Ankur Saxena

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Career Objective

To work in an organization that will utilize and enhance my skill sets in the field of Education, Research & development of Engineering and its Applications.

Professional Qualification

- Ph.D. Pursuing in **Microfluidics Pressure Sensor for Healthcare Application** from **Manipal University Jaipur 2019-2022.**
- VLSI Front End Course from **VLSI GURU Institute, Bangalore** in Dec.2017.
- **Master of Technology** in VLSI Design from the **Rajasthan Technical University** in 2015.
- M.Tech.- Research Work**: *RF MEMS Switch***
- Bachelor of Engineering in Electronics & Communication from **the University of Rajasthan** in 2008.
- B.E.- Major Project: ***Digital Clock Using MCS-51***

Hands on VLSI Training Program

- INUP-i2i Hands-on Training Workshop at IIT Bombay Nanofabrication Facility (IITBNF), IITB during April 4-13, 2022.
- Familiarization Workshop on Nanofabrication Technologies held IIT Bombay, January 19- 21, 2022.
- Hands on Training Learning RCA Cleaning of Wafer, Thermal deposition, Oxidation, Sputter, Lithography, AFM, Ellipsometer at IIT Bombay, 2022.

Experience- Teaching & Administrative -10 years

Jagannath University

- As Assistant Professor 9 years' Experience of Teaching & Administrative
- Project Guide in VLSI& Robotics.

- Training & Placement Coordinator of Branch of Engg.
- Admission Cell Coordinator.
- Handle the Academic counselor and Team for management
- Converting Students into Enrollments
- Organized workshop in Robotics and VLSI.
- Prepare the lesson plans.
- Prepare innovative PPT's for lectures.
- Internal test during semesters.
- Ensure 100% results for the students.
- Share students' feedback with their parents.
- Motivate students to attend conferences.
- Access, review & evaluate student's activities & progress.
- Participating in departmental & University activities.
- Supervise students' projects.

Arya College of Engineering & I.T.

- As an Assistant Professor 1 year Teaching Experience
- Project guide in Electronics
- Prepare innovative PPT's for lectures.
- Internal test during semesters.
- Ensure 100% results for the students.
- Share students' feedback with their parents.

Experience- VLSI Industry 1-year 8 months

PrimeSoc Technologies

- As a Member of Technical Staff with 1 year.
- Verification code Master and Slave for APB protocol
- Design a Synchronous FIFO
- Verification code for AXI Protocol
- Design a SV code for CSI

Pine Training Academy

- Design Engineer work as 8 months
- Converting Students for training
- Provides Training To students
- Develop Verilog code on FPGA kit & Xilinx Tool. .

- FPGA Design on Xilinx Tool & NEXYS
- Setup & hold time Concept.

Conference & Journal Publication

- International Journal - 10 International Conference-14

Journal

- **Thin Film dielectric materials for enhanced electrostatic actuation in rectangular cantilever-based RF MEMS switch** "Microsystem Technologies - Springer (Uploaded – Under Review).
- **An Efficient Microfluidic Pressure Sensing Structure Optimization using Microcantilever Integration "** IEEE Sensor Journal (Uploaded- Under Review).
- **Analytical Study of Fluid Pressure Sensing Mechanism in Microchannel for** Microfluidic Device " Technical Innovation in Mechanical Engineering –Springer **(Proceeding for Publication 2022)**
- Fixed- Fixed MEMS Switch Simulated with Flexures and Perforation **"Elsevier Journal: Journal of Xi'an University of Architecture & Technology" 2020.**
- Simulation Study of Dielectric material selection for micro-cantilever switch application "**AIP Conference Procedding"2019.**
- Actuation Voltage Analysis Using FEM of RF MEMS Switch Design for Low Power Consumption Application "**IEEE" May 2019.**
- Computation of Actuation Voltage and Stress Made of Hafnium Oxide Materials Used in Radio frequency Micro Electromechanical System **Switch "Springer Journal Lecture Notes in Electrical Engineering"** pp-93-100,in Dec. 2017**.**
- Comparative Study of Cantilever RF MEMS Switch **"Elsevier Journal: Material Today page** 10328-10331, October, 2017.
- RF MEMS Perforated Shunt Switch Design on Hafnium Oxide Substrate for Low Actuation Voltage", **International Journal of Electronics and Electrical Engineering** in Dec. 2016.
- Comparative Study of Perforated RF MEMS Switch"**, Elsevier Procedia Computer Science Journal, Volume** 57C, Pages 139-145 September 2015.
- Design & Simulation Low Actuation Voltage Perforated RF MEMS Switch" in **ICTACT Journal on Microelectronics** in Feb. 2015.
- Design and simulation of various Fixed-fixed RF MEMS Switch**" International Journal of engineering research and general science**, JANUARY 2015.

