

DR. ENGR. NAUMAN ANWAR BAIG

IEEE Member

PEC REG No: ELECT/24680

MAILING INFORMATION

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PERSONAL INFORMATION

Marital Status: Married
D.O.B: 30th Nov, 1986

OBJECTIVE

I wish to pursue a career in a growing and dynamic organization, putting my theoretical knowledge into practical form, thus rendering all possible services in my capacity to the organization in such a way that effectively contributes to the optimal growth of the institute.

SUMMARY

- ✓ Ph.D EE (Electrical Engineering)
- ✓ +6 years teaching experience
- ✓ Administrative duties like Alumni association, Building Maintenance, Graduate program Incharge
- ✓ Reviewer of Journals like IEEE Access
- ✓ Industry Experience of Telecom, R&D Organization
- ✓ Published one Book

JOURNALS	Published	Conferences	Published
HEC W Category	04	Local	02
HEC X Category	01		
HEC Y Category	3	International	5
HEC Z Category	2		
Total	10	Total	7

EXPERIENCE

Assistant Professor 2017 to Date	International Islamic University	Islamabad, Pakistan
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Lecturer April 2014 to 2017	International Islamic University	Islamabad, Pakistan
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Taught Courses:

Communication Systems, Differential Equations & its Applications, Instrumentation and Measurements, Control Systems, Complex Analysis, Signals and systems
MS/PhD: Advanced Digital Signal Processing, Advanced Digital Communications, Advanced Engineering Mathematics, Radar Signal Processing

Tasks Performed:

- a. Incharge Graduate Program
- b. Secretary Board of Faculty
- c. Focal Person for Building Committee, IIUI.
- d. In charge Alumni Association, IIUI.
- e. Reviewer for Annual Conference, IIUI.

Consultant	Systems Design Cell	Islamabad, Pakistan
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Worked for 5 Years as a team member

Tasks Performed:

- a. Research and Development in Radar Signal Processing

Visiting Lecturer/ Adjunct Faculty Member	CEME, NUST	2009-14
	MCS, NUST	2016
	IESE, NUST	2015
	Bahria University	2013

Taught Courses:

Signals and Systems, Digital Logic Design, Control Systems, Electrical technology

INTERNATIONAL EXPOSURE

Presented Research papers in following International Conferences

- ✓ FTC, Canada 2018
- ✓ CCCM, China, 2010
- ✓ ICMSAO, Istanbul, 2015, Chaired a session
- ✓ APACE, Malaysia, 2016
- ✓ ICCTS, Singapore, 2017, Best presenter award
- ✓ Visited and stayed in USA for 5 years
- ✓ Visited Saudi Arabia and UAE

AWARDS

- ✓ MS leading to PhD Scholarship award

Hard Ware Skills

- ✓ Spectrum and Network Analyzers, Radio Communication Testers, Signal Generators and Analyzers, and Oscilloscopes
- ✓ Hardware Kits and Chips: DSP processor (DSK 6713), FPGA, Microcontroller 8051

Soft Ware Skills

- ✓ C++, MATLAB®
- ✓ Simulation Tools: Simulink, PSpice, model sim, proteus, keil.
- ✓ Hardware Description Language (HDL): Verilog
- ✓ OS: MS Windows 98/NT/2000/XP, MS-DOS.
- ✓ Other Tools: Microsoft Office Tools, AutoCAD 2004

Languages

- ✓ English, Urdu, Arabic, Punjabi

Projects Undertaken

- ✓ Design of Continuous wave radar
- ✓ Radar simulation and implementation on Xilinx
- ✓ Smart Energy meter
- ✓ Design of Cash Transfer Booth

QUALIFICATION

Year	University/Board	Degree	Division/Grade/CGPA
2017	CEME, NUST	Ph.D (Electrical Engg)	CGPA(3.83/4.0)
2010	CEME, NUST	MS (Electrical Engg)	CGPA(3.75/4.0)
2008	UET Taxila	B.E (Electrical Engg)	% age (82%)
2004	FBISE	HSCC	(1 st Div), 82 %
2002	BISE(Rawalpindi)	SCC	(1 st Div), 81 %

AREAS OF INTEREST

- ✓ Digital Signal Processing & Communication Systems
- ✓ Radar Signal processing
- ✓ Control System

PROJECTS

- ✓ **PhD EE :**
High Resolution Target Localization using Rotating Linear Array Radar
- ✓ **MS EE :**
Estimation of Direction of Arrival (DOA) using conventional and Adaptive Beamformers.
- ✓ **FYP :**
Design of a 60 GHz LNA using ADS.

