SALEHA BANO

Dept. of Electronic Engineering
NED University of Engineering and Technology
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WORK EXPERIENCE

NED University of Engineering and Technology (April 2010 to date)

- Serving as an **Assistant Professor** from **Dec. 2019 to date**
- Served as a lecturer from **April 2010 to Dec. 2019**

ACADEMIC QUALIFICATION

PhD in Electronics Engineering (Feb 2014 – Oct 2019)
Title: Power Efficient Continuous Time Filters for Portable Biomedical Applications
NED University of Engineering and Technology, Karachi, Pakistan

Masters of Engineering in Electronics (Aug 2010 – Dec 2011)
NED University of Engineering and Technology, Karachi, Pakistan
Major: Specialization in Micro system Design (MSD)
Thesis: General Bi-quadratic Active RC Filter Circuit Using Negative Impedance Converter

Bachelor of Engineering in Electronics (Jan 2006 – Dec 2009)
NED University of Engineering and Technology Karachi
FYP: Micro-controller based spectrophotometer using Compact Disc as diffraction grid

CAREER SUMMARY

- Conducted Practical's of Basic Electronics, Analog Integrated circuits, Opto Electronics & Microwave systems, Amplifier and Oscillator, Solid State Devices (SSD), Electronics Engineering Drawing & Workshop, Integrated Circuit and Power Electronics
- Designed and revised lab manuals of Integrated circuit and Analog Integrated Circuit.
- Performed administrative duty in Amplifier and Oscillator lab, as well as General Purpose lab as In-charge
- Worked as a faculty head of a Job fair named 'Career Expo', this job fair is aimed at showcasing the final year projects where potential employers are invited and a platform is provided to interact with the students regarding their final year projects and career goals (2012 to 2014)
- Arranged several workshops, seminars, trainings on various topics regarding Electronics Engineering field
- Managed to prepare presentation and to make different arrangements for the 'Open Day' held in NED University for the newly admitted students
- Attended workshops on presentation and communication skill, effective teaching practices and Research methodology.
- Supervising and assessing various Final year projects.

COURSES TAUGHT

- Analog Integrated Circuit
- Basic Electronics
- Electronics-II
- Opto Electronics and Microwave Systems
- Introduction to Biomedical Engineering
- Electronics Engineering Drawing & Workshop
- Integrated Circuit

RESEARCH PUBLICATIONS

Journal Publications:

1. **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, 'Flipped Voltage Follower Based Fourth order Filter and its Application to Portable ECG acquisition System for ECG Application', Integration-the VLSI Journal. vol.22, pp. 29-38, May 2020. **(JCR Indexed IF: 1.150)**
2. **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, 'Nanopower Sub-threshold Biquadratic Cells and Its Application to Portable ECG System', International Journal of Electronics and communications, vol.107, pp. 57-69, July 2019. **(JCR Indexed IF: 2.853)**
3. **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali, '7.2 nW 68 dB DR Fourth Order Self-compensated LPF for Portable ECG Application', Advanced Biomedical Engineering, vol.8, pp. 153-162, July 2019. **(ISI Indexed)**

- **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali Shah, 'Power Efficient Fully Differential Bulk Driven OTA for Portable Biomedical Application', Electronics, MDPI, Vol. 7, No. 41, March 2018, doi:10.3390/electronics7030041. **(JCR Indexed I.F: 2.1)**
- **Saleha Bano**, Ghous Bakhsh Narejo and Syed Muhammad Usman Ali Shah, 'Low Voltage Low Power Single Ended Operational Transconductance Amplifier for Low Frequency Applications', Wireless Personal Communications, pp. 1–10, April 2018. **(JCR Indexed IF:0.9)**
- **Saleha Bano**, Ghous Bakhsh Narejo & S.M. Usman Shah, 'Low Power Fully Differential Folded Cascode OTA with CMFB Circuit', Journal of Multidisciplinary Engineering science & technology (JMEST), Volume 4, Issue 7, July, 2017, ISSN: 2458-9403
- **Saleha Bano** and Talat Altaf, 'Universal Bi-quadratic Filter Based on Negative Impedance Converter', International Journal of Computer Technology and Electronics Engineering (IJCTEE) Volume 2, Issue 3, p. 102-105, June 2012, ISSN 2249-6343

Conference Publications:

- **Saleha Bano**, Ghous Bakhsh Narejo and S.M. Usman Ali Shah, 'Power Efficient Highly Linear Negative Current Feedback OTA for Portable biomedical Applications', ICE(TE)2, 28-29 February 2018, Electronic Engineering Department, NEDUET, Karachi, Pakistan.
- **Saleha Bano**, Ghous Bakhsh Narejo and S.M. Usman Ali Shah, 'Single CDBA Based Bilinear Current Mode Canonic Universal Filter', IEEE Computing, Electronic and Electrical Engineering (ICE Cube), 11-12 April, Quetta, Pakistan, 2016. **DOI:** 10.1109/ICECUBE.2016.7495250
- Muhammad Talha, Talat Altaf, **Saleha Bano**, 'CDBA based single input current mode universal filter and unity gain amplifier', TENCON 2015, November 1-4, 2015, **DOI:** 10.1109/TENCON.2015.7373130
- **Saleha Bano** and Talat Altaf, 'Low pass, band pass and high pass filters using current inversion type negative impedance Converter', 14th IEEE International Multi-topic Conference (INMIC 2011), Karachi, Pakistan, December 22-24, 2011. Pages: 62 - 66, DOI: 10.1109/INMIC.2011.6151511
- **Saleha Bano**, Talat Altaf and Sunila Akbar, 'Microcontroller based spectrophotometer using compact disc as diffraction grid', Asia Communications and Photonics Conference and Exhibition, Shanghai, China, December 8-12, 2010, p. 332 – 336, **DOI:** 10.1109/ACP.2010.5682532

CERTIFICATES

Certificates of following courses from Centre for Continuing Engineering Education (CCEE), NED University of Engineering and Technology, Karachi

- Advance Digital Electronics and Interfacing Techniques
- Analog VLSI
- Fuzzy Logic and Intelligent Electronic Control System

SOFTWARE & COMPUTING SKILLS

- ORCAD
- MATLAB
- Multisim
- Cadence
- LabView
- Nano hub

PROFESSIONAL AFFILIATION:

- Registered Engineer from Pakistan Engineering council