Engineer Ahmad Nafeel Aslam

Assistant Professor

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Nationality: Pakistani

Religion: Islam

Date of Birth (D.O.B.): July 25, 1977

Domicile: Lahore (Punjab)

CNIC No: 35202-2925331-1

Gender: Male

Marital Status: Married

Objective:

To obtain a position in the field **of Electrical Engineering** and to contribute in the area of **Electrical Engineering** by offering my skills, knowledge, technical expertise & assistance

Areas of Interest/Relevant CourseWork:

Microelectronics, Semiconductors, Electronic Devices & Circuits, Digital Electronics, Electronic Circuit Design, Engineering Electric Circuit & Network Analysis, Avanced Integrated Circuits(ICs) Technology, CMOS VLSI Design, System on a Chip, Power Electronics

Education:

Master of Science in Electrical Engineering (M.S.E.E.), University of South Florida (USF), Tampa, Florida USA.

Top 3 Research Public University of Florida State

May 2010 GPA 3.80/4.00

Bachelor of Science in Electrical Engineering, University of Engineering & Technology (UET), Lahore, Pakistan. April 2003: **First Division**

Graduate Research Assistantship Work:

In regard to my research repository being research associate during my master degree in Electrical Engineering at University of South Florida (USF), USA from 2009 to 2010, I encompass wide range of skills and exposure of microelectronics. Besides various microelectronics device fabrication opportunities my deem focus was to fabricate state of art NMOS transistor/Metal Oxide Semiconductor (MOS) capacitor through certain stages. Mainly these stages comprised of series of steps, thermal oxidation, and etching/masking/photolithography deposition to layout final NMOS transistor/MOS capacitor. Additionally, AIN and ZnO were employed passivation layer and active oxide layer for tentative design of NMOS transistor/MOS capacitor. Further that fabricated Boron doped NMOS transistor/MOS capacitor was characterized by techniques e.g. profilometry, ellipsometry, Atomic Force Microscopy (AFM), Nano indentation, ion implantation, annealing, epitaxy, Chemical Vapor Deposition (CVD) and Chemical Mechanical Planarization (CMP) process. However advance, NNRC, nanomaterials and nanomanufacturing research center and clean room platform was availed to carry out altogether for masking stack for nitride, polysilicon gate/patterning, layer passivation for open bonding pads deposition to come up with state of art NMOS transistor/MOS capacitor, with minimum leakage and efficient storage capability. It is to be negotiated for its advance design of NMOS transistor/MOS capacitor playing around with dopant and oxides materials both concentrations and oxide thicknesses to overcome current deliberation.

Work Experience:

January 2012 to present: Assistant Professor, Institute of Electrical, Electronics & Computer Engineering (IEECE), University of the Punjab (PU), Lahore.

February 2025 to May 2025: Visiting Teacher for Electronics, Department of Physics, University of the Punjab

November 2010 to February 2012: Lecturer, Faculty of Engineering (FOE), University of Central Punjab (UCP), Lahore.

2009 to 2010: Graduate Research & Teaching Assistantship, College of Engineering, University of South Florida (USF), USA.

2003 to 2004: Lecturer, Institute of Engineering & Technology (I.E.T), Allama Iqbal Open University

Applications:

Multisim, Proteus, Orcad PSPICE, Cadence Tools, Microsoft Office Software Tools (word, power point, excel)

Programming:

Assembly Programming Language, Java, MATLAB, SQL, Computer & Data Structures, Programming Computer Fundamentals

Professional Development Technical Workshops:

