# Dr Shuja S Ansari

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#### Bio

Dr Shuja Ansari is an experienced researcher with over 10 years of technical, research, teaching and consulting experience. He has been involved in projects worth over £6.3 million, co-authored over 40 research papers, co-edited a book on beyond 5G airborne communication networks and have directly secured over £840k of funding for various projects since 2019. Dr Ansari is part of the team that planned, installed, and commissioned an end-to-end private 5G standalone campus wide urban testbed for developing novel 5G use cases and associated technologies at the University of Glasgow. He has taught, mentored, and supervised both undergraduate and postgraduate students, and presented at several international conferences, seminars, and workshops. Dr Ansari is a senior member of the IEEE, IET, IEEE ComSoc, IEEE Young Professionals and Vehicular Technology Society. He also attains Global Talent Visa UK endorsed by the Royal Academy of Engineering.

## **Experience**

Lecturer in Autonomous Systems and Connectivity, James Watt School of Engineering,

**University of Glasgow**, Scotland (January 2022 – Present)

- Co-Investigator DCMS funded CoMP-O-RAN project (£540k)
- Co-Investigator Scotland 5G Centre funded Glasgow 5G Testbed (£1.6m)
- Project Lead EPSRC IAA funded RFID based Space and Asset Management (£45k)
- **Project Lead** Centre of Educational Development and Innovation funded <u>Conversational AI and chatbot for coursework and assignments (£25k)</u>
- Power Electronics and Engineering System Design module for Electrical Engineering Year-3
- Development and update of Staff Handbook for Glasgow College UESTC Chengdu and Hainan staff.

Post-Doctoral Research Associate/5G Use Case Implementation Lead, James Watt School of Engineering,

**University of Glasgow**, Scotland (September 2019 – January 2022)

- Planning, coordinating and developing 5G/IoT use case implementations across the research group.
- Conducting research and development on next generation mobile networks.
- Serving as Senior DevOps for 4G/5G, NB-IoT and IoT Scotland LoRaWAN networks.
- Collaborating with both industry and university-based researchers.
- Liaising with various equipment manufacturers/vendors and OFCOM for spectrum licensing.

Direct involvement in following funded projects:

- S5GC Wave-1 Urban Innovation Districts: Hired as PDRA on £1.6million funding by the Scotland 5G Centre to develop and showcase a campus wide 5G network for FWA along with novel use cases.
- EPSRC IAA RFID Desk Space Management: Co-Investigator on this EPSRC IAA funding of £55k.
- GKEF IAA RFID Crover Robot Localisation: Co-Investigator on this GKEF IAA funding of £30k.
- IAA CAV + 5G Remote: Demonstration lead for two EPSRC IAA funded projects of £30k each.

# Associate Lecturer at Glasgow Caledonian University (February 2019 – July 2019)

- Teaching (Modules: Electrical Principles and Circuit Theory, Signals and Electronics Systems, Wireless Mobile Communications)
- Member Athena Swan Charter for School of Computing, Engineering, and Built Environment

# Technical & Professional Experience

## Project Manager and Security Lead at UofG CoMPORAN project (Jan 2022 - Present)

- Management of 4 Research Assistants and day to day activities of the project team.
- Coordinating the planning, drafting and submission of project deliverables with the project team.
- Liaising with the wider consortium including DenseAir, Airspan, Radisys and Blu Wireless.
- Reviewing and signing off security documents as part of the project.

## Interim Project Manager for EPSRC funded **QUEST Program** (Sep 2019 – July 2022)

- Organising monthly meetings, disseminating agendas, meeting minutes, action items
- Facilitating break out meetings between investigators from across the University

- Liaising with Industry and Academia partners for Public Engagement and Scientific Advisory **5G Network and Application Engineer** at **Glasgow 5G Testbed** (Dec 2019 Present)
  - Led a team of 5 post-doctoral research associates and 5+ PhD students on the development and operations of the Glasgow 5G testbed for day-to-day operations and novel 5G use cases.
  - Securing planning permissions and liaising with building owners for installation of 5G masts on campus buildings.
  - Conducting site surveys for use case/application demonstrations and coordinating/collaborating with external industry partners for use case/application developments.
  - Led development and deployment of Holographic use cases showcasing true mixed reality with hologram-physical interaction using holoflex screens, GPUs and 5G transceivers.
  - Led development, deployment and demonstration of an office space management system using a combination of RFID and IoT technologies.

#### Part-time Network Support Engineer at Various Freelancing Opportunities (Dec 2015 - Nov 2019)

- Led teams of 2-3 network engineers in the upgrade and installation of network infrastructure at large and medium sized corporate buildings.
- Conducted wireless and networked site surveys using IBM survey tool and Ekahua wireless tool.
- Applied knowledge of underlying technologies and protocols such as TCP/UDP, VLANs and routing to identify network aberrant behaviour.
- Rapidly adapted to new deployment situations and environments to diagnose unique network issues.

**Internships** at **Mobile Network Operators** (Jazz and Ufone, Islamabad Pakistan) – Summer Breaks 2010-2012 and post-graduation Jul 2013 to Dec 2013

- Collaborated with cross functional teams (optimisation, planning and product management) to investigate and troubleshoot problems in RF coverage (2G/3G/4G).
- Conducted drive tests for KPIs including CSSR, Call drop rate, PS/CS RRC success rate, TCH/SDCCH congestion and throughput using NEMO Invex.
- Monitored critical infrastructure including Linux servers, Juniper routers and switches, and other platforms for regional content delivery network providing value added services.
- Assisted in basic system and network troubleshooting and management, resolving issues internally, while coordinating and escalating with appropriate teams when necessary.

#### **Education**

**Ph.D.** (Studentship) in **Engineering** - Glasgow Caledonian University, UK (Sep 2015 - Jan 2019)

M.Sc. (Distinction) in Telecommunications Engineering - Glasgow Caledonian, UK (Jan 2014 - Jun 2015)

**B.Sc.** (*Hons*) in **Electrical** (**Telecoms**) **Engineering** - COMSATS University, Pakistan (Sep 2009 - Jun 2013)

## Awards, Grants and CPD

#### **Awards**

- Best paper award in IEEE VTC SPRING 2022
- PhD studentship: Funding of over £45k
- IEEE Travel Awards: \$1000 (Riga, Latvia 2017 and Budapest, Hungary 2018)

#### **Grants**

- DCMS UKG funded COMPORAN: £470k
- SG funded Scotland 5G Centre Wave-1: £250k
- EPSRC Impact Acceleration Awards: £88k
- Glasgow Knowledge Exchange Funds: £17k
- UESTC Internal Grants: £52k

#### CPD and Skills

- ILM stage 3 'Understanding Entrepreneurship'
- End-to-end 5G and beyond mobile networks
- IoT (LoRaWAN and NB-IoT/mMTC)
- MQTT, HTTP, RTSP, SCTP, WebRTC
- MATLAB, RTL-SDR, ns-3, ICS Telecom
- OpenAirInterface5G and NokiaLTE/SABox

<sup>\*</sup>References to be provided upon request.