

DR. IRFAN AHMED

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EDUCATION

- **PhD** (Electrical Engineering) **2011**
Michigan Technological University, Houghton MI, USA.
- **M. E.** (Electrical Engineering) **2005**
NED University of Engg. & Tech. Karachi Pakistan
- **B. E.** (Electrical Engineering) **1994**
NED University of Engg. & Tech. Karachi Pakistan

EXPERIENCE

Academic:

- NED University of Engg. & Tech. Karachi Pakistan
Associate Professor **2012 -to date**
Develop Syllabus, Administer Labs, Supervise PhD /Master's Thesis
- NED University of Engg. & Tech. Karachi Pakistan
Assistant Professor **2005-2012**
- NED University of Engg. & Tech. Karachi Pakistan
Lecturer **2001-2005**

Industrial / Administrative:

- NED University of Engg. & Tech. Karachi Pakistan
Controller of Examination 2015- to date
- Black & Veatch International (US based), Karachi
Electrical Engineer **1996-2001**
Startup & Commissioning of Power Plant E & I Equipment
- Zelin (Pvt) Ltd.
Electrical Engineer **1994-1996**
Estimation, Costing, and Bidding of Turnkey Projects

PUBLICATIONS

- See attached List

PROJECTS

- Funded by National Grassroots ICT Research Initiative of National ICT R&D Fund
 - Design & Fabrication of Wireless System Based Smart Wheelchair **2016**
 - Design & Fabrication of Wearable Antenna for BAN **2015**
 - Design & Fabrication of a Patch Antenna on Non-Conventional substrate **2013**

AWARDS

- Dean's Award of Outstanding Scholarship, Michigan Tech USA **2011**
- Doctoral Finishing Fellowship, Michigan Tech USA **2011**
- Faculty Development Fellowship for PhD, NED University Karachi **2007**

COMMUNITY WORK

- Member “National Curriculum Review Committee” of Higher Education Commission Pakistan for the subject of Telecom Engineering, **2014-15**
- Member “National Curriculum Review Committee” of Higher Education Commission Pakistan for the subject of Telecom Systems, **2013-14**
- Member Technical Committee of Pakistan Standard Quality Control Authority for “Telecommunications and Information Exchange between Systems (I.C.T-TC-1)” **2013**
- Reviewer for research work in following journals
 - IEEE Antennas and Wireless Propagation Letters
 - Ad Hoc & Sensor Wireless Networks
 - Progress in Electromagnetic Research (PIER, PIER B,C,M, PIER Letters)

RESEARCH INTERESTS

- Wireless Channel Modeling, Wireless Local Positioning System,
- Nano Embedded Wireless Sensors, WSNs
- Antenna Design, Electromagnetic Compatibility
- Green Energy / Alternate Energy.
- Wireless Power Transmission

LANGUAGES

- Urdu, English, Sindhi, Punjabi, Arabic

MEMBERSHIPS

- Life Member, Pakistan Engineering Council
- Fellow Pakistan Academy of Engineering

PERSONAL

- Date of Birth: 21-05-1970
- Nationality: Pakistani

LIST OF PUBLICATIONS BY DR. IRFAN AHMED

Journal Publications:

10	Akhter Saeed, Irfan Ahmed , Muhamad I. Aslam, Tahir Maik, Syed M. Usman Ali, “Improving energy efficiency of Wireless Sensor Network through optimum selection of cluster heads,” <i>Bahria University Journal of Information & Communication Technologies</i> , Submitted.
9	Tahniyat Aslam, Irfan Ahmed , Muhammad I. Aslam, Syed M. Usman Ali, Tahir Malik, “Direction of Arrival Estimation in the presence of Scatterer in noisy environment”, <i>Advanced Electromagnetics</i> , Vol. 6, no. 3, pp.33-40, 2017.
8	Muhammad Sohail Ibrahim, Irfan Ahmed , Muhammad I. Aslam, Muhammad Ghazaal, Muhammad Usman, Kamran Raza and Shujaat Khan, “A Low Cost FPGA based Cryptosystem Design for High Throughput Area Ratio” <i>International Journal of Advanced Computer Science and Applications (IJACSA)</i> , Vol. 8, no. 2, pp-385-393, 2017.
7	Muhammad Usman, Irfan Ahmed , Muhammad I. Aslam, Shujaat Khan, and S. M. Usman Ali, “SIT: A Lightweight Encryption Algorithm for Secure Internet of Things” <i>International Journal of Advanced Computer Science and Applications (IJACSA)</i> , Vol. 8, no. 1, pp-402-411, 2017.
6	Sana Aijaz, Irfan Ahmed , Muhammad I. Aslam, and Syed M. Usman Ali, “Spectrum Sensing in Cognitive Radios - Techniques, Issues and Challenges,” <i>International Journal of Information and Communication Technology Trends</i> , Vol. 2, No. 1, pp. 1-4, 2015.
5	Immad Girach, Muhammad I. Aslam, Irfan Ahmed , Syed M. Usman Ali and Muhammad Khalid, “Photonic Band Gap Materials- Theory, Techniques and Application,” <i>Bahria University Journal of Information & Communication Technologies</i> , Vol. 8, No. 1, pp. 126-129, 2015.
4	Akhter Saeed, Irfan Ahmed , “Wireless Sensor Networks – A Comprehensive Study ,” <i>International Journal of Information and Communication Technology Trends</i> , Vol. 1, 2014.
3	Irfan Ahmed and Warren F. Perger” Effect of Ground on Antenna Mutual Impedance for DOA Estimation Using Dipole Arrays” <i>Progress in Electromagnetics Research (PIER C)</i> , Vol. 46, page 179-185, 2014
2	Irfan Ahmed and Warren F. Perger “Direction Finding in the Presence of Near Zone Resonant Size Scatterers”, <i>Progress in Electromagnetics Research (PIER B)</i> , Vol. 56, page 219-234, 2013
1	Irfan Ahmed , Warren F. Perger, and Seyed A. Zekavat, “Effects of Ground Constituent Parameters on Array Mutual Coupling for DOA Estimation,” <i>International Journal of Antennas and Propagation</i> , vol. 2011, Article ID 425913, 5 pages, 2011. doi:10.1155/2011/425913

Conference Publications:

9	Talib Abbas, Faizan Qamar, Irfan Ahmed , Kaharudin Dimiyati, Mohammed B. Majed “Propagation Channel Characterization for 28 and 73GHz Millimeter-Wave 5G Frequency Band” IEEE Scored Putrajaya, Malaysia December 2017
8	Zaheer Abbas Balouch, Muhammad I. Aslam, Irfan Ahmed , “Energy Efficient Image Encryption Algorithm” <i>International conference on Innovations in Electrical Engineering and Computational Technologies</i> , Karachi, Pakistan, April 2017.
7	Sundus Ali, Muhammad I. Aslam, Irfan Ahmed , “MIMO channel modeling and capacity analysis using 3-D Spatial Statistical Channel Model for Millimeter Wave Outdoor Communication,” <i>14th International Bhurban Conf. on Applied Sciences and Technology</i> , Islamabad, Pakistan, January 2017
6	Rana Khan, Tehzeb Jamal, Muhammad I. Aslam, Irfan Ahmed , “Comparative Analysis of Different Patch Antennas”, <i>Proceedings of the 1st International Electrical Engineering Congress</i> , Karachi, 13-14 May, 2016.
5	Usama Fareed Ahmad, Muhammad ShahRukh Khan, Muneeb ur Rahman, S.M. Daniyal Hasan Shah, Irfan Ahmad , and Muhammad I. Aslam, “Wireless System Based Smart Wheelchair ”, <i>Proceedings of the 1st International Electrical Engineering Congress</i> , Karachi, 13-14 May, 2016.
4	Sundus Ali, Muhammed I. Aslam, Irfan Ahmed , “Analysis of Proportional Fairness Utility Function and Interference Mitigation in Heterogeneous Cellular Networks”, <i>31st IEEE P Multi-topic International Symposium</i> , Karachi, 16th-17th March 2016.
3	Radha Mohanlal, Muhammad I. Aslam, Irfan Ahmed , “Radio resource allocation techniques for downlink transmission in LTE-Advanced”, <i>4th International Conference on Electrical, Computer, Mechanical and Mechatronics Engineering (ICE2016)</i> , Dubai, Emirates, 4-5 February 2016,
2	Shafaq Mustafa, Muhammad I. Aslam, Irfan Ahmed , “Analysis of Electromagnetic Wave Propagation through Photonic Crystal Fibers,” <i>International Conference on Advanced Materials and Process Engineering</i> , Karachi, 14-15 December, 2015.
1	Syed Asad Ali Shah, Muhammad I. Aslam, Irfan Ahmed , and Syed M. Usman Ali1, “Near-Perfect Metamaterial Absorber for the Visible Spectrum,” <i>International Conference on Advanced Materials and Process Engineering</i> , Karachi, 14-15 December, 2015.