 2012

Lecturer - College of Engineering, Majmaah University,

Majmaah, Kingdom of Saudi Arabia

April, 2009 – January. 2010

Lecturer – Lincolns Group of Colleges, London Campus, London, UK

AWARDS and ACHIEVEMENTS

- Achieved **Best Student Award** for Session 2014/2015 at University Technology Malaysia (UTM).
- Achieved **Certificate of Excellence** for PhD Thesis at University Technology Malaysia (UTM).
- Achieved International Doctoral Fund (IDF) at University Technology Malaysia (UTM).
- Achieved **Performance Award** at College of Engineering, Majmaah University, KSA.
- Master in Science (M.Sc) with **Distinction** at London Metropolitan University, UK.
- Maintained Excellent Grads throughout the Academic Career

EDUCATION

June 2012 – April 2015 **Doctor of Philosophy (PhD) – Computer Science**

Faculty of Computing,

University of Technology Malaysia (UTM), Malaysia

• Thesis: 'Enhanced Multi-facet Routing Mechanisms for Intra Wireless Body Sensor Networks'

Feb. 2006 – Mar. 2008 MSc Digital Communications Networks (With Distinction)

Department of Computing, Communications Technology and Mathematics,

London Metropolitan University, London, UK

• **Thesis:** 'Analysis, Design and Applications of Discrete Differentiator & Hilbert Transformation'

Jan. 2001 – May 2005

Bachelor of Computer Information Systems Engineering (CGPA 3.52/4.00)

Department of Computer Information Systems Engineering,

NWFP University of Engineering & Technology, Peshawar, Pakistan

• **Dissertation:** 'Design and Implementation of Home-Security System using 89c51 Microcontroller'.

SUBJECTS TAUGHT

BS Level:

Introduction to Computer Programming, Object Oriented Programming, Data Structures & Algorithms, Data Communication and Computer Networks, Wireless Communications, Operating System, Advance Computer Networks, Analysis & Design of Algorithms, Computer Organization and Architecture, Digital Logic Design, Digital Logic Design Lab., Microprocessors and Assembly Language, Signals & Systems Analysis, Digital Signal Processing, Digital Signal Processing Lab. Using MATLAB, Basic Electronics.

MS Level:

Research Methodologies, Advanced Analysis & Design of Algorithms, Advanced Computer Programming, Wireless Sensor Networks, Wireless Ad-hoc Networks, Advance Wireless & Mobile Communications, Advanced Computer Architecture

JOURNAL PUBLICATIONS

- Abdullah Khan, Junaid Bukhari, Javed Iqbal Bangash, Asfandyar Khan, Muhammad Imran, Muhammad Asim, Muhammad Ishaq, and Arshad Khan, "Optimizing Connection Weights of Functional Link Neural Network Using APSO Algorithm for Medical Data Classification", *Journal of King Saud University Computer and Information Sciences*, (In Press) (Impact Factor: 0.793).
- Syed Wasif Abbas Hamdani, Abdul Waheed Khan, Naima Latif, **Javed Iqbal Bangash**, Yawar Abbas Bangash, Asfandyar Khan, "Dynamic Distributed Trust Management Scheme for the Internet of Things", Turkish Journal of Electrical Engineering & Computer Sciences, (In Press), (**Impact Factor: 0.682**).
- Abdullah Khan, Haruna Chiroma, Muhammad Imran, Asfandyar Khan, **Javed Iqbal Bangash**, Muhammad Asim, Mukhtar Hamza and Hanan Aljuaid, (2020) "Forecasting electricity consumption based on machine learning to improve performance: A case study for the organization of petroleum exporting countries (OPEC)", *Computers & Electrical Engineering*, Vol. 86, pp. 1-14 (**Impact Factor: 1.57**).
- Anwer Shah, **Javed Iqbal Bangash**, Abdul Waheed Khan, Imran Ahmed, Abdullah Khan, Asfandyar Khan, and Arshad Khan, (2020), Comparative Analysis of Median Filter and its Variants for Removal of Impulse Noise from Gray Scale Images, *Journal of King Saud University Computer and Information Sciences*, pp. 1-15 (**Impact Factor: 0.793**).
- Fazli Subhan, Asfandyar Khan, Sajid Saleem, Shakeel Ahmed, Muhammad Imran, Zubair Asghar, and **Javed Iqbal Bangash** (2019). Experimental Analysis of Received Signals Strength in Bluetooth Low Energy (BLE) and Its Effect on Distance and Position Estimation. *Transactions on Emerging Telecommunications Technologies*. Vol. 30, pp. 1-10 (**Impact Factor: 1.258**).
- Adil Sheraz, **Javed Iqbal Bangash**, Abdul Waheed Khan, Muhammad Imran, Asfandyar Khan, Abdullah Khan, Muhammad Ishaq, and Wajid Ullah Khan (2019). A Dynamic Swift Association Scheme for Wireless Body Area Networks. *Transactions on Emerging Telecommunications Technologies*. Vol. 30, pp. 1-12 (**Impact Factor: 1.258**).
- Abdullah Khan, Rahmat Shah, Muhammad Imran, Asfandyar Khan, **Javed Iqbal Bangash**, Khalid Shah (2019). An alternative Approach to Neural Network Training based on Hybrid Bio Meta-Heuristic Algorithm. *Journal of Ambient Intelligence and Humanized Computing*. Vol. 10, No. 10, pp. 3821-3830

