

# Sneha Chheda

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## Masters of Engineering in Microelectronics

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### Career Objective

Seeking a challenging position to utilize my skills and creativity in academic field which will offer professional growth while being innovative and resourceful.

### Summary

- ❖ Masters of engineering in Microelectronics with CGPA of 4 out of 7 from University of Western Australia with a keen interest in VLSI architecture and designing tools.
- ❖ Has a strong background in circuit designing and layout tools.
- ❖ Familiar with C, C++, Matlab, Cadence, etc.
- ❖ Basic knowledge of VBscript.
- ❖ Experienced with programming in Microprocessor (8085, 8086) and Microcontroller (8051).
- ❖ A team player with strong analytical, problem solving and organizational abilities, self learner and strong grasping skills.
- ❖ Easily adaptable to different situations, result-driven, efficient time manager.
- ❖ Always eager to learn and implement.

### Hardware and Software skills

- ❖ Design simulators: Pspice, Cadence, Altera, Xilinx, Ansys, Silvaco, Comsol Multiphysics
- ❖ Layout design tools: Cadence (0.18um CMOS)
- ❖ Languages: VHDL, Verilog, C & C++ (NIIT certified), Matlab
- ❖ Network protocols: TCP/IP, UDP
- ❖ Operating systems: Windows, MSDOS

### Academic Projects

During M.E.

- ❖ M.E. Thesis: Transport studies of AlGaIn/GaN High Electron Mobility Transistor structures.

Theoretical and Practical analysis by 1D Poisson program developed by Gregory Snider to extract sheet charge density and Hall Measurements to extract sheet charge density and mobility of the HEMT structures used for Biological applications and then comparing the theoretical and practical results.

- ❖ Full custom design implementation of an Operational Transconductance Amplifier using Cadence 0.18um CMOS technology.
- ❖ Designed a 16\*16 array multiplier in Centos such that the delay is less than 5ms.

During B.E.

- ❖ Designed an electronic watchdog for the security purpose on PCB which can be used in Offices, Home, etc.
- ❖ Designed a 4\*4 array multiplier on PCB.

## **Work experience**

### **❖ Lecturer in Ahmadabad Institute of Technology, 2007 - 2008.**

Assisted a professor in the computer simulation of digital circuits (RC Integrators) using both Pspice and MATLAB.

Assisted an instructor in the area of electromagnetic fields and radar systems.

Worked as an instructor in the Microprocessor Lab: Duties included teaching the students, correcting their reports and assisting in the assembly of electronic circuits.

Programmed microprocessors based on the Z80 and the Intel 8085 using Assembly language.

### **❖ Aeronautical analyst at Hi-tech analytical services, Ahmadabad, Gujarat, Oct 2010 - Nov 2011**

Preparing charts of Airlines with Microstation software during different stages like take-off, in the AIR and landing.

Do Quality analysis of the charts prepared and release it to the Airline customers.

### **❖ Assistant Professor at Sabar Institute of Technology for Girls, Chiloda, Gandhinagar, Jan 2012 – Oct 2012**

Teaching Integrated circuits and its Applications in 5<sup>th</sup> Semester and Microwave engineering in 7<sup>th</sup> semester in Electronics and Communication branch.

Have taken subjects like Very Large Scale Integration (VLSI) and technology design and Digital Communication in 6<sup>th</sup> semester in Electronics and Communication branch.

Working as a instructor in Integrated Circuits lab. Worked as an instructor in the VLSI and Digital Communication Lab: Duties included teaching the students, correcting their reports and assisting in the assembly of FPGA and CPLD using Xilinx software.

Appointed as an IDP/UDP coordinator for 7<sup>th</sup> & 8<sup>th</sup> semester in Electronics and Communication branch.

### **❖ Electronics R & D engineer at General Meditech Devices Pvt. Ltd, GIDC, Gandhinagar, Nov 2012 – July 2013**

Research, development and implementation of the latest technology in the industry and adopting the standards, procedures and processes including CMOS technology, custom data acquisition and testing systems.

I am actively involved in the research and development department related to X-ray sensor based on CMOS and CCD technologies and novel and most researched material Graphene with ample possibilities in wide areas of electronics storage systems.

I have experience in troubleshooting of electronic equipments and also have in-depth understanding of the hardware and software design of Electrocardiogram machine, Laser machine (925nm), Spectrometry.

❖ **Sr. Project Fellow at CSIR-Central Electronics Engineering Research Institute(CEERI), Pilani, July 2013 – Present**

Working in MEMS and Microsensors group on a project “ Polymer Based Gas Sensors”. I am involved in the fabrication and characterization of the gas sensors at room temperature. Have experience of working in a clean room doing processes like Lithography, Etching, Lift-off, etc.

## **Journals and Conference**

- ❖ Published a paper on “ Transport properties of AlGa<sub>N</sub>/Ga<sub>N</sub> High Electron Mobility Transistor Structures” in International Journal of Engineering Research and Technology.
- ❖ Published a paper on “ Transport properties of AlGa<sub>N</sub>/Ga<sub>N</sub> High Electron Mobility Transistor Structures” in International Journal of Engineering Trends and Technology.
- ❖ Presented a Poster on “ Conductive Polymers for Sensors Applications” in International Conference on Interdisciplinary Areas with Chemical Sciences (ICIACS)-2013

## **Seminars and Presentation**

- ❖ Attended Seminar on Solar Cells and Light-Emitting Diodes: Two optoelectronics devices for a greener planet by D.L. Pulfrey, University of Western Australia, Australia during M.E.
- ❖ Participated in paper presentation on ‘Nanotechnology’ at LCIT, Bhandu and at L.D. Engineering College, Ahmadabad.

## **Educational Credentials**

- ❖ M.E. (Microelectronics) in 2010 with First class.  
The University of Western Australia, Australia.
- ❖ B.E. (Electronics and Communication) in 2007 with Distinction.  
L.C. Institute of Technology, Hemchandracharya North Gujarat University, Gujarat.
- ❖ Intermediate (H.S.C) in 2003 with first class.  
M.K. Higher Secondary School, Gujarat University, Gujarat.
- ❖ SSC in 2001 with Distinction.  
Shree Sahajanand Secondary School, Gujarat University, Gujarat.

## **Achievements**

- ❖ Participated and won prizes for various competitions at school level.
- ❖ Bhavishya Jyoti scholarship by NIIT.
- ❖ A learned traditional Indian dancer.

## **Personal Details**

- ❖ Date of Birth: 11/02/1986
- ❖ Gender: Female
- ❖ Motto: Believe in smart work rather than hard work.
- ❖ Languages Known: English, Hindi, Gujarati
- ❖ Address: B-61, Shaligram, Opp. Bimanagar, Satellite road, Ahmedabad, Gujarat-380015.

## **References**

I am happy to provide these upon request