

**Email:**

[arifullah.giki@edu.pk](mailto:arifullah.giki@edu.pk)  
[engrz.ciit@gmail.com](mailto:engrz.ciit@gmail.com)

**Phone:**

+92-938-281026 Ext:2684

**Cell:** +92 344 9800377

**Personal web page:**

<https://bit.ly/340l3eD>

**Google Scholar:**

<https://bit.ly/2XJTjXD>

**Linkedin:**

<https://bit.ly/30Z0QE6>

**Address:**

Hostel 5, GIK Institute of Engineering Sciences and Technology, Topi, 23460 Pakistan.

Vill: Barhampatti Post  
Office: Fatehpur Tehsil:  
Khwaza Khela District  
Swat, KPK, 19130 Pakistan.

# ARIF ULLAH KHAN

BE., ME., Ph.D.,

## EDUCATION

---

**Ph.D. in Electronics Engineering (2017 - till now)**

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

Study Emphasis: Wireless Communication and Networking.

PhD Thesis Topic/Title: Performance Analysis of Efficient Small Cells Deployment in Next Generation Cellular Network.

Supervisor: [Dr. Ziaul Haq Abbas](#)

**Master of Science in Electrical Engineering (2014 - 2016)**

COMSATS University, Abbotabad, Pakistan.

Study Emphasis: Wireless Communication and Signal Processing.

MS Thesis Topic/Title: Precise Estimation of Soft output for Sphere Decoding in MIMO OFDM System.

Supervisor: [Prof. Dr. Shahid Khattak](#)

**Bachelor of Science in Electronics Engineering (2008 - 2012)**

Balochistan University of Information Technology, Engineering and Management Sciences, Quetta, Pakistan.

Study Emphasis: Electronics and Communication.

BS Thesis Topic/Title: Real time Tracking, Monitoring and Controlling of Vehicles through GPS and GSM.

## RESEARCH INTEREST

---

- Stochastic Geometry based Modelling of 5G and B5G Cellular Networks
- Heterogeneous Cellular Networks
- Millimeter wave communications
- D2D Communications
- UAVs Assisted Communication
- Machine Learning in Communication

## PROFESSIONAL/TEACHING EXPERIENCE

---

**Graduate Assistant/Lab Instructor (2017 - 2020)**

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan.

Responsibilities:

- Assisted as Teaching Assistant (TA) in Linear Circuit Analysis (EE-211) course (Fall 2017).
- Assisted as lab instructor in Electronics Devices and Circuit Lab (EE-231L) (Spring 2018-2019).
- Assisted as lab instructor in Signal and System Lab (EE-351L) (Fall 2018-2019).

**Lecturer (2015 - 2016)**

COMWAVE Institute of Information Technology, Abbotabad, Pakistan.

Responsibilities:

- Teaching and Departmental Responsibilities.

**Engineer Trainee (2013 - 2014)**

Egyptian-Pakistani Telecommunication Company Limited.

Responsibilities:

- Deal with issues related to operation and maintenance of mobile network.

**Email:**

[arifullah.giki@edu.pk](mailto:arifullah.giki@edu.pk)  
[engrz.ciit@gmail.com](mailto:engrz.ciit@gmail.com)

**Phone:**

+92-938-281026 Ext:2684

**Cell:** +92 344 9800377

**Personal web page:**

<https://bit.ly/340l3eD>

**Google Scholar:**

<https://bit.ly/2XJTjXD>

**Linkedin:**

<https://bit.ly/30Z0QE6>

**Address:**

Hostel 5, GIK Institute of  
Engineering Sciences and  
Technology, Topi, 23460  
Pakistan.

Vill: Barhampatti Post

Office: Fatehpur Tehsil:

Khwaza Khela District

Swat, KPK, 19130 Pakistan.