RESEARCH PUBLICATIONS

Journals

1. **Nauman Anwar Baig**, Mohammad Bilal Malik, Muhammad Zeeshan, Muhammad Anwar Baig, "High resolution target localization using rotating linear array radar", in *Multidimensional Systems and Signal Processing*, March 2019 , pp 1-21, **(2.088 IF)**
2. **Nauman Anwar Baig**; M. Bilal Malik; M. Zeeshan; Z. Ullah; A. Ajaz, "Efficient Target Detection and Joint Estimation of Target Parameters with a two-element rotating antenna," in *IEEE Access* , vol. no.4, pp.4442-4451, 2016,DOI: 10.1109/ACCESS.2016.2598965 **(1.2 IF)**
3. **Nauman Anwar Baig**, Mohammad Bilal Malik, "2-D Direction-of-Arrival: Estimation of Azimuth and Elevation by Exploiting the Amplitude Modulation Induced by Antenna's Mechanical and Electronic Scan", *Wireless Personal Communications*, Volume 90, Number 1, pp 143-155, May 2016 **(0.701 IF)**.
4. Wajahat Ullah Khan Tareen , Muhammad Aamir , Saad Mekhilef, Mutsuo Nakaoka, Mehdi Seyed mahmoudian, Ben Horan, Mudasir Ahmed Memon and **Nauman Anwar Baig**, "Mitigation of Power Quality Issues Due to High Penetration of Renewable Energy Sources in Electric Grid Systems Using Three-Phase APF/STATCOM Technologies: A Review", *11(6)*, 1491, *Energies* 2018. **(2.676 IF)**

5. **Nauman Anwar Baig**, Mohammad Bilal Malik, and Muhammad Zeeshan “Frequency Diversity Array for DOA Estimation”, *Mehran University Research Journal of Engineering & Technology*, Volume 36, No. 4, pp 797-806, 2017 (**X Category**).
6. **Nauman Anwar Baig**, Mohammad Bilal Malik, Asim Ejaz, Khalid Munawar,” Architecture for Range, Doppler and Direction-finding Radar”, *JAEBIS*, 4(7S)193-198, 2014. (**ISI Indexed**)
7. **Nauman Anwar Baig**, Mohammad Bilal Malik, “Antenna Rotation Effects and Its Compensation in Radar Signal Processing”, *Journal of Communications* Vol. 13, No. 9, September 2018, **ISSN: 1796-2021** (Online); 2374-4367 (Print).
8. **Nauman Anwar Baig** and Mohammad Bilal Malik, “Comparison of Direction of Arrival (DOA) Estimation Techniques for Closely Spaced Targets”, *IJFCC*, volume 2 Number 6 p No. 654-660, Dec 2013 (ISSN # 2010-3751)
9. **Baig N.A.**, Baig M.A., Baig T.A., Baig A.A., Baig A.A. (2019),” Estimation of Phase, Range, Doppler of Targets Using Maximum Likelihood Estimator” In: Arai K., Bhatia R., Kapoor S. (eds) *Proceedings of the Future Technologies Conference (FTC) 2018*. FTC 2018. *Advances in Intelligent Systems and Computing*, vol 881. Springer, Cham
10. Nauman Anwar Baig, Muhammad Anwar Baig, Thawban Anwar Baig, Adnan Anwar Baig, Abdullah Anwar Baig, “Estimation of Phase, Range, Doppler of Targets Using Maximum Likelihood Estimator”, *Advances in Intelligent Systems and Computing* book series (AISC, volume 881), pp 483-490, 2018.

Conferences

1. Nauman Anwar Baig, Muhammad Anwar Baig, Thawban Anwar Baig, Adnan Anwar Baig, Abdullah Anwar Baig, “Estimation of Phase, Range, Doppler of Targets Using Maximum Likelihood Estimator”, *Future Technologies conference*, Canada, 2018.
2. **Nauman Anwar Baig**, Mohammad Bilal Malik, “Antenna Rotation Effects and Its Compensation in Radar Signal Processing”, 6th International Conference on Computer Technology and Science, ICCTS 2017, December 8-10, 2017, Singapore
3. **Nauman Anwar Baig**, Mohammad Bilal Malik, “Improved Algorithm for Moving Target Detection and Parameter Estimation”, 2016 IEEE Asia-Pacific Conference on Applied Electromagnetics (APACE), Dec 2016, Langkawi, Malaysia.
4. **Nauman Anwar Baig**, Mohammad Bilal Malik, “MIMO RADAR for combined Doppler, DOA and Range finding; 3-D RADAR: Mathematical Modeling & Simulation Results”, 6th International Conference on Modeling, Simulation and Applied Optimization, ICMSAO2015, Turkey.
5. **N. A. Baig**, M. B. Malik, “Comparison of Direction of Arrival (DOA) Estimation Techniques for Closely Spaced Targets”, International Conference on Intelligence and Information Technology, (ICIIT), October 2010, Pakistan.

6. **N. A. Baig**, M. B. Malik, M. Zeeshan, "Analysis of Various Configurations of Jammer and Transmitter", in Proceedings of International Colloquium on Computing, Communications, Control and Management, (CCCM), China, 2010, vol. 2, pp. 535-538.
7. **N. A. Baig** and A. Hussain, "RADAR signal processing for target range, Doppler and DoA estimation," 2017 14th International Bhurban Conference on Applied Sciences and Technology (IBCAST), Islamabad, Pakistan, 2017, pp. 820-825.

REFERENCES

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