

ATHAR WASEEM

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Date of Birth: 27-08-1987
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OBJECTIVE

To obtain a challenging technical/teaching position that suits my skills, experience, and background. I can play a vital role in an organization's expansion with an opportunity to grow professionally. I am an effective team player, well trained, self-motivated, reliable, and skilled individual with practical engineering skills along with management experience.

EDUCATION

PhD Electronics Engineering, International Islamic University (IIU), Islamabad, Pakistan
08/2014-11/2020 (degree completion expected in 11/2020)

- **Modules:** advanced engineering mathematics, statistical digital signal processing, detection and estimation theory, advance digital communication II, advance linear control system, special topics in digital communication.
- **Specialization:** RF, wireless communication, and signal processing
- **Research Area:** Compressive Sensing Based Channel Estimation for Massive MIMO Communication Systems.

MS Electrical Engineering with emphasis on Radio Communications, Blenkinge Institute of Technology (BTH) Karlskrona, Sweden
09/2010-08/2013

- **Modules:** digital signal processing, multidimensional signal processing, applied signal processing, capacity analysis, neural networks, advance filter design, radio communications, wireless networks, digital transmission, antenna theory.
- **Specialization:** Radio Communications.
- **Research Area:** Channel Estimation for MIMO Systems.

BS Electronic Engineering, Muhammad Ali Jinnah University, Islamabad, Pakistan
08/2005-06/2009

- **Modules:** electronics, digital communication, mobile communication, antenna theory and design, microwave engineering, satellite communication, optical communication, computer communication and networks, computer programming (C++), microprocessor interfacing, signal and systems, control systems, VLSI design, circuit analysis, introduction to management and human resource management, engineering mathematics.
- **Final Year Project:** Level Flight Controller for a remote-control aircraft.

PROFESSIONAL EXPERIENCE

Lecturer at International Islamic University (IIU), Islamabad, Pakistan
(03/2014-to date)

Currently serving as a Lecturer at Department of Electrical Engineering (DEE). Responsibilities include:

- To teach undergrad. level courses: Signals and Systems, Digital Signal Processing, Communication Systems, Probability and Random Variables, Applied Calculus, Complex Variables and Transforms, Wireless Communication, Satellite Communication.
- To supervise final year projects.

- Counselor, IEEE IIU Student Branch
- Member, Final Year Project Committee.
- To perform plagiarism evaluation of MS/PhD Thesis.
- In-charge, FET Sports Committee.
- In-charge, IIU Hockey Team.
- **Also worked as:** In-charge Seminar and Workshop Committee, In-charge SPECTRA 2017 (Technical Events, DEE), Member, protocol committee DEE, Member, Open House Organizing Committee, Member, Admission Test Organizing Committee, Member, Graduate Program Committee.

Conference Executive Chair/Founding Member

3rd International Conference on Electrical, Communication, and Computer Engineering
ICECCE 2021 (Kuala Lumpur, Malaysia)

<http://icecce.com/>

Conference Technical Chair

6th International Conference on Power Generation Systems and Renewable Energy Technologies
PGSRET 2021 (Islamabad, Pakistan)

www.pgsret.com

Conference Executive Chair/Founding Member

2nd International Conference on Electrical, Communication, and Computer Engineering
ICECCE 2020 (Istanbul, Turkey)

<http://icecce.com/>

Conference Technical Chair/Founding Member

1st International Conference on Future Trends in Computer, Electrical and Electronics Engineering
FTCEEE 2021 (Istanbul, Turkey)

www.ftceee.com

Conference Technical Chair

5th International Conference on Power Generation Systems and Renewable Energy Technologies
PGSRET 2019 (Istanbul, Turkey)

<http://pgsret.iiu.edu.pk/>

Conference Technical Chair/Founding Member

1st International Conference on Electrical and Computer Engineering
ICECE 2019 (Swat, Pakistan)

<http://icecce.com/>

Conference Technical Chair

International Conference on Intelligent Systems Engineering
ICISE (Islamabad, Pakistan)

<http://icise.iiu.edu.pk>

Conference Honorary Advisor

European Conference on Renewable Energy Systems
ECRSE

www.ecres.net

7th International Conference on Computer and Communication Engineering
ICCCE 2018 (Kuala Lumpur, Malaysia)

<http://www.iiu.edu.my/iccce/18/>

Conference Technical Chair

4th International Conference on Power Generation Systems and Renewable Energy Technologies
PGSRET 2018 (Islamabad, Pakistan)

<http://www.iiu.edu.pk/conferences/pgsret2018/index.html>

Chair, Publication & Registration

2nd International Conference on Intelligent Systems Engineering
ICISE 2018 (Kuala Lumpur, Malaysia)

<http://www.iiu.edu.my/icise/>

Chair, Publication & Registration

1st International Conference on Intelligent Systems Engineering
ICISE 2016 (Islamabad, Pakistan)

<http://www.iiu.edu.pk/icise2016/>

Responsibilities:

- Online paper submission system manager.
- To manage, publicity, review, publication, sessions and registration processes.
- Member, technical program committee.
- Corresponding person to the authors, reviewers, IEEE and technical co-sponsor.
- Conference proceedings manager and editor.
- Member, review committee.
- Webmaster of the conference website.