## RESEARCH AND PUBLICATION

---

### Journals (Cumulative IF = 14.298)

- J1 Ziaul Haq Abbas, Arif Ullah, Ghulam Abbas, Fazal Muhammad, Frank Yong Li, "Outage Probability Analysis of User-Centric SBS based HCNets Under Hybrid Rician/Rayleigh Fading," In *IEEE Communication Letters.*, pp. 1–1, Dec, 2019. DOI: [10.1109/LCOMM.2019.2959578](https://doi.org/10.1109/LCOMM.2019.2959578) (IF. 3.419)
- J2 Arif Ullah, Ziaul Haq Abbas, Ghulam Abbas, Fazal Muhammad, Lei Jiao, "Performance Analysis of User-Centric SBS Deployment with Load Balancing in Heterogeneous Cellular Networks: A Thomas Cluster Process Approach," *Computer Networks*, vol. 170, pp. 107120, 2020. DOI: [10.1016/j.comnet.2020.107120](https://doi.org/10.1016/j.comnet.2020.107120) (IF. 3.11)
- J3 Arif Ullah, Ziaul Haq Abbas, Ghulam Abbas, Fazal Muhammad, Lei Jiao, "Capacity Driven SBS Deployment in Heterogeneous Cellular Networks: Outage probability and Rate coverage Analysis," In *Transaction on Emerging Telecommunications Technologies*, 2019. DOI: [10.1002/ett.3876](https://doi.org/10.1002/ett.3876) (IF. 1.594)
- J4 Arif Ullah, Ziaul Haq Abbas, Fazal Muhammad, Irfanullah, Alam Zeb, Shahid Khat-tak, "Likelihood Ascent Search Aided Sphere Decoding Receiver for M-QAM based MIMO System," *Under review in IET Communication.* (IF. 1.664)
- J5 Hammad Ahmad, Muhammad Mahmood Ali, Arif Ullah, Arbab Abdur Rahim, Hus-nul Maab, Mahmood Khan, "An Ultra-Thin Beam Splitter Design Using a-Si:H Based on Phase Gradient Metasurfaces," *Journal of Nanoelectronics and Optoelec-tronics*, vol. 14, pp. 1339-1343(5), September 2019. DOI: [10.1166/jno.2019.2614](https://doi.org/10.1166/jno.2019.2614) (IF. 0.771)
- J6 Arif Ullah, Ziaul Haq Abbas, Fazal Muhammad, Ghulam Abbas, Sunghwan Kim, "Uplink Performance Analysis of User-centric Small Cell Aided Dense HCNets with Uplink/Downlink Decoupling," *Accepted in IEEE Access.* DOI: [10.1109/ACCESS.2020.3015915](https://doi.org/10.1109/ACCESS.2020.3015915) (IF. 3.74)

### Conferences

- C1 Arif Ullah, Ziaul Haq Abbas, Ghulam Abbas, Fazal Muhammad, "Analysis of Out-age Probability and Rate Coverage in Heterogeneous Cellular Networks with joint uniform and clustered users," *2nd IEEE International Multi topic Conference (IN-MIC)*, Islamabad, Pakistan 29-30 January 2019. DOI: [10.1109/INMIC48123.2019.9022767](https://doi.org/10.1109/INMIC48123.2019.9022767)

## SPECIAL TRAINING/CERTIFICATION/LANGUAGE PROFICIENCY

---

### Seminars

- Attended seminar on "Writing Good Research Paper".

### Language Proficiency

- English (IELTS (to be appeared soon))
- Urdu
- Pashtu

## MEMBERSHIPS/FELLOWSHIPS/AWARDS

---

### Membership, Pakistan Engineering Council

Registered Engineer with Pakistan Engineering Council, Reg #: ELECTRO/16479

### Membership, Institute of Electrical and Electronics Engineers

Graduate student member Institute of Electrical and Electronics Engineers (IEEE), Mem-ber-ship number: 95038221

### Postgraduate Scholarship, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology

Awarded fully funded Scholarship with monthly stipend during PhD studies

### Prime Minister Scholarship, COMSATS University, Abbotabad

Awarded with PM full fee reimbursement scholarship during master studies

**Email:**

[arifullah.giki@edu.pk](mailto:arifullah.giki@edu.pk)  
[engrz.ciit@gmail.com](mailto:engrz.ciit@gmail.com)

**Phone:**

+92-938-281026 Ext:2684

**Cell:** +92 344 9800377

**Personal web page:**

<https://bit.ly/340l3eD>

**Google Scholar:**

<https://bit.ly/2XJTjXD>

**Linkedin:**

<https://bit.ly/30Z0QE6>

**Address:**

Hostel 5, GIK Institute of  
Engineering Sciences and  
Technology, Topi, 23460  
Pakistan.

Vill: Barhampatti Post  
Office: Fatehpur Tehsil:  
Khwaza Khela District  
Swat, KPK, 19130 Pakistan.

## SKILLS RELEVANT TO RESEARCH

---

- LaTeX, Microsoft Office, Power point and Excel, for Typesetting and Documents Preparation
- MATLAB for Simulation, Data Analysis and Visualisation
- C/C++ and Assembly Language for Programming
- Simulink, Advance Design System (ADS), High Frequency Structured Simulation (HFSS) and CST Microwave Studio for Microwave Application
- Pspice, Electronic Workbench and Ansys Workbench for circuit designing
- Mathematica for Numerical Analysis

## REFERENCES

---

**Dr. Ziaul Haq Abbas**

Associate Professor, Faculty of Electrical Engineering, GIK Institute of Engineering Sciences and Technology, Topi, 23640 Pakistan.

**Email:** [ziaul.h.abbas@giki.edu.pk](mailto:ziaul.h.abbas@giki.edu.pk)

**Phone:** +92 (938) 281026 Ext: 2275

**Prof. Dr. Shahid Khattak**

Professor and Chairman, Department of Electrical Engineering, COMSATS University, Abbotabad, 23640 Pakistan.

**Email:** [skhattak@cusit-atd.edu.pk](mailto:skhattak@cusit-atd.edu.pk)

**Phone:**

**Dr. Ghulam Abbas**

Associate Professor, Faculty of Computer Sciences and Engineering, GIK Institute of Engineering Sciences and Technology, Topi, 23640 Pakistan.

**Email:** [abbasg@giki.edu.pk](mailto:abbasg@giki.edu.pk)

**Phone:** +92 (938) 281026 Ext: 2739