Curriculum Vitae (CV)

Name: Dr. Faroze Ahmad

Designation: Associate Professor

Category: General

Date of Birth: 05-01-1973

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   drferoz07@gmail.com

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Qualifications

- **Ph.D** (Electronics) 2004-2007
  University of Kashmir, Srinagar, J&K India
  Thesis: *Design and development of novel techniques for low-cost, efficient and secure message communication.*

- **M. Phil** (Electronics) 2002-2004 University of
  Kashmir, Srinagar, J&K India
  Dissertation: *Design and development of novel spread-spectrum modulation techniques for secure Message Communication.*

- **M. Sc** (Electronics) 1999-2000 University of
  Kashmir, Srinagar, J&K India
  Dissertation: *Design and development of novel Antenna Tracking System.*

Experience

- 14+ years as Assistant/Associate Professor at Islamic University of Science and Technology Awantipora, J&K India.
  Assistant Professor: 30-09-2008 to 30-09-2020
  Associate Professor: 30-09-2020 to Till date
- Worked as I/C Head for more than three years.
- Coordinator: Solar Park Development (Ongoing)

Current Research Interests

- Low-cost and efficient circuits for photovoltaic systems
- Design and implementation of Analog and digital circuits

Journal Publications

1. Sajad A. Tali, Faroze Ahmad and Inayat H,Wani **(2022)** "Hardware implementation of improved perturb and observe maximum power point tracking for photovoltaic systems with zero oscillations" Analog Integrated Circuits and Signal Processing, Vol 111 pp (Springer)
2. Aasif Bashir Dar and Faroze Ahmad (2022) "Optical millimeter wave generation techniqiues: An overview", Optik,Vol 53, pp 1-27. (Elsevier)
3. Baseerat Gul and Faroze Ahmad (2022), "Design and performance Investigation of Gaussian apodized FBG as hybrid dispersion compensation modulefor long-haul optical link" J. Opt. Commun.2022 (DE GRUYTER).
4. Aasif Bashir Dar, Faroze Ahmad and Rakesh K Jha (2021) ,"Filterless optical millimeter-wave generation using cascaded-parallel Mach–Zehnder modulators with tunable frequency multiplication factor", Optical and Quantum Electronics, Vol. 53 (Springer)
5. Aasif Bashir Dar, Faroze Ahmad and Rakesh K Jha (2020) "Filterless 16-Tupled Optical Millimeter-Wave generation using cascaded parallel Mach-Zehnder Modulators with extinction radio tolerance" Progress in Electromagnetics Research Letters Vol.91pp. 129-135. (PER)
6. Aasif Bashir Dar and Faroze Ahmad (2020) "Filterless 16-tupling photonic millimeter-wave generation with Mach- Zehender modulators using remodulation" Applied Optics, Vol. 59. No. 20. (Optical Society of America)
7. Sajad Aad Tali and Faroze Ahmad (2020) "Investigation of non-isolated DC-DC converters used in photovoltaic systems using Matlab simulations" Journal of Critical Reviews, Vol. 7 Issue 18.
8. Sajad Ahmad. Tali and Faroze Ahmad (2020) "Comparative analysis of PID Controller and Current Mode Controllerin Matlab Simulink for DC-DC Buck Converter, Journal of Critical Reviews, Vol. 7 Issue 18.
9. Aasif Bashir Dar and Faroze Ahmad (2019) "A full-duplex 40GHz radio over fiber transmission system based on frequency octupling", Optical and Quantum Electronics, Vol.51 pp 324. (Springer)
10. Nadeem T. Beigh, P. Najar, A B Hamid, F.T Beigh and Faroze Ahmad (2018) "2nd order Sigma Delta Modulator using Delta Sigma Toolbox" Asian Journal of Electrical Sciences, Vol 7, No 2 PP. 41-45.
11. Faroze Ahmad (Nov 2017) "A low-cost stepper motor controller" International journal of electronics, electrical and computational system

(IJEECS)/Mc Graw Hill Publications, Vol. 6 Issue 8, pp. 33-35.

12. Faroze Ahmad (Nov 2017) "A 555 timer based improved tuned astable multivibrator" International journal of electronics, electrical and computational system, Mc Graw Hill Publications, Vol. 6 Issue 11, pp 291-294.

13. Faroze Ahmad (2018) "A low-cost programmable digital sawtooth wave generator" International journal of research in electronics and computer engineering, 6/481.

14. Faroze Ahmad (2018) "A frequency hopping code division multiple access technique" International journal of management, technology and engineering, 8/1118.

15. Faroze Ahmad (2018) "An easy synchronization technique for short distance data transmission" International journal of research in electronics and computer engineering, 6/847.

16. Faroze Ahmad, G. Mohiuddin Bhat, "Novel circuits for the generation of gold sequences for increased message security", International journal of computer science and telecommunication, Volume 3, Issue 5, May 2012.

17. Faroze Ahmad, Zahid Gulzar Khaki, " Gain Equalisation of Hybrid Fiber Amplifiers", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4, Issue 3, March 2014

18. Shabeer Ahmad Ganiee, Sajad Ahmad Ganiee, Faroze Ahmad, "Design of delay efficient configurable booth multiplier for high speed applications", International journal of Engineering research and technology, Volume-3, issue1, Jan 2014

19. Faroze Ahmad, G. Mohiuddin Bhat, "Design and implementation of PCM-to-PWM data converter", International journal of computer applications, Volume 93, No.10, May 2014.

20. Faroze Ahmad, G. Mohiuddin Bhat, "A Novel Circuit for Pulse Code Modulation-to- PCM-Digital Pulse Position Modulation Conversion" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4, Issue 5, May 2014.