2nd International Conference on Power Generation Systems and Renewable Energy Technologies
PGSRET 2015 (Islamabad, Pakistan)

Responsibilities:

- To install and manage online paper submission system.
- To customize and manage conference website.
- IEEE matters.

Lecturer at Abasyn University Peshawar, Pakistan
(08/2013-03/2014)

Served as a Lecturer and Lab Coordinator at Department of Electrical Engineering.

Responsibilities include:

- To teach undergrad. level courses.
- To supervise final year projects.
- To prepare progress report of the labs.
- To monitor the purchasing of the lab equipments, record maintenance of the lab equipment & components repairs, troubleshooting of the faulty Equipment.
- Established various labs setup and designed their lab manuals.
- To arrange training sessions for the lab-engineers.

Internee at Telecom Foundation, Pakistan

During my job tenure in Telecom Foundation, I worked in the Technical Cell. I was responsible for monitoring various ongoing projects; one of the major projects was underground laying of optical fiber cable.

Internee at PTCL (Etisalat), Pakistan

During my internship tenure, I worked in MMBB (Multimedia and Broad Band) department. In PTCL I had the opportunity to work with a competent team working on the deployment of IPTV infrastructure in Pakistan.

Internee at NDC Pakistan

My key responsibilities while working in NDC include:

- To acquire and install sensor's data in LABVIEW through dacq. Card.

- Mathematical modeling using aerodynamic equations.

Internee at MOBILINK (Orascom) Pakistan

Mobilink is the 2nd biggest operator in Pakistan. I worked in OAN (Operations Access Network) department. The OAN department in Mobilink is responsible for network monitoring, problem resolutions and field support. My major responsibilities include:

- Radio access network monitoring through UNIX based servers
- Field support
- Problem escalation
- Work order implementation

PUBLICATIONS

- **Athar Waseem**, Aqdas Naveed, Sardar Ali, Muhammad Arshad, Haris Anis, Ijaz Mansoor Qureshi "Compressive Sensing based Channel Estimation for Massive MIMO Communication Systems," *Wireless Communications and Mobile Computing*, Article ID 6374764, Volume 2019, DOI: 10.1155/2019/6374764 (**Impact Factor 1.6**)
- **Athar Waseem**, Aqdas Naveed, "Performance Analysis of Compressive Sensing based Channel Estimation Approaches for 5G Communication Systems" (submitted in *Wireless Communications and Mobile Computing*)
- S. M. Ali, **Athar Waseem**, Zahid Ullah, "Energy Management Models: A Game-Theoretic Optimization Techniques for Energy Management in Smart Grid," in *Proceedings of the 5th International Conference on Power Generation System and Renewable Energy Technology (PGSRET '19)*, August 2019
- Muhammad Umar Khan, Muhammad Atif Imtiaz, Sumair Aziz, Zeeshan Kareem, **Athar Waseem**, Muhammad Ammar Akram, "System Design for Early Fault Diagnosis of Machines using Vibration Features," in *Proceedings of the 5th International Conference on Power Generation System and Renewable Energy Technology (PGSRET '19)*, August 2019
- Abdul Basit, Shaddrack Yaw Nusenu, Wasim Khan, Shafqatullah Khan, Samad Wali, Muhammad Arshad, **Athar Waseem**, "Adaptive Main Lobe/Sidelobes Controls Selection in FDA based Joint Radar-Communication Design," in *Proceedings of the 1st International Conference on Electrical, Communication, and Computer Engineering (ICECCE '19)*, July 2019
- N. Shaukat, Zahid Ullah, Bilal Khan, S. M. Ali, **Athar Waseem**, "An Information-Based Waste Management Approach for Pakistan," in *Proceedings of the 1st International Conference on Electrical, Communication, and Computer Engineering (ICECCE '19)*, July 2019
- Danish Nazir, Maryam Fizza, **Athar Waseem**, Sheraz Khan, "Vehicle Detection on Embedded Single Board Computers," in *Proceedings of the 7th International Conference on Computer and Communication Engineering (ICCCE '18)*, pp. 480–485, September 2018
- **Athar Waseem**, Aleem Khaliq, Rehan Ahmed, Fahad Munir "Channel Equalization for MIMO-FBMC Systems," in *Proceedings of the 1st International Conference on Intelligent Systems Engineering (ICISE '16)*, pp. 272–277, January 2016
- Aleem Khaliq, **Athar Waseem**, Fahad Munir, Rehan Ahmed "Comparison of adaptive noise cancelers for ECG signals in wireless biotelemetry system," in *Proceedings of the 1st International Conference on Intelligent Systems Engineering (ICISE '16)*, pp. 181–184, January 2016
- Syed Ussama Ali, M. Zamurad Shah, Raza Samar, **Athar Waseem**, "Wind Estimation for Lateral Path following of UAVs using Higher Order Sliding Mode," in *Proceedings of the 1st International Conference on Intelligent Systems Engineering (ICISE '16)*, pp. 364–371, January 2016
- Taimoor Ahmad, Kalimullah, Ghulam Hafeez, Imran Khan, Safeer Ullah, **Athar Waseem** and Zahid Ullah, "Energy demand control under dynamic price-based demand response program in smart grid," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20)*, June 2020
- Muhammad Umar Khan, Sumair Aziz, Javeria Mumtaz Ch., Anber Shahjehan, Atif Imtiaz, **Athar Waseem**, "Detection of Acute Coronary Syndrome using Electrocardiogram Signal Analysis" in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20)*, June 2020
- Kaleem Ullah, Zahid Ullah, Irfanullah Khan, Fazale Wahab, Waqar Uddin, **Athar Waseem**, Aun Haider, Ghulam Hafeez, Sahibzada Muhammad Ali, Khadim Ullah Jan, "Load Forecasting Schemes and Demand Response Programs within Smart Grid," in *Proceedings of the 2nd International Conference on Electrical,*

