Rizwan Akhtar (Ph.D., Post Doc)

Assistant Professor

Professional Engineer

Department of Information Technology and Computer Science

Pak Austria Fachhochschule: Institute of Applied Science and Technology (PAF-IAST), Haripur, Pakistan

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OBJECTIVE

To pursue a teaching job committed to student development and an overall productive learning environment with an aim to inspire and motivate students in line with academic and strong research perspective and institutional vision.

PROFILE

- ❖ 7- Years Post-PhD Experience in teaching, research and development experience in Universities
- Major Contributed in two international level projects
- Supervised international MS students.
- Serving Associate Editor IEEE Access
- Published high quality journals papers.
- Good Leadership and Managerial Skills.
- Public Speaking and effective Presentation Skills.
- Language proficiency in English

Teaching / Research Experience

Position	Institution Name	Duration	Year
Assistant Professor	Pak Austria Fachhochschule: Institute of Applied Science and Technology (PAF-IAST)	4 Months	Sept 2020-till now
Associate Professor	Jiangsu University of Science and Technology, China	1 year and 11 months	Oct-2018 - Sept-2020
Postdoctoral Fellowship	Jiangsu University China	2 years and Six Months	April - 2016- Oct- 2018
Assistant Professor	Comsats Institute of IT (Attock) Department of Electrical Engineering	1 year 8 months	Aug 2014- March 2016

EDUCATION / QUALIFICATIONS

- PhD degree in Information and Communication Engineering at University of Electronic Science and Technology of China (UESTC), June 2011- June 2014.
- Master of Engineering in Telecommunication Engineering at UET-Peshawar, Pakistan, 2008-2011
- BE (Computer Engineering) Comsats University, Islamabad, Pakistan, March 2002- June 2006

MS-Thesis

Title "Improvement of Security in the routing protocol of MANETs"

Contributions:

Implementation of secure AODV in MANET "R Akhtar, NU Amin, I Memon, M Shah: "proceedings spie digital library 2012"

Doctorate - Thesis

Title: Efficient Content Distribution in Mobile Social Networks

Contributions:

During my stay at University of Electronic Science and Technology of China for doctoral program I have published following research papers.

- [1] Rizwan Akhtar, Supeng Leng, Fan Wu and Imran Memon "Improvement of content Delivery in Mobile Social Networks". Proceeding of IEEE Conference on Computational Problem solving 2013. www.ic-cp.com
- [2] R. Akhtar et al. "Optimized secure link state routing in mobile social networks". Notes on Electrical Engineering, Springer UK 2013.Vol 185 LNEE, pp 77-85, 2013.
- [3] Rizwan Akhtar et al "Planner Patch Array using Corporate Feed Network for the Uplink Frequency of Cellular Based Repeater Stations" Sindh Univ. Res. Jour. (Sci. Ser.) Vol.44 (2) 2012.
- [4] Rizwan Akhtar, Supeng Leng et al "Architecture for efficient end to end content delivery in hybrid Mobile Social Networks." Wireless Personal Communications, Springer . 2014
- [5] Rizwan Akhtar, Supeng Leng et al "Efficient Content Distribution in Hybrid Mobile Social Networks" Proceedings of 2014 International Conference on Control Engineering and Electronic Engineering April 2014

RESEARCH PUBLICATIONS

Journals HEC Recognized

- Design of fractional evolutionary processing for reactive power planning with FACTS devices "Y Muhammad, R Akhtar, R Khan, F Ullah, MAZ Raja" - Scientific Reports, 2021. (IF 3.99) Corresponding Author
- 2. A Lightweight Location-Aware Fog Framework (LAFF) for QoS in Internet of Things Paradigm "Q Shaheen, M Shiraz, MU Hashmi, D Mahmood, **R Akhtar**" Mobile Information Systems 2020, (IF 1.50) **Corresponding Author.**
- 3. Secure Framework Enhancing AES Algorithm in Cloud Computing "IA Awan, M Shiraz, MU Hashmi, Q Shaheen, **R Akhtar**" Security and Communication Networks, 2020 (IF 1.28)
- 4. Content distribution and protocol design issue for mobile social networks: a survey "R Akhtar, Y Shengua, Z Zhiyu, ZA Khan, I Memon, S Ur Rehman, S Awan". EURASIP Journal on Wireless Communications and Networking 2019 (1), 128 (IF: 2.40) Corresponding Author
- 5. Design of Backtracking Search Optimization Paradigm for Joint Amplitude-Angle Measurement of Sources Lying in Fraunhofer ZoneMuhammad Asif Zahoor Rajaa b, Rizwan Akhtar a, Naveed Ishtiaq Chaudhary c, Wasim Ullah Khand Zhu Zhiyu a, Abid Jamil b, Fawad Zaman. "Measurement" https://doi.org/10.1016/j.measurement.2019.106977 Corresponding Author
- 6. Study of Algorithms for Wind Direction Retrieval from X-band Marine Radar Images Hui Wang, Haiyang Qiu *, Pengfei Zhi, Lei Wang, Wei Chen, **Rizwan Akhtar**, Muhammad Asif Zahoor Raja" 2019, Electronics MDPI (IF: 1.76)
- 7. Cluster-Based Arithmetic Coding for Data Provenance Compression in Wireless Sensor Networks "Q Xu, **R Akhtar**, X Zhang, C Wang" Wireless Communications and Mobile Computing 2018. (IF: 1.36)
- 8. Architecture for Collision-Free Communication Using Relaxation Technique "**R Akhtar**, ZA Khan, C Wang" Wireless Communications and Mobile Computing 2018(IF: 1.36)
- 9. Optimization based Approach for Content Distribution in Hybrid Mobile Social Networks "**R Akhtar**, I Memon, ZA Khan, C Wang" Optimization 9 (3). 2018 (ISI Index)