21. Faroze Ahmad, "On performance of digitally tuned astable multivibrator", International journal of electronics, electrical and computational system (IJEECS)/Mc Graw Hill Publications, Vol. 6 Issue 9, pp. 417-420, Sep 2017.

22. Faroze Ahmad, "On realization of simple programmable frequency divider", International Journal of advanced research in Electronics and communication engineering (IJARECE), Vol. 6 Issue 8, pp.945-947, Aug 2017.

23. Faroze Ahmad, "On design and realization of digitally programmable square-wave generator, international research journal of engineering and technology (IRJET), Vol. 4 Issue, pp. 3057-3059, Jun 2017.

24. Faroze Ahmad, "Operational Amplifier based Schmitt trigger with digitally controllable hysteresis, International journal of Computer Application, Vol. 171 Issue 2, Aug 2017.

25. G. Mohiuddin Bhat, Faroze Ahmad, "New LFSR based circuit for generating complex code sequences" ElectronicsWorld , Volume AOU, 2007

Conference Publications

1. Aasif Bashir Dar and Faroze Ahmad "Realization of Mach-Zehnder Modulator with Ultrahigh Extinction Ratio at Maximum Transmission Bias Point", 2020 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE)/ IEEE

2. Baseerat Gul and Faroze Ahmad, "Multistage amplified and dispersion compensated ultra-long haul DWDM linkwith high OSNR", Fourth International Conference on Emerging Research in Electronics, Computer Science and Technology (ICERECT) 2022/IEEE.

3. Sajad A. Tali & Faroze Ahmad, "Design and Analysis of Feedback Control for DC-DC Buck Converter" SCRS Conference on Intelligent Systems 2021 (Springer)

4. Aasif Bashir Dar and Faroze Ahmad, "Realization of Mach-Zehnder Modulator with Ultrahigh Extinction Ratio at Minimum Transmission Bias Point", 2020 IEEE 17th India Council International Conference (INDICON)/IEEE

5. Baseerat Gul and Faroze Ahmad, "Comparative performance analysis of Tanh-Abpodized Fiber Brag Grating and Gaussian Apodized Fiber Bragg Gratings Hybrid dispersion compensation model" , IoT and Analytics for Sensor Networks: Proceedings of ICWSNUCA 2021/Springer.

6. Sajad A. Tali, Faroze Ahmad and Wani Inayat, "Design and Analysis of Feedback Control for DC-DC Buck Converter, "10.52458/978-81-95502-00-4-33. /Springer

7. G. Mohiuddin Bhat & Faroze Ahmad, "Novel Encryption technique for low speed data transmission", 91st session of the Indian Science Congress, Chandigarh (2004).

8. G. Mohiuddin Bhat & Faroze Ahmad, "A novel circuit for pulse code modulation(PCM)-to-digital pulse position modulation (DPPM)", 2nd J&K Science Congress, University of Kashmir, Srinagar (2006).

9. Faroze Ahmad & G. Mohiuddin Bhat, "A new LFSR based circuit for generation of complex code sequences" International conference on advances in electronics and communication technology 15- 16th December (2006), K c college of Engineering & IT, Nawanshar Punjab.

10. Faroze Ahmad, "On realization of simple programmable frequency divider", 5th international conference on new frontiers of engineering, science, management and humanities Sep 2017, IETE Janakpur New Delhi.

11. Faroze Ahmad, "A low-cost stepper motor controller",4th international conference on science, technology and management Nov 2017, IETE Pune India.

12. Faroze Ahmad, "A 555 timer based improved tuned astable multivibrator", 5th International conference on advancement in engineering, applied science and management, Nov 2017, IETE Karnataka India.

Ph. D Guidance

S. No	Title of the Thesis	Status	Date of Award
1	Optical Millimeter-Wave Generation using MachZehnder Modulators	Awarded	10-11-2022
2	Design and Development of Power Transfer Techniques for Photovoltaic based Systems	Submitted	
3	Dispersion Compensation in Long Haul Optical Links and WDM Systems	Ongoing	

Courses Taught
- Photovoltaic Based Systems
- Power Electronics
- Microprocessors
- Analog Circuits-II
- Analog Communication
- Operational Amplifiers & LIC

Workshops/Courses attended
- Four-week general orientation course, Academic Staff College, University of Kashmir, Srinagar (2009)
- Three-week summer school, Academic Staff College, University of Kashmir, Srinagar (2013)
- Three-week winter school, Academic Staff College, University of Kashmir, Srinagar (2015)
- Second J&K Science Congress, organized by University of Kashmir (2006)
- Two-week ISTE STTP on Electric Power System (June 2017)
- One-week course on FPGA Programming in Power and Control Application, IUST Awantipora (2018)
- One-week short term course on Digital System Design, NITTTR Chandigarh India (2018)
- Two-week course on Rooftop solar grid engineer, Jamia Millia Islamia , New Delhi (2019)
- One-week Summer School on Quantum Mechanics, IUST Awantipora (2019)
- One-week course on 8051 microcontrollers and its applications, NITTTR Chandigarh (2020)
- One-week course on Technological Interventions using Wireless Communication, NITTTR Chandigarh (2020)
- 40-Hour Online FDP on Applications on Applied Signal Processing, Communication and Devices for IoT driven e-Health Care, NIT Warangal and KU (12-21st May 2022)

Research Projects

S.No	Title of the project	Sponsoring Agency	Period	Total amount
1.	Design, Development and maintenance of Photovoltaic based systems	TEQIP III	2019-2020	Rs. 2,00000/=