CURRICULUM VITEA

MUHAMMAD IMRAN SHAHZAD

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Teaching Expertise:

- Digital Signal Processing
- Signals & Systems
- Analog and Digital Electronics
- Communication Systems
- Digital Logic and Design
- Mechanics
- Circuit Analysis
- Mathematical Physics

QUALIFICATIONS

Degree	Institute	Major Subject	Div.	Year
PhD	University Sains Malaysia	Power Electronics	-	2014--2017
M. Phil.	Q.A.U. Islamabad	Electronics	1st	2000--2002
M.Sc.	G.C.U. Lahore	Physics	1st	1997--1999
B.Sc.	Govt. College Gujranwala	Physics, Math A & B.	2nd	1994--1996
F.Sc.	Govt. College Gujranwala	Pre-Engineering	1st	1991--1993
Matric	Govt. Awami H/S, Satrah (Sialkot)	Physics, Chemistry, Biology & Mathematics	1st	1989--1991

M. Phil Project: Adaptive Two Steps Orthogonal Search Algorithm for Fast Block Motion Estimation.
Area of Specialization: Resonant power converters for DC-DC stage of PEV Battery charger.

TEACHING AND ADMINISTRATIVE EXPERIENCE

Lecturer of Physics at:	M.A. Jinnah University (Currently CUST), Islamabad
(From February 2001 to September 2005)	
Assistant Professor of Physics at:	Federal Urdu University of Arts Science and Technology,
(Since September 2005)	Near Bahria Enclave, Islamabad.
Head of Applied Physics Department.	Federal Urdu University of Arts Science and Technology
From Feb 2007 to March 2009	Near Bahria Enclave, Islamabad.
Director Evening Program	Federal Urdu University of Arts Science and Technology
From September 2018 to June 2020	Near Bahria Enclave, Islamabad.
Director Admissions	Federal Urdu University of Arts Science and Technology
Since December 2020 to date	Near Bahria Enclave, Islamabad.
Head of Applied Physics Department.	Federal Urdu University of Arts Science and Technology
Since September 2021 to date	Near Bahria Enclave, Islamabad.

COMPUTER SKILLS

- **Programming Experience:** MATLAB, C++
- **Software Experience:** Latex, MS Office**,** Win Edit. Scientific workplace

PUBLICATIONS

Journals Papers

1. Iqbal, S. and **Shahzad, M. I.** (2015), **LLC resonant DC–DC converter with series-connected primary windings of transformer**. *IEEJ Trans Elec Electron Eng*, vol. 10, issue 2 pp. 229-236. https://doi.org/10.1002/tee.22058

2. Shahid Iqbal, **M. Imran Shahzad** and Soib Taib (2017) **LLC Resonant Converter with Series-Connected Primary Windings of Transformer for PEV Battery Charging**, *Pertanika Journal of Science & Technology,* vol. 25, Issue Special, January 2017.

3. **M. Imran Shahzad**, Shahid Iqbal and Soib Taib (2017) **Dual-bridge LLC-SRC with extended voltage range for deeply depleted PEV battery charging**, *International Journal of Electronics*, vol. 104, no. 11, 1874-1892, November 2017, DOI: 10.1080/00207217.2017.1329947

4. **M. I. Shahzad**, S. Iqbal and S. Taib, "**A Wide Output Range HB-2LLC Resonant Converter With Hybrid Rectifier for PEV Battery Charging**," in *IEEE Transactions on Transportation Electrification*, vol. 3, no. 2, pp. 520-531, June 2017, doi: 10.1109/TTE.2017.2698243.

5. **M. I. Shahzad**, S. Iqbal and S. Taib, "**Interleaved LLC Converter with Cascaded Voltage-Doubler Rectifiers for Deeply Depleted PEV Battery Charging**," in *IEEE Transactions on Transportation Electrification*, vol. 4, no. 1, pp. 89-98, March 2018, doi: 10.1109/TTE.2017.2753407.

6. Saeed Ahmed, M Akbar and **M Imran Shahzad**, "**Response of Homogeneous Conducting Sphere in Non-Integer Dimensional Space**", in *Proceedings of the Pakistan Academy of Sciences: Part A*, vol. 58, no. 4, pp 11-16, December 2021.

7. **M Imran Shahzad**, M. Akbar and Saeed Ahmed, "**Mathematical Analysis on Conducting Sphere Embedded in Non Integer Dimensional Space**" in *Proceedings of the Pakistan Academy of Sciences: Part A*, vol. 59, no. 1, pp 11-16, March 2022.

8. Muhammad Arfan, Intisar Hussain, Zahoor Ahmad, Andleeb Afzal, Tauseef Shahid, Abdul Ghafar Wattoo, Muhammad Rafi, Aurang Zeb, **Muhammad Imran Shahzad**, Song Zhenlun, "**Facile Synthesis and Characterization of CuO–CeO2 Nanostructures for Photocatalytic Applications**", in *Crystal Research and Technology*, Vol. 57, no. 6, June 2022, doi/10.1002/crat.202100230.

9. M. Akbar, Saeed Ahmed and **M Imran Shahzad**, "**Close Form Solution for Dielectric Cylindrical Shell in Fractional Dimensional Space**" in *Proceedings of the Pakistan Academy of Sciences: Part A*, vol. 59, no. 2, pp 15-18, June 2022.

10. M. Akbar, Saeed Ahmed and **M Imran Shahzad,** "**Evaluation of Electric Field for a Dielectric Cylinder Placed in Fractional Space**" in *Proceedings of the Pakistan Academy of Sciences: Part A*, vol. 59, no. 2, pp 19-22, June 2022.

Conferences Papers

1. **M. I. Shahzad**, S. Iqbal and S. Taib, "**LLC series resonant converter with PID controller for battery charging application**," *2014 IEEE Conference on Energy Conversion (CENCON)*, 2014, pp. 84-89, doi: 10.1109/CENCON.2014.6967481.

2. **M. I. Shahzad**, S. Iqbal, S. Taib and S. Masri, "**Design of a PEV battery charger with high power factor using half-bridge LLC-SRC operating at resonance frequency**," *2015 IEEE International Conference on Control System, Computing and Engineering (ICCSCE)*, 2015, pp. 424-429, doi: 10.1109/ICCSCE.2015.7482223.

3. **Shahzad, M.I.**, Iqbal, S., Taib, S. (2017). **Hybrid-Bridge LLC Series Resonant Converter for Deeply Depleted PEV Battery Charging**. In 9th International Conference on Robotic, Vision, Signal Processing and Power Applications. Lecture Notes in Electrical Engineering, vol 398. Springer, Singapore. https://doi.org/10.1007/978-981-10-1721-6_92.

4. **M. I. Shahzad**, S. Iqbal and S. Taib, "Current Regulation of LLC Series Resonant Converter Using PID Controller for Battery Charging", in Proceedings of the USM School of Electrical and Electronic Engineering 5th Postgraduate Colloquium, 9-11 February 2015, Universiti Sains Malaysia (USM).