

# Saleem Raza

## Curriculum Vitae

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in saleem-raza-phd-13035b30/

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### Research Interests

An independent and self-motivated researcher and academician with more than 12 years of experience spanning electronic, telecom, and computer networks. My passion for teaching and research is reflected through my achievements, I am truly believer that teaching and research can bring about progressive changes in society.

### Professional and Research Experience

- 2024 – date **Assistant Professor**, *The University of Larkano, Pakistan*,  
**Teaching:** Electronics and Telecommunication
- 2013 – 2023 **Assistant Professor**, *Quaid-e-Awam University of Engineering, Science & Technology, Pakistan*,  
**Teaching:** Electronics and Telecommunication, (I was on PhD study leave to Germany during job)
- 2016 – 2020 **PhD Candidate**, *Otto-von-Guericke University Magdeburg, Germany*,  
**Research areas:** Computer Communication and Wireless Networks
- 2014 – 2016 **PhD Candidate**, *University of Münster, Germany*,  
**Research areas:** Computer Communication and Wireless Networks
- 2011 – 2013 **Lecturer**, *Sukkur IBA Community College, Naushahro Feroze, Pakistan*,  
**Teaching:** Electronics and Computer Science, and Tutorials
- 2007 – 2010 **Executive Engineer Field Support WiMAX Networks**,  
**Responsibilities:** Field activities related to installation, configuration, testing, and maintenance of the WiMAX networks at customer and corporate side.

### Education

- 2014 – 2020 **Ph.D Computer Science**, *Otto-von-Guericke University Magdeburg, Germany*,  
**Dissertation title:** “Medium Access Control Protocols for Reliable Communication in Low-Power Industrial Applications”
- 2009 – 2012 **M.E Electronic Systems Engineering**, (CGPA 3.37, (v.good)), Mehran University of Engineering & Technology, Pakistan  
**Thesis title:** “WiMAX Femtocells Solutions, Strengths and Challenges”
- 2010 – 2011 **Erasmus Mundus (exchange student during masters)**, *Communication, Media and Information Technologies, Aalborg University, Copenhagen, Denmark*  
(one semester)
- 2002 – 2006 **B.E Electronic Engineering**, (CGPA 3.68 (v.good)), Mehran University of Engineering and Technology, Pakistan  
**Thesis title:** “Analysis of GSM Network and Radio Path Loss”

### Supervision

I have the privilege to supervise several undergraduate final year projects as follows

- 2023 **Design and Development of IoT Enabled Smart Car Parking System**
- 2022 **IoT-based Smart Home Using LoRa**
- 2021 **Face Detection Attendance System using Raspberry pi**

## 2015 The importance of the MAC layer for the vision of the Tactile Internet

### Expertise and Skills (Intermediate, Basic)

Programming	C++ Object Oriented Programming, C, and Python (Matplotlib, Pyplot, Pandas, Pygal, NumPy), Linux shell scripting
Simulation	OMNet++, Contiki-OS/Cooja
Basic hardware	Raspberry Pi, Arduino, ESP-32
Miscellaneous	LaTeX/Overleaf, Inkscape, Subversion, GIT, Linux (Ubuntu Debian), Windows-OS, & Mac-OS

### Awards, Grants, and Scholarships

- 2019 **Scholarship**, STiBET DAAD for 3 months grant for completing the remaining my PhD research
- 2019 **Recipient of the HEC travel grant for paper presentation at the CCNC 2019, USA**
- 2018 **scholarship**, STiBET DAAD for 3 months grant for completing the remaining my PhD
- 2017 **Best Paper Award**, for VEHICULAR 2017 conference paper, IARIA conference
- 2010 **scholarship**, Erasmus Mundus Mobility for Life, 6 months research stay at Aalborg University Copenhagen, Denmark