Conference

- **Optimization of Microfluidic Pressure Sensing Mechanism Integrated Micro cantilever in Microchannel, "**6th International Conference Recent Trends in Electronics and Information & Communication Technology at SVCE Bangalore on 27- 28 August 2021.

- **Analytical Study of Fluid Pressure Sensing Mechanism in Microchannel for Microfluidic Device,**" 1st International Conference on Technology Innovation in Mechanical Engineering "(TIME-2021) , 10-11 May 2021 at Gandhi nagar, Bhopal**.**
- **Design and Simulation of Microcantilever Sensor for Biomedical Fluidic Application, "**26th International Conference Of International Academy Of Physical Sciences On Advances In Applied Physics & Earth Sciences", 18-19Nov, 2020, at Manipal University Jaipur.
- **Integrated Pressure Sensing Layer in Microchannel for Microfluidic Application,** " IEEE, 5th International Conference on Emerging Electronics ,26- 28 Nov.2020, at IIT Delhi.
- **Comparative Study of High Dielectric Material Selection For MEMS Rectangular Cantilever Switch,** International Conference on Innovation in Electronics, Communication, Computing & Automation, 23-25 Nov., 2020 at KL University, Guntur (A.P).

Software Proficiency

Operating System **:** Linux, Windows 07/08/10
VLSI Programming Languages: VHDL, Verilog-HDL, SystemVerilog ,UVM
Programming Tools **:** Modelsim, QuestaSim, Xilinx
Layout Tools **:** Xilinx, Proteus, Keil
R&D Tool **:** Comsol Multiphysics, HFSS
Languages **:** C, C++,Matlab
Processor **:** 8085

Knowledge & Experience

- Experienced in Verilog, Questasim programming.
- Expertise in Digital Design and Advanced Verification Techniques
- Proficient in RTL design, simulation and synthesis using Questasim tools.
- Experienced with Questasim Platform.
- Knowledgeable in CMOS VLSI design, Verilog RTL coding.
- Knowledgeable in ASIC front end design.
- Knowledgeable in FPGA.
- Experience in Xilinx Tool
- Experience in RF MEMS Switch COMSOL Multiphysics Tool

Speaker & Member

- International **Keynote Speaker** on Innovation in microfluidic pressure sensing mechanism for microfluidic application at Webinar on Biosensor and Bioelectronics on **12 October 2021 at London.**

- International Conference on Small Science, **Prague, Czech Republic** on Topic RF MEMS Switch & Its Application in , Jun,2016.
- International Conference"**7th Annual Congress on Materials Research and Technology**" on February 20-21, 2017 at Berlin, Germany.
- Member of IAAM Advancement of Material to Global Excellence.

Area of Interest

- ASIC Design, RTL Design.
- IP Verification.
- FPGA Design.
- MEMS RF MEMS Switch, Microfluidic Sensor, Pressure Sensor, Biosensor

Conference

Attend

- International Conference -14
- National Conference- 5
- Workshops -7

Organized

- Robotics Workshop cum championship in 2013 &2016
- Organized Three days Workshop on Android.
- Organized Workshop cum Seminar on iPhone

Assets

- Progressive and adaptable attitude
- Hard work with smart mind
- Always-helpful attitude
- Good observer
- Sincere

Personal Details

Name : Ankur Saxena
Father's Name : S.K.Saxena
Date of Birth : 04-12-1986
Gender : Male
Marital Status : Married
Nationality : Indian
Languages Know : English and Hindi