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Dr. Muhammad Imran Aslam

OBJECTIVE:

To provides summary of my academic and professional activities.

QUALIFICATION:

Doctor of Philosophy (Electrical Engineering) Michigan Technological University, Houghton MI-49931.	April 2012	CGPA: 4.0
Master of Engineering in Electrical Engineering NED University of Engineering and Technology, Karachi, Pakistan.	June 2005	CGPA: 3.9
Bachelor of Engineering in Electrical Engineering NED University of Engineering and Technology, Karachi, Pakistan.	April 2001	82% with distinction
Higher Secondary Certificate (Pre Engineering)	1996	77.7%
Secondary School Certificate (Science Group)	1994	82.3%

WORK EXPERIENCE:

NED University of Engineering and Technology, Karachi

Associate Professor	Electronic Engg. Dept. (Telecom faculty)	October 2012 to date
Assistant Professor	Electronic Engg. Dept. (Telecom faculty)	May 2007 to September 2012
Assistant Professor	Electrical Engineering Department	June 2005 to May 2007
Lecturer	Electrical Engineering Department	August 2001 to June 2005
M. Engg. Coordinator	Electronic Engg. Dept. (Telecom faculty)	December 2013 to date
Co-chairman	Electronic Engg. Dept. (Telecom faculty)	October 2012 to Dec. 2013
Class Advisor	various Batches	Various Semesters
Factotum, Head invigilator, and Head Examiner (Telecom)		Various Semesters
Member of BoS (Electronic Engg. Dept., IIEE, UIT) and BoF (ECE &CEA), Senate		

NOTE: NED is an ISO 9000:2000 certified university.

RESEARCH / SCHOLARLY ACTIVITIES:

HEC Approved PhD Supervisor: Currently supervising three and co-supervising one PhD students

Participated in various conferences, workshops, invited talks, Research projects etc.

Completed PhD Research on: Negative index metamaterials and metaspacers for optical frequencies.

Research Interests: Optics, Metamaterials, metaspacers, Negative index materials, Free space optics, Wireless channel Modeling

Publications: List attached; Cumulative impact factor: 16.671; Total Citations: 100; h-index: 6, i10-index: 5

PROFESSIONAL MEMBERSHIPS:

Pakistan Engineering Council (Life Member)

PEC No.: ELECT/17379

Pakistan Academy of Engineering

COMPUTER LITERACY:

Engineering: COMSOL Multiphysics, CST studio suite, ANSOFT HFSS, Labview, MULTISIM, Electronic Workbench, MIT Photonics Bands, MATLAB, SIMULINK.

Programming/Computation: C Programming, MATLAB. Mathematica.

Application Software: All general purpose software packages for windows and linux.

Operating System: Ubuntu (Linux), Windows 95, 98, NT, ME, 2000, XP, 7, 8 and DOS.

EXTRACURRICULAR ACTIVITIES:

As Participant: Debates, Quiz Competitions, Sports, Workshops, and Seminars.

As Organizer: Book fair, Workshops, Seminars, Science Exhibition.

Hobbies: Sports, Movies, and Books.

LIST OF PUBLICATIONS BY DR. MUHAMMAD IMRAN ASLAM

Journal Publications:

1. 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", *Advanced Electromagnetics*, Submitted.
2. 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," *Bahria University Journal of Information & Communication Technologies*, Submitted.
3. 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" *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 8, no. 2, pp-385-393, 2017.
4. Muhammad Usman, Irfan Ahmed, **Muhammad I. Aslam**, Shujaat Khan, and S. M. Usman Ali, "SIT: A Lightweight Encryption Algorithm for Secure Internet of Things" *International Journal of Advanced Computer Science and Applications (IJACSA)*, Vol. 8, no. 1, pp-402-411, 2017.
5. Md. Abdullah al Farooqui, Justin Breeland, **Muhammad I. Aslam**, Mehdi Sadatgol, Şahin K. Özdemir, Mark Tame, Lan Yang, and Durdu Ö. Güney, "Quantum Entanglement Distillation with Metamaterials," *Optics Express*, Vol. 23, No. 14, pp. 17941-17954, 2015.
6. Sana Aijaz, Irfan Ahmed, **Muhammad I. Aslam**, and Syed M. Usman Ali, "Spectrum Sensing in Cognitive Radios - Techniques, Issues and Challenges," *International Journal of Information and Communication Technology Trends*, Vol. 2, No. 1, pp. 1-4, 2015.
7. Immad Girach, **Muhammad I. Aslam**, Irfan Ahmed, Syed M. Usman Ali and Muhammad Khalid, "Photonic Band Gap Materials- Theory, Techniques and Application," *Bahria University Journal of Information & Communication Technologies*, Vol. 8, No. 1, pp. 126-129, 2015.
8. Shakil Ahmad, Muhammad Khalid, **Muhammad I. Aslam**, and Haroon Rasheed, "Analysis of Schemes to Improve Efficiency of Solar Cells," *Bahria University Journal of Information & Communication Technologies*, Vol. 8, No. 1, pp. 105-109, 2015.
9. **Muhammad I. Aslam** and Durdu Ö. Güney, "Optimizing low loss negative index metamaterial for visible spectrum using differential evolution: comment," *Optics Express*, Vol. 22, no. 4, pp. 3773-3774, 2014.