### Publications

#### Journals

- 2024 Muhammad Zawish, Fayaz Ali Dharejo, Sunder Ali Khowaja, **Saleem Raza**, Steven Davy, Kapal Dev, and Paolo Bellavista "AI and 6G Into the Metaverse: Fundamentals, Challenges and Future Research Trends". *IEEE Open Journal of the Communications Society* (2024), (Impact factor: 6.3)
- 2023 Weizheng Wang, Zhaoyang Han, Thippa Reddy Gadekallu, **Saleem Raza**, Jawad Tanveer and Chunhua Su "Lightweight Blockchain-Enhanced Mutual Authentication Protocol for UAVs". *IEEE Internet of Things Journal* (2023), (Impact factor: 10.6)
- 2023 Sunder Ali Khowaja, Parus Khuwaja, Fayaz Ali Dharejo, **Saleem Raza**, Ik Hyun Lee, Rizwan Ali Naqvi, Kapal Dev "ReFuSeAct: Representation fusion using self-supervised learning for activity recognition in next generation networks". *International Journal on Multi-Sensor, Multi-Source Information Fusion* (2023), (Impact factor: 18.6)
- 2023 AshuTaneja, Shalli Rani, **Saleem Raza**, Amar Jain, & Shebnam M. Sefat. "Energy efficient IRS assisted 6G network for Industry 5.0". *Scientific Reports* (2023), (Impact factor: 4.6)
- 2023 Shah Zeb, Muhammad Ahmad Rathore, Syed Ali Hassan, **Saleem Raza**, Kapal Dev, Giancarlo Fortino. "Towards AI-enabled NextG Networks with Edge Intelligence-assisted Microservice Orchestration". *IEEE Wireless Communications* (2023), (Impact factor: 12.9)
- 2023 Aneela Pathan, Tayab D. Memon, **Saleem Raza**, Rizwan Aziz. "An autocorrelation-less single-bit Wiener filter on FPGA". *Journal of Biomedical Signal Processing and Control* (2023), (Impact factor: 5.1)
- 2023 Shalli Rani, Divya, Gupta, **Saleem Raza**, Nawab Muhammad Faseeh Qureshi, Romany F. Mansour, Mahmoud Ragabd. "Security Paradigm for Remote Health Monitoring Edge Devices in Internet of Things". *Journal of King Saud University - Computer and Information Sciences* 2023 (2023), (Impact factor: 8.839)
- 2020 Faheem, Muhammad, Rizwan Aslam Butt, Basit Raza, Hani Alquhayz, Muhammad Waqar Ashraf, **Saleem Raza**, and MD Asri Bin Ngadi. "FFRP: dynamic firefly mating optimization inspired energy efficient routing protocol for internet of underwater wireless sensor networks". *IEEE Access* 8 (2020): pp.39587-39604, (Impact factor: 3.367 )

- 2019 **Raza, Saleem**, Muhammad Faheem, and Mesut Guenes. "Industrial wireless sensor and actuator networks in industry 4.0: Exploring requirements, protocols, and challenges—A MAC survey". **International Journal of Communication Systems** 32, no. 15 (2019): e4074. (Impact factor: 2.047 )
- 2018 Nikoukar, Ali, **Saleem Raza**, Angelina Poole, Mesut Güneş, and Behnam Dezfouli. "Low-power wireless for the internet of things: Standards and applications". **IEEE Access** 6 (2018): pp.67893-67926. (Impact factor: 3.367 )

#### Conferences

- 2020 Nikoukar, Ali, **Saleem Raza**, Tharakeswara Rao, Mesut Güneş, and Behnam Dezfouli. "Service Migrations in TSCH Network using Wireless Channel Estimation and Prediction." **INFORMATIK 2020 (2021)**.
- 2019 **Raza, Saleem**, Tim van Der Lee, George Exarchakos, and Mesut Güneş. "A reliability analysis of TSCH protocol in a mobile scenario." In **2019 16th IEEE Annual Consumer Communications & Networking Conference (CCNC)**, pp. 1-6. IEEE, 2019.
- 2018 **Raza, Saleem**, Alfonso Ariza Quintana, Adarsh Agnihotri, Behnam Dezfouli, and Mesut Güneş. "Dual-Mode Time-Slotted (DMTS) MAC Protocol for Industrial Control Applications." In **2018 IEEE GLOBECOM Workshops (GC Wkshps)**, pp. 1-6. IEEE, 2018.
- 2018 van der Lee, Tim, **Saleem Raza**, George Exarchakos, and Mesut Gunes. "Towards co-located TSCH networks: An inter-network interference perspective." In **2018 IEEE Global Communications Conference (GLOBECOM)**, pp. 1-6. IEEE, 2018.

## Scientific Activities

### Memberships

- 2019 - present **IEEE ComSoc**, Member **IEEE**, **Internet of Things**, Member
- 2007 - present **Pakistan Engineering Council**, Member

### External Reviewer

- Conferences IEEE PIMRC, GLOBECOM, Med-Hoc-Net, WTS, CCNC
- Journals IEEE Access, IEEE Network Magazine, IEEE Journal of Internet Technology, International Journal of Communication Systems (Wiley), Journal of Future Generation Computer Systems (Elsevier), Adhoc-networks (Elsevier), BS/BE, MS/ME and PhD thesis Evaluator

## Languages

English (**fluent**), Urdu (**fluent**), Sindhi (**native**), German (**beginner**)

## Interests and Hobbies

Reading magazine/books/newspapers, playing cricket, photography, movies, traveling

## References

**Prof. Dr. Mesut Güneş**, Chair of Communication and Networked Systems (ComSys), Institute for Intelligent Cooperating Systems, Otto-von-Guericke-University Magdeburg, Germany, email: mesut.guenes@ovgu.de

**Dr. Kapil Dev**, Assistant Lecturer, Munster Technological University, Cork, Ireland, email: kapal.dev@mtu.ie