- 10. A new computing paradigm for the optimization of parameters in adaptive beamforming using fractional processing "MAZ Raja, **R** Akhtar, NI Chaudhary, Z Zhiyu, Q Khan, AU Rehman, .The European Physical Journal Plus 134 (6), 275.2019 (IF: 2.62) Corresponding Author
- 11. Numerical treatment for fluidic system of activation energy with non-linear mixed convective and radiative flow of magneto nanomaterials with Navier's velocity slip "I Uddin, **R Akhtar**, MAR Khan, Z Zhiyu, S Islam, M Shoaib, MAZ Raja" AIP Advances 9 (5), 055210.2019 (IF: 1.57) **Corresponding Author**
- 12. A Computational Analysis of Two-Phase Casson Nanofluid Passing a Stretching Sheet Using Chemical Reactions and Gyrotactic Microorganisms "Z Sabir, **R Akhtar**, Z Zhiyu, M Umar, A Imran, HA Wahab, M Shoaib", .Mathematical Problems in Engineering 2019 (IF: 1.17) **Corresponding Author**
- 13. Numerical Treatment for the Three-Dimensional Eyring-Powell Fluid Flow over a Stretching Sheet with Velocity Slip and Activation Energy "M Umar, **R Akhtar**, Z Sabir, HA Wahab, Z Zhiyu, A Imran, M Shoaib", .Advances in Mathematical Physics 2019 (IF: 0.93) **Corresponding Author**
- 14. A Novel Design of Three-Dimensional MHD Flow of Second-Grade Fluid past a Porous Plate," Muhammad Shoaib,1,2, **Rizwan Akhtar 1,** Muhammad Abdul Rehman Khan 3, Muhammad Afzal Rana 4, Abdul Majeed Siddiqui 5, Zhu Zhiyu 1, and Muhammad Asif Zahoor Raja 3 "Mathematical Problems in Engineering", vol. 2019, Article ID 2584397, 11 pages, 2019. https://doi.org/10.1155/2019/2584397 **Corresponding Author**
- 15. A Novel Bidirectional DC–DC Converter with Low Stress and Low Magnitude Ripples for Stand-Alone Photovoltaic Power Systems A Hussain, **R Akhtar**, B Ali, SE Awan, S Iqbal "Energies 12 (15), 2884" **Corresponding Author**
- 16. Search me if you can: Multiple mix zones with location privacy protection for mapping services "I Memon, QA Arain, MH Memon, FA Mangi, R Akhtar" International Journal of Communication Systems 30 (16), e3312. 2017 (IF: 1.27) Corresponding Author
- 17. Multi-panel medical image segmentation framework for image retrieval system "M Ali, L Dong, **R Akhtar**" Multimedia Tools and Applications 77 (16), 20271-20295, 2017 (IF: 2.10)
- 18. Architecture of hybrid mobile social networks for efficient content delivery "**R** Akhtar, S Leng, I Memon, M Ali, L Zhang" Wireless Personal Communications 80 (1), 85-96. 2015. (IF: 0.92)
- 19. Rumor riding: An anonymity approach for decentralized peer to peer systems "I Memon, K Domenic, H Memon, **R Akhtar**, W Yong, F Zhang". Wireless personal communications 79 (1), 647-660. 2014 (IF: 0.92)
- 20. Enhanced privacy and authentication: An efficient and secure anonymous communication for location based service using asymmetric cryptography scheme "I Memon, I Hussain, R Akhtar, G Chen". Wireless Personal Communications 84 (2), 1487-1508. 2015 (IF: 0.92)
- 21. Enhanced privacy and authentication: An efficient and secure anonymous communication for location based service using asymmetric cryptography scheme "I Memon, I Hussain, **R Akhtar**, G Chen". Wireless Personal Communications 84 (2), 1487-1508. 2015 (IF: 0.92)
- 22. Design and implementation to authentication over a GSM system using certificate-less public key cryptography (CL-PKC) "I Memon, MR Mohammed, R Akhtar, H Memon, MH Memon, RA Shaikh" Wireless personal communications 79 (1), 661-686 2014 (IF: 0.92)
- 23. **R Akhtar,** S. Leng et al. "Optimized secure link state routing in mobile social networks". Notes on Electrical Engineering, Springer UK 2013.Vol 185 LNEE, pp 77-85, 2013 (ISI indexed)
- 24. Architecture for efficient content distribution in hybrid mobile social networks "**R Akhtar**, S Leng, I Memon" Control Engineering and Electronics Engineering 95, 399-409, 2013(ISI Index)
- 25. Planner Patch Array using Corporate Feed Network for the Uplink Frequency of Cellular Based Repeater Stations "**Rizwan Akhtar**, I Shahid et al" Sindh Univ. Res. Jour. (Sci. Ser.) Vol.44 (2) (2012) (HEC X category)
- 26. High again 2x 2 Planer patch array for 17 GHZ BAND "Irfan Shahid, I. Memon, **Rizwan Akhtar** et al' Sindh Univ. Res. Jour. (Sci. Ser.) Vol.44 (2) (2012) (HEC X Category)