10. **Muhammad I. Aslam** and Durdu Ö. Güney, "On negative index metamaterial spacers and their unusual optical properties," *Progress In Electromagnetics Research B*, Vol. 47, pp. 203-217, 2013.
11. Durdu Ö. Güney and **Muhammad I. Aslam**; "Comment on "Silver/silicon dioxide/silver sandwich films in the blue-to-red spectral regime with negative-real refractive index" Appl. Phys. Lett. 99, 181117 (2011)]," *Applied Physics Letters*, Vol. 101, no. 15, Article ID 156101, October 2012.
12. **Muhammad I. Aslam** and Durdu Ö. Güney ; "Dual-band, double-negative, polarization-independent metamaterial for the visible spectrum" *Journal of Optical Society of America B*, Vol. 29, no. 10, pp.2839-2847, October 2012.
NOTE: This work received honorary mention in the research highlights of world's top journal of the field "Nature Photonics". [Reference: S. Armstrong, "Metamaterials: Negative in two bands," Nature Photonics, Vol. 6, No. 12, p. 800 December 2012.vol. 6, p. 800, 2012]
13. **Muhammad I. Aslam** and Seyed A. Zekavat; "New channel Path loss Model for Near-ground Antenna Sensor networks" *IET Wireless Sensor System*, vol.2, no.2, pp.103-107, June 2012.
14. **Muhammad I. Aslam** and Durdu Ö. Güney, "Surface plasmon driven scalable low-loss negative-index metamaterial at visible spectrum" *Physical Review B*, Vol. 84, No. 19, p. 195465, 2011.
NOTE: The work in this paper received wide appreciation from the research community worldwide and has been reported as major breakthrough in the field by different reputed journals (Namely (1) Optics and Photonics News, (2) Biophotonics) and many technical websites (Such as: LaserFocusWorld.com, ScienceDaily.com, Photonics.com etc). Related references are given below:
 - a. Y. Carts-Powell, "Metamaterial Superlenses for the Visible and UV", Optics and Photonics News, Vol.23, No.4, p. 6, April 2012
 - b. A. N. Paddock, "Superlens nears reality—in theory", Biophotonics, p. 11, March 2012
 - c. <http://www.laserfocusworld.com/articles/2012/01/surface-plasmon-drive-superlens.html>
 - d. <http://www.sciencedaily.com/releases/2012/01/120109102916.htm>

Conference Publications:

15. Zaheer Abbas Balouch, **Muhammad I. Aslam**, Irfan Ahmed, "Energy Efficient Image Encryption Algorithm" *International conference on Innovations in Electrical Engineering and Computational Technologies*, Karachi, Pakistan, April 2017.
16. 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," *14th International Bhurban Conf. on Applied Sciences and Technology*, Islamabad, Pakistan, January 2017

17. Maliha Arif, **Muhammad I. Aslam**, “Sonar Based Assistive Device for Visually Impaired Individuals” *Student Conference on Engineering Sciences & Technology*, Karachi, 14-15 December, 2016.
18. Rana Khan, Tehzeb Jamal, **Muhammad I. Aslam**, Irfan Ahmed, “Comparative Analysis of Different Patch Antennas”, *Proceedings of the 1st International Electrical Engineering Congress*, Karachi, 13-14 May, 2016.
19. 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 ”, *Proceedings of the 1st International Electrical Engineering Congress*, Karachi, 13-14 May, 2016.
20. Sundus Ali, **Muhammad I. Aslam**, Irfan Ahmed, “Analysis of Proportional Fairness Utility Function and Interference Mitigation in Heterogeneous Cellular Networks”, *31st IEEE Multi-topic International Symposium*, Karachi, 16th-17th March 2016.
21. Radha Mohanlal, **Muhammad I. Aslam**, Irfan Ahmed, “Radio resource allocation techniques for downlink transmission in LTE-Advanced”, *4th International Conference on Electrical, Computer, Mechanical and Mechatronics Engineering (ICE2016)*, Dubai, Emirates, 4-5 February 2016,
22. Shafaq Mustafa, **Muhammad I. Aslam**, Irfan Ahmed, “Analysis of Electromagnetic Wave Propagation through Photonic Crystal Fibers,” *International Conference on Advanced Materials and Process Engineering*, Karachi, 14-15 December, 2015.
23. Syed Asad Ali Shah, **Muhammad I. Aslam**, Irfan Ahmed, and Syed M. Usman Ali1, “Near-Perfect Metamaterial Absorber for the Visible Spectrum,” *International Conference on Advanced Materials and Process Engineering*, Karachi, 14-15 December, 2015.
24. **Muhammad I. Aslam** and Aamir Z. Shaikh, “Joint and Marginal Probabilities for Time of Arrival and Angle of Arrival using Ellipsoidal Model,” *Proceedings of the 3rd IEEE International Conference on Computer, Control & Communication (IEEE-IC4)*, Karachi, 25-26 September 2013.
NOTE: Won best paper award for communication stream in the conference.
25. Muhammad M. Rahman, **Muhammad I. Aslam**, Durdu Ö. Güney, and Philip G. Evans, “Experimentally feasible green-light negative index metamaterial,” *7th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS)*, pp. 262-264, 16-21 Sept. 2013.
26. **Muhammad I. Aslam** and Syed M. Ali, “A Wideband Metamaterial Absorber for Solar Cell Applications,” *Proceedings of the international conference on energy and sustainability*, pp. 113-116, Karachi, April 2013.