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CNIC: 41306-9376644-1

Nationality: Pakistani

DOB: 28-12-1982

Gender : Male

Status: Married

Education

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|---|----------------|-------------|
| • ME (Telecommunication & Control) | Grade-A | 2013 |
| Mehran University of Engineering & Technology, Jamshoro | | |
| • B.E (Electronics) | Grade-A | 2006 |
| Mehran University of Engineering & Technology, Jamshoro | | |
| • HSC | Grade-B | 2001 |
| Board of Intermediate & Secondary Education, Hyderabad | | |
| • SSC | Grade-A | 1999 |
| Board of Intermediate & Secondary Education, Larkana | | |

Strengths

- Self-disciplined, self-confident and hard working.
- Co-operative and adjustable nature.
- Strongly self motivated. I thrive on challenges and a committed profession.
- Willing to learn new things.

Professional Experience

- **17th Dec, 2014 – To date**
Assistant Professor at Telecommunication Engineering, Mehran UET, Jamshoro.
- **14th January, 2008 – 16th Dec, 2014**
Lecturer at Telecommunication Engineering, Mehran UET, Jamshoro.
- **2nd August, 2006 – 13th January, 2008**
Lab-Lecturer at Telecommunication Engineering, Mehran UET, Jamshoro.

Key Responsibilities

- Teaching core electromagnetic models, including Maxwell's equations, vector potentials, and the physical mechanisms behind charge acceleration that produce radio waves.
- Guide students through key performance metrics like radiation patterns, directivity, gain, polarization, input impedance, and radiation resistance.
- Operated miscellaneous hardware and software tools to upgrade the laboratory work of the Telecommunication Department.
- Troubleshoot Laboratory Equipment Failures.
- Served as Class Advisor to resolve issues of Undergraduate Engineering Students.
- Served as MIS coordinator & Factotum (Mid Semester Examination)- 2015& 2016.

Research Work

- **Postgraduate Thesis Work** : Controlling the Ripple levels of Microstrip Coupled line Bandpass Filter for Wimax Application.
- **Undergraduate Thesis Project** : Cell Planning and Optimization in GSM.
- **RF Funded Project** : Design of Microstrip Antenna with matching parameters of conventional antenna for Telecommunication Trainers (Contributed as Co-Principal Investigator of Funded Project by M/S Birds Chemotec, Karachi to improve the S-parameters of existing Telecommunication Laboratory Antennas with AWR Microwave Office Simulation tool).
- **Accepted Abstract**: Bandwidth Efficient MIMO Patch Antenna Design with Polarization Diversity, PIERS 2012, Moscow.
- **Accepted Abstract** : Library Management through Radio Frequency Identification (RFID), DICE2012, UET-Taxila.
- **Summer Internship program 2012**: Supervision of the project on "Fabrication and Testing of Numerous Antennas for Wireless Communication" at Mehran UET, Jamshoro
- **Research Publications**:
 - Dahri, F. A., Soomro, R. A., Memon, S. A., Memon, Z., & Memon, M. H. (2018). An Optimized Inset Feed Circular Cross Strip Antenna Design for C-Band Satellite Links. International Journal of Advanced Computer Science and Applications, 9(5). <https://doi.org/10.14569/IJACSA.2018.090532>.
 - S. KUMAR, R. A. SOOMRO, M. R. ANJUM, & T. MEHMOOD. (2018). Mitigating Antennas Proliferation of 2.4 GHz Coaxial fed Microstrip Patch Configuration designed for Bluetooth Connectivity . Sindh University Research Journal - SURJ (Science Series), 50(3). <https://doi.org/10.26692/surj.v50i3.993>
 - Soomro, R. A., Memon, A., Talpur, A., Akhtar, D., Rajani, P., & Baloch, N. Parametric Variation Based Analysis AND Effective Design of Rectangular Patch Antenna for Bluetooth Application.
 - R. A. SOOMRO, F. A. UMRANI, M. R. ANJUM, B. S. CHOWDHRY, & I. A. LASHARI. (2020). Optimal Design: Confining the Spurious Ripples of Coupled Line Microstrip Bandpass Filter for WiMax Links . Sindh University Research Journal -

SURJ (Science Series), 49(2). Retrieved from <https://sujo.usindh.edu.pk/index.php/SURJ/article/view/1426>

- Doltani, Vishal & Umrani, Fahim & Soomro, Riaz. (2019). Efficient Nano Antenna for Photonic Devices. 10.48550/arXiv.1906.00954.
- Soomro, R. A., Sun, L., & Xie, Z. (2019). Tapered antenna beam with cosmological far-off retrieval on fracto-sun signatures and surfaces gaits approachability. Progress In Electromagnetics Research C, 94, 103-117.
- Dahri, F. A., Soomro, R. A., & Memon, Z. A. (2017). Design of Wearable Microstrip Yagi Array Antenna aimed for Telemedicine Applications. Academic Journal of Management Sciences ISSN, 2305, 2864.
- Ali, Z., Soomro, R. A., Dahri, F. A., & Shaikh, M. M. (2021). Acquisition of Positional Accuracy with Comparative Analysis of GPS and EGNOS in Urban Constituency. International Journal of Advanced Computer Science and Applications, 12(2). <https://doi.org/10.14569/IJACSA.2021.0120271>.
- Pengfei, S., Anjum, M. R., Yue, Z., Soomro, R. A., & Manzoor, F. Tone-Reservation based on fractional Fourier Transform for Chirp based OFDM. International Journal of Scientific & Engineering (IJSER) Journal.
- **Reviewed the Research paper:** A Research paper under title " Study on Scalability and Band Gap Behavior of a New EBG and its Application for Performance Enhancement of Microstrip Patch Antenna Array" has been reviewed for IMTIC'13 conference at Mehran UET- Jamshoro
- **Supervision & Co-Supervision of the Undergraduate Thesis/Projects**
 - ❖ Bandwidth Efficient Planar Inverted Fractal Antenna for 4G LTE networks, 2016
 - ❖ Fractal Antenna design based on efficient consumption of Electromagnetic Energy for cellular systems, 2014.
 - ❖ Relay Selection in Cooperative Communication, 2013
 - ❖ Bandwidth Efficient MIMO Patch Antenna Design with Polarization Diversity, 2012
 - ❖ Library Management through Radio Frequency Identification (RFID), 2012
 - ❖ Physical layer performance of HSPA and 3GPP Long Term Evolution (LTE) and future evolution in mobile communication, 2011.
 - ❖ QoS control in wireless IP Access Networks, 2010.