Conferences

- 1. Implementation of secure AODV in MANET "**R Akhtar**, NU Amin, I Memon, M Shah" International Conference on Graphic and Image Processing 8768 (ICGIP 2012)
- 2. Improvement of content delivery in mobile social networks "**R Akhtar**, S Leng, F Wu, I Memon" IEEE-Computational problem-solving (ICCP), 2013 international conference on, 139-143
- 3. Secure optimized link state routing in mobile social networks "**R Akhtar**, I Shahid" Proceedings of the Sixth International Conference on Management Science and Engineering Management 2013

	Master of Engineering	Doctorate of Engineering
1	Advanced Digital Signal Processing	Network Security
2	Wireless communications	Security Protocols
3	Traffic Engineering	Matrix Theory
4	Random Signal Processing	Numerical Analysis
5	Optical Fiber Communication	Optical Fiber Communication
6	Broad Band Communications	Optical Technology
7	Information Security	Chinese Language- level 2

Courses to Teach

- ✓ Marine Communications and Navigations
- ✓ Under Water Sensor networks
- ✓ Ship Communications
- ✓ Network Security
- ✓ Information Security
- ✓ Wireless Networks Security
- ✓ Computer Networks
- ✓ Information Security Management

PROFESSIONAL MEMEBERSHIPS

- PEC Pakistan Engineering Council
- IEEE Institute of Electrical and Electronic Engineering U.S
- IACSIT International Association of Computer Science and Information Technology CHINA

HONORS / AWARDS

- RPA-2015 (Research Productivity Award) 2015, Comsats-HEC Pakistan
- International Student of the Year Certificate (2013) at University of Electronic Science and Technology of China (UESTC). Securing 87 % and Published three Ei papers
- Merit scholarship for whole duration of PhD in Communication Engineering in China.
- Awarded Financial Grant of HEC Pakistan to attend IEEE conference in CHINA in 2011.
- Got Second position in an MS last semester.
- Reviewer of 10 International and IF journals.

PROJECTS Accepted

- 1. Post-Doctor Strat up Research grand of Jiangsu province (2016-2018)
 - Title: Content-Centric Networks (CCNs) and Content Delivery Networks (CDNs) in WSN.
- 2. Startup research grant of Jiangsu University of Science and Technology, CHINA Under Grand No JUST-3032931809.

Title: Enabling Future Technologies over Wireless Sensor Networks and Internet of Things

Project Proposals Submitted

1. Joint Research Projects between Pakistan Science Foundation and National Natural Science Foundation China, 2019.

Title: Granaries intelligence monitoring through IoT and edge computing

Between (Comsats University and Bahria University, Pakistan and Jiangsu University of Sciences and Technology, CHINA)

2. Joint research project between Ministry of Science and Technology of China and Pakistan 2019 **Title: Underwater Multi-agent communications**Between (Bahria University, Pakistan and Jiangsu University of Science and Technology, CHINA