- (Impact Factor: 1.910).
- Adil Sheraz, Wajid Ullah Khan, **Javed Iqbal Bangash**, Syed Irfan Ullah, Abdus Salam, Abdul Waheed Khan, Sheeraz Ahmed (2018). Impact of Beacon Order and Superframe Order on IEEE802.15.4 for Nodes Association in WBAN. *EAI Endorsed Transactions on Energy Web and Information Technology*. Vol. 5, No. 17. pp. 1-6.
- Abdul Waheed Khan, **Javed Iqbal Bangash**, Adnan Ahmed, Abdul Hanan Abdullah. (2017). QDVGDD: Query-Driven Virtual Grid based Data Dissemination for Wireless Sensor Networks using Single Mobile Sink. *Wireless Networks*. Vol. 25, No. 1, pp. 241-253. (**Impact Factor: 2.405**).
- **Javed Iqbal Bangash**, Abdul Hanan Abdullah, and Abdul Waheed Khan. (2015). Data-Centric Routing for Intra Wireless Body Sensor Networks. *International Journal of Medical Systems*. Vol. 39, No. 91. pp. 1-13. (**Impact Factor: 2.415**).
- Abdul Waheed Khan, Abdul Hanan Abdullah, Muhammad Abdur Razzaque, and **Javed Iqbal Bangash**. (2015). VGDRA: Virtual Grid based Dynamic Routes Adjustment Scheme for Mobile Sink Based Wireless Sensor Networks. *IEEE Sensors Journal*. Vol. 15, No. 1. pp. 526-534. (**Impact Factor: 3.076**).
- **Javed Iqbal Bangash**, Abdul Hanan Abdullah, Abdul Waheed Khan, Muhammad Abdur Razzaque, and Rohana Yusof. (2015). Critical Data Routing (CDR) for Intra Wireless Body Sensor Networks. *TELKOMNIKA Telecommunication Computing Electronics and Control*. Vol. 13, No. 1. pp. 181-192. (**Scopus Indexed**).
- Abdul Waheed Khan, Abdul Hanan Abdullah, Muhammad Abdur Razzaque, **Javed Iqbal Bangash**, and Ayman Altameem. (2015). VGDD: A Virtual Grid based Data Dissemination Scheme for Wireless Sensor Networks with Mobile Sink. *International Journal of Distributed Sensor Networks*. Vol. 2015, Article ID. 890348, p. 17. (**Impact Factor: 1.614**).
- **Javed Iqbal Bangash**, Abdul Hanan Abdullah, Mohammad Hossein Anisi, and Abdul Waheed Khan. (2014). A Survey of Routing Protocols in Wireless Body Sensor Networks. *Sensors (Basel, Switzerland)*. Vol. 14, No. 1. pp. 1322-1357. (**Impact Factor: 3.031**).
- **Javed Iqbal Bangash**, Abdul Hanan Abdullah, Muhammad Abdur razzaque, and Abdul Waheed Khan. (2014). Reliability-Aware Routing (RAR) for Intra Wireless Body Sensor Networks. *International Journal of Distributed Sensor Networks*. Vol. 2014, Article No. 786537. p. 10. (**Impact Factor: 1.614**).
- Abdul Waheed Khan, Abdul Hanan Abdullah, Mohammad Hossein Anisi, and **Javed Iqbal Bangash.** (2014). A Comprehensive Study of Data Collection Schemes Using Mobile Sink in Wireless Sensor Networks. *Sensors (Basel, Switzerland)*. Vol. 14, No. 2. pp. 2510-2548. (**Impact Factor: 3.031**).
- **Javed Iqbal Bangash**, Abdul Hanan Abdullah and Abdul Waheed Khan. (2014). Issues and Challenges in Localization of Wireless Sensor Networks. *Science International (Lahore)*. Vol. 26, No. 2. pp. 595-603.
- Abdul Waheed Khan, Abdul Hanan Abdullah, and **Javed Iqbal Bangash**. (2014). Issues towards Efficient Time Synchronization in Wireless Sensor Networks. *TELKOMNIKA Indonesian Journal of Electrical Engineering*. Vo. 12, No. 10. pp. 7509–7522.

CONFERENCE PUBLICATIONS

- Tahira Khalil, **Javed Iqbal Bangash**, Abdus Salam and Awais Adnan. (2016). Low Level Visio-Temporal Features for Violence Detection in Cartoon Videos. *2016 Sixth IEEE International Conference on Innovative Computing Technology (INTECH)*. pp. 320-325.
- Asim Zeb, **Javed Iqbal Bangash**, A. K. M Muzadidul Islam, Sabariah Baharun, Atiq ur Rehman, Yoshiaki Katayama. (2016). Network Formation and Data Centric Routing in Wireless Sensor Networks. *1st International Conference on Advanced Information and Communication Technology (ICAICT)*. p. 7.
- Tareek I. Haweel, and **Javed Iqbal Bangash**, (2013). Volterra Neural Analysis of Fetal Cardiotocographic Signals", *First IEEE International Conference on Communications, Signal Processing and their Application Sharjah, UAE*. Feb. 2013.

