

# Kriti Agarwal

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**Objective** Dynamic professional with 3 years of corporate experience seeking full time or internship opportunities to drive research and innovation in the area of Microelectronic Fabrication and MEMS technologies.

**Education** University of Minnesota-Twin Cities Expected December, 2015  
Degree: Master of Science in Electrical Engineering (MSEE)  
GPA: 3.25  
**Relevant Courses:**  
Physics of semiconductor devices  
Microelectronic Fabrication  
MEMS power generators  
Introduction to Microsystem technology.

Manipal Institute of Technology, Manipal, India May, 2011  
Degree: Bachelor of Engineering in Electronics and communication  
GPA: 7.71/10.0

**Work Experience** **University of Minnesota, ECE Dept.** September, 2014 – Present  
*Graduate Research Assistant*

- Fabrication of three-dimensional micro and nano structures using self-assembly techniques.
- Work with the Minnesota Supercomputing Institute on designing and simulating metamaterial structures on Ansoft HFSS.
- Present monthly group seminar reviewing recent advancements in the field of metamaterials and incorporating them into our design
- Design of novel Terahertz split ring resonators which have application in medical device and communication industry.
- Co-author, review and provide data for proposals and journal publications.

**IBM India Pvt. Ltd., Bangalore, India** July, 2011 – August, 2014  
*Associate System Engineer*

- Leading the team as Senior Technical Lead and Subject Matter Expert (SME)
- Functioning as a Weblogic, Apache, and Sharepoint Server Administrator.
- Supporting and maintaining Java applications and database administration.

**Skills** *Micro Fabrication technologies:*

- Photolithography
- Thin Film Deposition techniques: Electron Beam Evaporation, Sputtering,

## Atomic Layer Deposition

- Electroplating
- Profilometer, Filmterics, and Ellipsometer.
- Thermal Oxidation
- Oxygen Plasma etching

## *Development Tools/Languages:*

- Ansoft HFSS
- Pspice
- MATLAB
- VHDL/Verilog
- C, C++ , Java, HTML, JSP, Javascript
- Eclipse IDE, MP LAB Environment, Keil uVision

## **Achievements**

- Awarded the *IBM Excellence and Achievement Award* for outstanding performance and ensuring client satisfaction
- Awarded the *IBM Orion Award* for innovation and delivering exemplary performance while adhering to the core values of the company.
- Board member for Institute of Engineering – Electronics and Communication, Manipal
- Awarded Rotary Youth Exchange scholarship.

## **Activities**

- Intern at the Center for Development of Telematics (CDOT), New Delhi, India working on interfacing various devices with Pic 32 microcontroller for voice, video, and data services.
- Completed the senior design project fabricating “Bhariti”, a robotic cleaner with collision detection and path memory customized to suit Indian homes.
- Interfacing and design of mini projects such as home security systems, line following robots.
- Volunteer at the Students- Against- Hunger Annual Haunted House raising funds for packaged meals for youth in developing countries.
- Volunteered for Sai National Rural and Research Society educating rural farmers on the use of organic Bio-fertilizers at Allahabad, India
- Volunteered for Kamala Nehru Memorial Hospital, Allahabad generating awareness among rural women on health & hygiene, and developing MIS for documentation of reports for Urban Reproductive Health Initiative.

## **References**

Madhu Banerjee, Team Lead, IBM ([madhubanerjee@us.ibm.com](mailto:madhubanerjee@us.ibm.com))

Bore Gowda, Ass. Professor, Manipal University ([bore.sb@manipal.edu](mailto:bore.sb@manipal.edu))

Shounak De, Ass. Professor, Manipal University ([shounak80@yahoo.com](mailto:shounak80@yahoo.com) )