Communication, and Computer Engineering (ICECCE '20), June 2020

- Zahid Ullah, Rafiq Asghar, Irfanullah Khan, Kaleem Ullah, **Athar Waseem**, Fazale Wahab, Aun Haider, Sahibzada Muhammad Ali, Khadim Ullah Jan, "Renewable Energy Resources Penetration within Smart Grid: An Overview," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20), June 2020*
- Sumair Aziz, Muhammad Ahmed, Syed Zohaib Hassan Naqvi, Muhammad Umar Khan, Atif Imtiaz, **Athar Waseem**, "Machine Bearing Fault Diagnosis System using Tri-Axial Accelerometer," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20), June 2020*
- Syed Zohaib Hassan Naqvi, Mohammad Ahmad Choudhary, Zain Tariq, **Athar Waseem**, "Automated Detection and Classification of Multichannel Lung Signals using EMD," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20), June 2020*
- Muhammad Atif Imtiaz, Sumair Aziz, Ahmed Zaib, Aiman Maqsood, Muhammad Umar Khan, **Athar Waseem**, "Wearable Scene Classification System for Visually Impaired Individuals," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20), June 2020*
- Muhammad Umar Khan, Sumair Aziz, Areeba Zainab, Hamza Tanveer, Khushbakht Iqtidar, **Athar Waseem**, "Biometric System using PCG Signal Analysis: A New Method of Person Identification," in *Proceedings of the 2nd International Conference on Electrical, Communication, and Computer Engineering (ICECCE '20), June 2020*
- Atif Elahi, **Athar Waseem**, Ijaz Mansoor Qureshi and Noor Gul Interference, "Prevention in Cognitive Radio Networks," in *Proceedings of the 2nd International Conference on Intelligent Systems Engineering (ICISE '18)*, pp. 216–220, March 2018 (Accepted)
- Sajjad Ahmed Ghauri, Sheraz Alam Khan, Asad Hussain, **Athar Waseem** and Fahad Munir, "Automatic Digital Modulation Classification using Gabor Filter Features," in *Proceedings of the 2nd International Conference on Intelligent Systems Engineering (ICISE '18)*, pp. 238–244, March 2018 (Accepted)
- Saqib Masood, Sajjad Ahmed Ghauri, Sheraz Alam Khan and **Athar Waseem**, "Automatic Modulation Classification Using Polynomial Classifier," in *Proceedings of the 2nd International Conference on Intelligent Systems Engineering (ICISE '18)*, pp. 245–250, March 2018 (Accepted)

FUNDED PROJECTS

- Smart Apiaries (FYP: Funded by NGIRI/IGNITE Ministry of IT and Telecom, Govt. of Pakistan)
- The Design of Vehicle Classification System on Low Cost Embedded Board (FYP: Funded by NGIRI/IGNITE Ministry of IT and Telecom, Govt. of Pakistan)

FACULTY AND STUDENT EXCHANGE PROGRAMS FOR IIUI

Brought following exchange programs for DEE/FET at IIUI:

- Erasmus+ Faculty and Student Exchange Program with Aksaray University, Turkey (MoU Signed between IIU and Aksaray University)
- Erasmus+ Faculty and Student Exchange Program with İstanbul University Cerrahpaşa, Turkey (MoU received and in progress)

INTERNATIONAL AND NATIONAL COLLABORATION FOR IIUI

Brought following collaboration for DEE/FET at IIUI:

- CMI LAB, UK
- IEEE Communication Society and Vehicular Technology Society Joint Chapter, Malaysia
- Ghazi University, Turkey
- Multimedia University Malaysia
- Aksaray University, Turkey
- İstanbul University Cerrahpaşa, Turkey
- Technical University of Malaysia
- University of Buner, Pakistan
- Syndicate of Embedded Electronics Design (SEED)/DEE, UET Taxila
- European Conference on Renewable Energy Systems (ECRSE)

PROJECTS SUPERVISED

- Smart Apiaries
- Solar Based Water Dispenser System
- The Design of Vehicle Classification System on Low Cost Embedded Board
- Automated Toll Collection System for Automobiles using RFID Technology
- IoT based Industrial Automation System
- Pattern Classification of Five Fingers Electromyography (EMG) Signals
- GUI Based Design of Analog Amplifier and Detector for ECG Analysis.
- Digital Stethoscope
- Quad copter for small range surveillance
- Efficient and Simplified Adaptive Noise Cancelers for ECG Sensor based Remote Health Monitoring

EDUCATIONAL PROJECTS

- MIMO Channel Equalization and Symbol Detection Using Multilayer Neural Network.
- Radial Basis Function (RBF) Network based MIMO-OFDM Channel Equalizer.
- Designed a PID controller for an aircraft which maintains a certain height. (Level Flight Controller).
- Designed an embedded system to control the pitch moments of an RC aircraft
- Security system designing by interfacing 8051 microcontroller (Programmed in C++).
- Islamabad Hockey Association management system in C++.
- Encryptor and Decryptor designing in MATLAB.
- Designed a PID controller to maintain a fuel to air ratio in automobiles.
- Designed a single queue server to accommodate multiple and variable traffics in Matlab (Graphical User Interface).
- Hoffman Coding and Decoding. (Implementation on Matlab).
- Designed a current steering circuit using Bipolar Junction Transistors.

WORKSHOPS/SEMINARS/CONFERENCES

- Attended 2-Days Workshop on Outcome Based Education (OBE) System.
- Participated as a paper presenter in 7th International Conference on Computer and Communication Engineering (ICCCCE 2018) (Kuala Lumpur, Malaysia)
- Participated as a Poster contributor in IEEE Thesis Poster Competition at Blekinge Institute of Technology, Karlskrona, Sweden.
- Attended HEC 18th MTFDP Cascading training: i) teaching as profession ii) student learning psychology
- Attended Workshop on Robotics at IIUI.
- Attended National workshop on Power electronics and renewable integration at IIUI.
- Participated in multiple international conference as paper presenter and organizer.

SEMINARS ORGANIZED AT IIUI

- i) "Research Article Writing", Prof. Dr. Sulaiman Wadi Harun, Malaysia
- ii) "Research: what, where and how-An electrical engineers odyssey" by Dr. V. Jagadeesh Kumar, India
- iii) "Writing Articles for the IEEE Instrumentation and Measurement Magazine" by Kim Fowler, USA
- iv) "Writing IEEE Transaction paper" Prof. Yan Yong, UK
- v) "The Role of arranging conference/symposium for professional connectivity" by Prof. Nasir Taib, Malaysia
- vi) "Evolutionary computing Techniques" by Dr. Ijaz Mansoor Qureshi
- vii) "Role of PTA and areas of collaboration with Academia" by Dr. Syed Ismail Shah, Chairman PTA
- vii) Organized National workshop on Power electronics and renewable integration at IIUI.

TOOLS AND COMPUTING SKILLS

- C++ Language.
- MS Office.
- Wordpress

- MATLAB
- LABVIEW
- AAA (advance aircraft analysis) Software
- PROFILI (aircraft analysis Software)

GENERAL SKILLS

- Strong report writing skills
- Proficient at technical presentation
- Excellent organization and controlling skills in terms of time management and quality assurance
- Excellent communication skills
- Thorough understanding of project implementation process

ACHIEVEMENTS

- Arrangement of many events including workshops, seminars, entertainment events while being part of Imtizaaj event management company
- Represented different departments up to national level as a hockey player.
- Worked as teaching assistant and student assistant for different courses

REFERENCES

Prof. Dr. Aqdas Naveed Malik

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International Islamic University, Islamabad, Pakistan

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Prof. Dr. Amer Iqbal Bhatti

Professor, Capital University of Science and Technology, Islamabad, Pakistan

Email : aib@cust.edu.pk