- August 29, 2022 to September 02, 2022: Design of Digital Integrated Circuits at the Department of Electrical Engineering, Syed Babar Ali School of Science & Engineering, LUMS by Prof.Asad Ali Abidi Distinguished Chancellor's Professor, Department of Electrical Engineering, UCLA
- August 19, 2019 to August 23, 2019: Teaching the teachers workshop on Basic Circuit
 Theory at the Department of Electrical Engineering, Syed Babar Ali School of Science & Engineering, LUMS by Prof. Asad Ali Abidi Distinguished Chancellor's Professor, Department of Electrical Engineering, UCLA
- 3. August 27, 2018 to August 31, 2018:Teaching the teachers workshop on Electronic Circuits for Instrumentation and Measurements at the Department of Electrical Engineering, Syed Babar Ali School of Science & Engineering, LUMS by Prof.Asad Ali Abidi Distinguished Chancellor's Professor, Department of Electrical Engineering, UCLA
- 4. 14th November, 2022: One day Continuing Professional Development (CPD) workshop on Renewable Energy, Planning and Demands at Department of Electrical Engineering, Lahore College for Women University, Lahore (LCWU), Pakistan Engineering Council(PEC) by Prof.Dr.Muhammad Kamran Vice Chancellor, MNS, University of Engineering & Technology (UET) Multan and Dr. Faiza Iftikhar, PEB Coordinator
- 5. 12th October, 2022: One day Continuing Professional Development (CPD) workshop on The Solar-PV Renewable Energy Systems:Introduction,Types,Designs,Economic Analysis, and Practical Implementation at Department of Electrical Engineering, Lahore College for Women University, Lahore (LCWU), Pakistan Engineering Council(PEC) by Engr.Dr.Tahir Izhar, Director, Maxell Power Pvt.Ltd and Dr.Faiza Iftikhar PEB-Coordinator,DEE,LCWU
- 6. June 23,2022: One day workshop on **Digital Chip Design using CADENCE Design Tools** at National Institute of Electronics(N.I.E), Islamabad, Ministry of Science & Technology, Government of Pakistan by M.Kamran Bhatti, Project Director

- 7. January 29, 2016: Certificate of recognition is presented to me in recognition of my contribution as a participant for the Faculty Development Workshop held in Department of Electrical Engineering, College of Engineering & Emerging Technologies (CEET), University of the Punjab(PU) by Prof.Dr.Rafique Ahmad, Principal, CEET and Engr.Dr.M.Azhar Naeem, Course Coordinator
- 8. October 22, 2024: I participated in "Essential of writing a research article for high impact journals" Elsevier Author workshop series for HEC Pakistan member universities , Scopus , ScienceDirect & Researcher Academy
- 9. June 10th,2025: "Neuromorphic Computing and Emerging Technologies:1-day Course" one-day deep dive into the cutting edge of neuromorphic systems and next-generation devices, featuring expert speakers from leading universities

Trainings Workshop:

February 4, 2025: I attended the "Training Workshop for National Research Program for Universities (NRPU) Grant of HEC" by Prof.Dr.Moaz ur Rehman, Director Center of Excellence in Molecular Biology (CEMB), University of the Punjab, Lahore.

Hands-on Professional Trainings, Exhibitions, Projects Competitions:

- February 22, 2011: One day training on Modern Teaching Methodologies at the Faculty of Engineering, University of Central Punjab, Lahore by Dr.Syed Tahir Hijazi, Pro-Rector, University of Central Punjab (UCP) and Dr.Tabrez A.Shami, Dean, Faculty of Engineering (FOE)
- 2) March 04-05, 2015: 4thInvention to Innovation Summit 2015, exhibition on **Technologies Having Potential for Commercialization** at University of the Punjab, Lahore, by Prof.Dr.Mujahid Kamran Vice Chancellor, University of the Punjab, Lahore and Prof.Dr.Muhammad Ashraf(S.I.), Chairman, Pakistan Science Foundation (PSF) and Abid H.K.Shirwani, CEO, Institute of Research Promotion (IRP)
- 3) November 21-23, 2022: 3 days hands-on training workshop on Mathematics with MATLAB organized by Professional Development Center (PDC) held at Information Access Center (IAC), Virtual University (VU), MoITT, Government of Pakistan (GoP) by Prof.Dr.Arshad Saleem Bhatti, S.I.,T.I., Rector and Ehsen Zafar Puri, Director ICT
- 4) June 29-30 , 2022: Two days 2nd International Online Innovation Summit for Microelectronics & Artificial Intelligence(A.I)
- 5) 7th October, 2024: One day Continuing Professional Development (CPD) hands-on workshop on "Overcurrent Protection: Configuration and Testing of Numerical Relays" at the Department of Electrical Engineering at Lahore College for Women University, Pakistan Engineering Council(PEC) by Engr.Mubasher Ahmed, Team Lead Field Services EPSOL PVT Limited and Dr.Faiza Iftikhar (PEB Coordinator LCWU)

6) March 26-27th, 2022: I attended as a judge of **Evaluations SOFTEC'22** prestigious projects competition event at **FAST NUCES LHR**

Conference:

- August 27, 2024: One day Electric Vehicle (EV) conference on United States Agency of International Development (USAID)'s Power Sector Improvement Activity (PSIA) at LUMS eMobility R&D Center: Motor Testing, Battery Testing
- 2) February 18, 2023: ISSCC/SSCS conference 2023, "Circuit Insights"
- 3) February 28-29, 2012: International Conference on Engineering Sciences(ICES 2012), Institute of Chemical Engineering & Technology, University of the Punjab, Lahore-Pakistan
- 4) April 23-24, 2022: "1st Pakistan Power Electronics virtual online Conference (PPEC)" by Dr.Khurram Afridi , Associate Professor, Cornell University, USA in collaboration with LUMS