Software Exposure

- **Programming Languages & Simulation Softwares :** C/C++, MATLAB, HFSS, Electronics Workbench, PSPICE, AWR Microwave Office and ADS.
- **Operating Systems :** Windows 7, 10, Vista.

Professional Membership

Pakistan Engineering Council (PEC Registration No. ELECTRO/8027)

Significant Contributions

Designed laboratory objectives involving both software & hardware analyses:

- Designed the practical work of **Analog and Digital Communication** on analog and digital modulation trainers and its programming through *MATLAB/Simulink*.
- **Microwave Engineering** practical work on ElectronicaVeneta Trainers (Horn and Parabolic Antennas, VSWR meter, Waveguides etc) and utilization of software tool *AWR Microwave Office and Advanced Design System (ADS)* .
- Composed the practical work of subject **Electromagnetic Waves and Radiating Systems** by utilization of different Antennas (e.g Microstrip antenna, Dipole Antenna, Ground plane antenna, Yagi Antenna) and explored their further characteristics with HFSS and MATLAB programming.
- Designed the laboratory work of subject **Fiber Optics Communication System** by working on different fiber major tools e.g OTDR, Fusion Splicer, Power Meter and usage of different SM, MM cables and connectors.
- Designed the practical work for 1st year students on subject **Introduction to Simulation Tools** that covers the software packages MATLAB and PSPICE.
- Conducted the practical work of subject **Spread Spectrum Communication** utilizing Communication blockset in MATLAB.
- Composed the practical work of subject **Telecommunication System and Applications** with PCM/EV TRAINER and utilizing MATLAB programming.

Training Programs

- Conducted Three days training course on *"Fiber Optics Communication System"* (10th June, 2010) at Telecommunication Department, Mehran UET- Jamshoro.
- Conducted training sessions of *"Antenna Theory"* and *"Transmission & Switching"* under *STEVTA-Training of Trainers project* at Mehran UET- Jamshoro (Dec, 2014) - Joint Venture of NED UET, Karachi and Mehran UET, Jamshoro under Sindh Skills Development Project.
- Joint Instructor of 3-days Workshop on "Microwave Measurements on Vector Network Analyzer" (05-07 Sep, 2016) at Telecommunication Department, Mehran UET- Jamshoro.
- Coordinated three days Workshop on *"PLC & Automation"* (18-20th April, 2011) at Telecommunication Department, Mehran UET- Jamshoro.
- Mentor of the two days workshop on *"Antenna Design and Fabrication"* (3-4 Sep. 2012) at Mehran UET- Jamshoro (**Report of workshop published in IEEE Global Communications Newsletter , November 2012**)

Trainings and Workshops Attended

- Attended One day "RF & Microwave Symposium" by National Instruments at Karachi, February 9, 2017.
- Attended Seminar on "PCB Fabrication and Advance Nano-PCB Laser Engraver" at Mehran UET, Jamshoro , August 5, 2016.
- Attended one day seminar on "How to Transform Ideas into a Viable Business" organized by USPCAS-W at M.D Hall, Mehran UET, Jamshoro, Sep,29-2016.
- Participated one-day seminar / workshop on "World Telecommunication & Information Society Day 2013", organized by IEEE Communication Society,

Karachi- chapter & Department of Telecommunication Engineering, Mehran UET Jamshoro.

- Participated in Two days Workshop on “*Simulating Wireless Communication Systems using MATLAB*” (12-13th April, 2011) at Telecommunication Department, Mehran UET- Jamshoro.
- Attended one day “*International Seminar/ Workshop on Latest Technologies in RF & Microwaves*” (11th August, 2010) by ROHDE&SCHWARZ at Regent Plaza Hotel, Karachi.
- Attended “*2nd Teachers Training Program*” (February,2009) organized by Directorate of Continuing Education, Mehran UET-Jamshoro.
- Attended Four days training on “*Fiber Optics*” (8-11th May, 2008) jointly organized by ComBit Telecom & Department of Telecommunication, Mehran UET-Jamshoro
- Attended Workshop on “*TELECOMMUNICATION TECHNOLOGY*” (19th April,2007) jointly organized by Electronica Veneta &IN.EL.SPA, Italy & Department of Telecommunication, Mehran UET-Jamshoro.
- Participated in the workshop on “*e-Journals, e-brary Databases and OPACs Awareness*” (29-30th Oct, 2007) organized by Mehran UET Library & On-line Information Center.
- Completed the Four weeks course on “*Wireless Networks*” (11th June- 7th July 2005) at Cell Com, Karachi.
- Completed Six Weeks Internship Training program in “*IT/ Communications*” (13th August, 2004) at National Institute of Electronics (NIE), Islamabad.

References

Available on Request