BOOK CHAPTERS:

• **Javed Iqbal Bangash**, Abdul Waheed Khan, Adil Sheraz, Asfandyar Khan, Sajid Umair, "QoS-Aware Data Dissemination Mechanisms for Wireless Body Area Networks", Mobile Devices and Smart Gadgets in Medical Sciences, pp. 47-96, IGI Global, 2020

MS RESEARCH SUPERVISION (Main Supervisor)

- Tahira Khalil, Detection of Violence in Cartoon Videos Using Visual Features, Abasyn University, Peshawar, 2017.
- Anwar Shah, Hybrid Denoising and Resizing Algorithm for Gray Scale Aerial Images, Abasyn University, Peshawar, 2018.
- Adil Sheraz, A Hospital Scenario based Mobile Node Association Scheme for Wireless Body Area Networks, Abasyn University, Peshawar, 2018.
- Irfan Ullah, Improved Privacy Scheme for Phantom Node Selection in IoT Using Fuzzy Analytical Hierarchal Process, The University of Agriculture, Peshawar, 2019.
- Atiya Batool, Systemic Analysis of Bailey Basili and Howard Halstead Cost Estimation Models, Abasyn University, Peshawar, 2020.

MS RESEARCH SUPERVISION (Co-Supervisor)

- Akmal Shah, Optimal Path Selection based on Multi-Criteria Decision Making in VANETs, The University of Agriculture, Peshawar, 2019.
- Siyab Khan, DNA Sequences Classification using Hybrid Metaheuristic Back Propagation Algorithm, The University of Agriculture, Peshawar, 2019.
- Amir Butt, Adaptive Idle-Time based Efficient Sensor-Medium Access Protocol for Wireless Sensor Networks, The University of Agriculture, Peshawar, 2019
- Noor Nawaz Khan, Detection of Cooperative Black Hole Attack in MANETs using RSA Mechanism, The University of Agriculture, Peshawar, 2019.

RESEARCH PROJECTS

• Applications of Volterra Neural Networks – Research Assistant – Sponsored by Majmaah University, Kingdom of Saudi Arabia

OTHER RESEARCH ACTIVITIES

• Active Reviewer for IEEE Access Journal, IEEE Sensors Journal, Journal of Computer Networks and Communications, KSII Transactions on Internet and Information Systems

CONFERENCES/SIMINARS/WORKSHOPS/SUMMIT ATTENDED

- 4th Abasyn International Conference on Technology and Bussiness Management (AICTBM) at Abasyn University Peshawar as Session Chair.
- 3rd Abasyn International Conference on Technology and Bussiness Management (AICTBM) at Abasyn University Peshawar as Session Chair.
- One day orientation seminar on "External Quality Assurance and Accreditation of CS/IT programs", at IBMS.

- Abasyn National Software 2018 (ANS-18) Competition at Abasyn University as External Technical Reviewer.
- Technical Expert at 4th Invention to Innovation Summit KP (2018), CECOS University, Peshawar.
- Three Days International Workshop on, "Research Methods and Data Science, BRAINS Institute, Peshawar
- One day training on Accessing IEEExplore digital library organized by The University of Agriculture, Peshawar, Pakistan.
- International Webinar on Wireless Networks and NS-3 Network Simulator, Faculty of Computer Applications, Ganpat University India

MEMBERSHIP

- Member: Pakistan Engineering Council (COMP/3181)
- Member: Board of Studies at Department of Computing, Abasyn University, Peshawar.
- Member: Board of Studies at Department of Computer Science, City University of Science and Information Technology, Peshawar.
- Member: Board of Faculty at Faculty of Sciences and Information Technology, City University of Science and Information Technology, Peshawar.
- Member: Board of Advanced Studies and Research (BASAR), City University of Sciences and Information Technology, Peshawar
- Member: NCEAC Accreditation process, at Department of Computer Science & Information Technology, The University of Agriculture, Peshawar.
- Convener: Initiating new Program of BS Cyber Security, ICS/IT, The University of Agriculture, Peshawar
- Member: University Learning Management System (LMS), The University of Agriculture, Peshawar
- Member: Initiating new program of PhD (Computer Science), at Department of Computer Science & Information Technology, The University of Agriculture, Peshawar.
- Member: Curriculum Development Committee, College of Engineering, Majmaah University, KSA.
- Member: Registrations, Time Tables and Examinations Committee, Majmaah University, KSA.

PROFESSIONAL CERTIFICATIONS

• Cisco Certified Network Associate (CCNA)

PROGRAMMING SKILLS

• Expert Level Programming in C, C++, JAVA, MATLAB, and Network Simulator Version – 2 (NS2)

LANGUAGES

Proficient in English, Urdu, Pashto

REFERENCES

Available on Demand