Seminars:

- 1) 30th April , 2011: One day exhibition & seminar on "Effective Linkages between R & D Institutions, Industries & Academia and its Impacts on National Economy" organized by Ministry of Science & Technology (Most), Government of Pakistan and Pakistan Council of Scientific & Industrial Research (PCSIR) Laboratories Complex, Lahore
- 2) June 13, 2023: A seminar at institute of energy & environmental engineering by Prof.Engr.Ahsan Iqbal, Federal Minister of "Planning, Development & Special Initiatives"
- 3) March 14,2022: "Challenges to Higher Education & Autonomy of the Public Sector Universities" by Dr.Tariq Javed Banuri, Chairman Higher Commission, Pakistan
- 4) September 30th, 2022: "Front-End ASIC Design Flows using Synopsys EDA tools and 32/28 nm Generic Library" 2022 by Mr.Kashif Inayat, National University of Computer & Emerging Sciences, NUCES (FAST-NU), Islamabad
- 5) October 03, 2024: "AC-to-AC Converters: Basics and Advancements" by Dr.Naveed Ashraf, Seminar Series on Control Engineering & Applied Informatics, Society of Engineering Excellence IEECE University of the Punjab
- 6) April 30th, 2025: "High-Speed Wireline Interconnects: Fundamentals and Future Directions by Dr.Noman Hai", Seminar Series Talk, FAST-NU, Integrated Circuit Design Lab (ICD) and Microelectronics Training & Research Center
- 7) May 5, 2025: : "Introduction to Hardware Verification:Techniques,Tools, and Opportunities" by Dr.Naeem Abbasi , Ex-Qualcomm, Synopsys, PhD-Concordia, MS-Columbia, Seminar Room, IEECE, University of the Punjab

8) September 3,2025: "Materials Revolution: Advance Materials For Sustainable Future" a one-day seminar organized by Office of Research Innovation & Commercialization(ORIC), University of the Punjab, Quaid-e-Azam Campus, Lahore by Engr. Prof. Dr. Aqil Inam, Director ORIC

Webinars/Webinar Talks:

- 1. June 4, 2022: "RISC-V base Microprocessor System, System on chip(SoC) integrating a processor core with multiple peripherals for embedded applications" by UET, Lahore
- 2. "The CMOS Latch" by Asad Abidi, University of California, Los Angeles, USA
- 3. **"The Art of Linear Analysis for Analog Circuits"** by Jaeha Kim, Seoul National University, Korea
- 4. "The Basics of Low Noise Amplifiers" by Rabia Yazicigil Kirby , Boston University
- 5. **"The Basics of Analog-to-Digital Converters"** by Maurits Ortmanns, University of Ulm , Germany
- 6. April 13, 2023: "Analog Layout" with Thomas Parry and Tim Edwards
- 7. May 1, 2023: "Interdisciplinary education & research, Semiconductors, Importance of skills in today's graduates, role of A.I., Hardware Startups" by Dr. Hammad Cheema, Principal & Dean, SINES-NUST
- 8. September 23th , 2022: "mmWave CMOS Design, Layout, Consideration and Measurements" IC design seminar series 2022 by Dr.Azhar Shaheen , National University of Computer & Emerging Sciences , NUCES (FAST-NU), Islamabad
- 9. September 28, 2024: participated in "Industrial Partnership Projects (IPP-US)" for aspiring entrepreneurs in Pakistan
- 10. 22nd February 2025: "Potential of Hydrogen as Energy Source for Industry in Pakistan" Continuous Professional Development (CPD) webinar by Engr.Dr.Osama Majeed Butt, expert in renewable energy and hydrogen systems in collaboration with Pakistan Engineering Council
- 11. April 7, 2025: "Webinar On LUMS' Electrical Engineering Graduate Programmes" by Dr. Zubair Khalid and Dr. Adeel Pasha, Associate Professors of Electrical Engineering (EE) LUMS
- 12. *March 20, 2025*: **"Webinar On Design Verification: Philosophy of Debugging"** by Dr. Guy Hutchison , Syed Babar Ali School of Science and Engineering , LUMS
- 13. April 12, 2025: "Higher Education Through AI:A Vision For Student-Centered Learning" presented by Prof.Dr.Asghar Zaidi, Educator, Policy Reformer, Provost, University of Management and Technology, Lahore, Pakistan (UMT), Welcoming The Institute of Electrical and Electronics Engineers (IEEE) Education Week Event organized by Galveston Bay Section Joint Societies Chapters

