

HASHIM RAZA KHAN

EXPERIENCE

2002- to date **NED University of Engg. & Tech., Karachi, Pakistan**

Assistant Professor (2006- present)

- Taught courses of Basic Electronics, Integrated Circuits and VLSI Design.
- Technical point of contact for multi-vendor RFIC EDA tool chain comprising of Cadence, Mentor Graphics, and Sonnet tools. Also responsible for upgrade and maintenance of all EDA tools.
- Technical point of contact for MOSIS account for IC fabrication on IBM, TSMC, AMIS Multi Project Wafer runs. Also responsible for upgrade and maintenance of all PDKs.
- Team member responsible for establishing Electronics Design Centre including design of facilities, equipment selection and procurement, etc.
- Lab In-charge of RF Lab at EDC.
- Project advisor for undergraduate projects related to RFIC design, Telecommunications and embedded systems.
- Organized several seminars on Automation, Signal Processing, VLSI, Entrepreneurship, and career counseling by inviting speakers from academia and industry.
- Organized Students' Project Exhibition and Competition in 2006.

Lecturer (2002-2006)

- Taught courses of Basic Electronics and Integrated Circuits.
- Laboratory In-charge of Power Electronics Laboratory.
- Testing and commissioning of equipments in Industrial Electronics and Power Electronics Laboratories.

Oct 05-May 06 **Infineon Technologies, Duisburg, Germany**

Master Thesis Student

- Worked as Master Thesis student on Design of RF Synthesizer in 65nm process technology for GSM SoC.
- Worked as student worker on the design of band gap reference voltage for GSM SoC in 65nm process technology.

Mar 05- Sep 05 **Agilent Technologies, Böblingen, Germany**

Internee

- Worked as intern with HSM R&D team. Tasks included designing a 320Mbps signal generator capable of supplying clock, PRBS and frequency sweep functionality for the FCal robot's calibration board. Other responsibilities include providing assistance for improvement in FCal measurement and processing the results.

2004-2005 **Aachen University of Technology (RWTH), Aachen, Germany**

Student Worker

- Worked as Student Worker at the Institute of Analog Circuits (IAS). Tasks included getting familiarized with Mentor Graphics ModelSim and implementing frequency divider, FIR filters in VHDL.
- Worked as Student Worker at the Institute of Communication Systems and Data Processing (IND) in the area of background noise suppression in speech signals.

EDUCATION

2008- **NED University of Engg. & Tech., Karachi, Pakistan**

PhD (in progress) in Electronic Engineering collaborating with Linköping University, Sweden. PhD topic is RF Power Amplifier Design.

2003-2006 **Aachen University of Technology (RWTH), Aachen, Germany**

M. Sc in Communications Engineering with grade 1.8 on German Scale (1.0 is best and 4.0 is worst).

1998-2002. **NED University of Engg. & Tech., Karachi, Pakistan**

BE in Electrical Engineering, remaining among the top 10 students of the Department of Electrical Engineering throughout the four years of study. Aggregate Percentage: 82% (A-1)

COURSES & TRAINING

2011 **RF Analog IC Design, EPFL, Lausanne, Switzerland.**

Five days extensive course on RFIC Design by Mead Education S.A.

2009 **EDA Tools Training, Singapore.**

Two weeks training for Mentor Graphics IC and PCB design tools by Mentor Graphics Inc.

2006 **LabVIEW and Instrumentation Training, NED University, Karachi, Pakistan**

Ten days project based training of LabView by Asstt. Prof. Uvais Qidwai, Professor, Qatar University, Qatar

SKILLS

- IC design, simulation and synthesis in Cadence Custom IC Design tools Mentor Graphics and ADS tools.
- RF and digital PCB design in ADS, Eagle and OrCAD
- EM simulations in Sonnet and Momentum.
- Test and measurement of various blocks of RF front end for wireless communication systems.
- Programming in C, Verilog, VHDL
- Circuit simulation in LINMIC, OrCAD, SWCAD and variants
- Simulation in Matlab and NS-2

- Knowledge of Windows, Unix and Linux operating systems.
- Proficient in MS Office and LATEX
- Fluent in English and Urdu, basic knowledge of German

RESEARCH GRANTS & FUNDING

2011-2014

- Joint Project Director for Research Project “Flexible, Reconfigurable and Power Adaptive Power Amplifiers for wireless Communication” funded by ICT R&D Fund. This three year project is the first project funded by ICT R&D Fund at a University in Sindh (Rs. 14 million approximately).

2008-2012

- PhD funding from NED University Research Fund (Rs. 20 million approximately).

PUBLICATIONS

1. A. R. Qureshi, H. R. Khan and Q. Wahab, “High Efficiency Switching Classes RF Power Amplifiers in Wireless Communication,” NED University Journal of Research (Thematic Issue on Energy), January 2012 (Accepted)
2. H. R. Khan, A. R. Qureshi, and Q. Wahab, “A Fully Integrated Class-E Power Amplifier in 0.13um CMOS Technology,” 9th IEEE International NEWCAS 2011, June 26-29, 2011, Bordeaux, France.
3. H. R. Khan and Q. Wahab , “A 24 GHz Class-A Power Amplifier in 0.13um CMOS Technology,” International Conference on Solid State and Integrated Circuits, March 11-13, 2011, Shanghai, China.
4. H. R. Khan, J. Fritzin, A. Alvandpour, Q. Wahab, “A 900 MHz 26.8 dBm Differential Class-E CMOS Power Amplifier,” IEEE 5th German Microwave conference, March 15-17, 2010 in Berlin, Germany.
5. S. Azam, H. R. Khan and Q. Wahab, “Designing and Fabrication of power amplifiers using ADS and active device study in TCAD”, 12th International Symposium on Microwave and Optical Technology (ISMOT-2009) New Delhi, India.

CONTACT INFORMATION

Email: hashim@neduet.edu.pk
 Tel: +92-21-99261261 (9 lines) Ext.: 2407
 Direct: +92-21-38020799
 Fax: +92-21-99261255
 Linkedin: <http://pk.linkedin.com/in/hashimrazakhan>