14. June 4,2025: "Cadence TECHTALK: Transforming RF PCB Design: Advanced Co-Simulation and EM Analysis"

Industrial Visits:

- 1. September 02 , 2021: An industrial visit to 1223 MW Combined Cycle Power Plant, Balloki
- 2. Industrial visit to 1070 MW Hydroelectric Power Plant Station , Mangla , Mirpur District , Azad Kashmir

Online Video Lectures/Technical Talks:

- February 24, 2023: "Traditional Packaging Technology" by Chengjie Xi Alonso Cone Jos Lopez
- March 6, 2023: "Shape the world with Mixed-Signal Integrated Circuits Past, Present, and Future" by Akria Matsuawa, Ph.D IEEE life fellow, Professor Emeritus, Tokyo, Institute of Technology, & CEO, Tech Idea Co., Ltd
- 3. March 24, 2023: "Processor Design for dummies" Verilog, Computer architecture
- 4. June 14, 2023: "Electric Vehicles" (E.V.) by National Institute of Electronics (N.I.E.), Isalamabad
- 5. October 22, 2022: "RFIC Plenary Keynote: The Future of Digital RFICs" wonders of RFIC
- 6. October 25, 2024: "Analog-To-Digital Converters: Basics, Trends, Opportunities" by Dr.Pieter Harpe, Associate Professor, Eindhoven University of Technology, The Netherlands at NUST Chip Design Centre (NCDC), SINES, NUST

IEEE Workshop:

- 1. September 24, 2024: IEEE CASS INDUSTRY FORUM on Integrated Circuits & Systems for Emerging Technologies at NUST Chip Design Centre (**NCDC**), SINES, NUST
- 2. October 24, 2024: "Brain-Machine Interface Systems for Interacting with Robotic Exoskeleton" special IEEE CASS/IEEE Systems Council by Jose Maria Azorin Poveda
- 3. June 6, 2025: IEEE CASS RS Talks 2025 "Al for Physical Design: Overcoming EDA Bottlenecks in Optimization, Analysis, and Automation" by Prof.Vidya A.Chhabria, Arizona State University, USA
- 4. I attended all lectures of **ISSCC** 2025 Circuit Insights by **IEEE** Solid-State Circuits Society

Interactive Sessions/Expos:

- 1. March 19, 2022: "Career Opportunities in the Platform-based System on a Chip (SoC) design (Embedded AI) in Pakistan" by Raheel Khan, CEO Xcelerium
- 2. May 17-18, 2022:"MATLAB Expo 2022" live events online by mathworks.com

Languages:

Fluent in English, Urdu, Punjabi

1. **TOEFL** (Test of English as a Foreign Language): Test Date 04, 2008 Internet-Based Test Examinee Scaled Scores: 87/120 Reading+Listening+Speaking+Writing

Memberships of Learned Boards/Centers:

- Member of Nanomaterials and Nanomanufacturing Research Center (NNRC), University of South Florida (USF), USA
- 2. Member of the Board of Faculty of Electrical, Energy & Environmental Engineering(FEEE), University of the Punjab, Lahore-Pakistan
- 3. Member of Postgraduate Admission Test Committee of the Institute of Electrical, Electronics & Computer Engineering, University of the Punjab, Lahore

Publications:

- O. M. Butt, A. N. Aslam & H. Muazzam "Design of an AC Voltage Stabilizer by using Insulated Gate Bipolar Transistors", Journal of Faculty of Engineering & Technology. ISSN- 1992-3082, Issue 2015, vol 22, No2. PK
- O. M. Butt, S. M. H. Gillani, M. Ahmad, A. N. Aslam & H. T. Mustafa, "Alternating Current Voltage Stabilizer by Using Pulse Width Modulation" International Journal of Scientific and Engineering Research. ISSN-2229-5518, Vol 5, Issue12, December 2014.
- 3. Hassam Muazzam ,Umar Farooq ,M.Usman Asad,Nafeel Aslam,F.Rafiq "Design and Comparison of Observer Based Pole Placement and LQR Controllers for DC Motor Position Control" 2014 International Conference on Circuits Systems and Electronics Engineering , published in WIT Transactions on Engineering Sciences (ISSN:1743-3533)

References:

Available on demand