

Juline Shoeb

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OBJECTIVE

To demonstrate outstanding performance in nanoscale processing associated surface-plasma interactions modeling employing computer simulations.

SUMMARY

- **Pursuing Ph D in Electrical & Computer Engineering, GPA 3.85/4.00.**
- **Masters of Science in Electrical & Computer Engineering, GPA 4.00/4.00.**
- Have been working as a Research Assistant in the area of plasma surface interactions since August 2008 under the supervision of **Prof. Mark J Kushner**.
- Course works: Microelectronic Fabrication Techniques, Semiconductor Physics, Physics of Semiconductor Devices, Dynamic Programming, Computation Methods in Bioinformatics, Computer Programming with C/C++, Design of Experiments, Digital Signal Processing, Microprocessors and Digital Computers, Advanced Electronics and Biomedical Electronics.
- Privilege of working as a graduate teaching assistant for Electronics and other Laboratories, ECE Dept., North Dakota State University.
- Strong interpersonal, teamwork and communication skills.
- Strong computer skills in programming languages and electrical & computer engineering softwares.
- Strong analytical skills and ability to learn new technologies within possible shortest time.

EDUCATION

Pursuing Ph D (Electrical & Computer Engineering), expected to graduate in August 2011. Iowa State University, Ames, IA

GPA: 3.85/4.00

Master of Science (Electrical & Computer Engineering), graduated in May 2007, North Dakota State University, Fargo, ND

GPA: 4.00/4.00

Bachelor of Science (Electrical & Electronic Engineering), graduated in February 2004, Bangladesh University of Engineering & Technology (BUET), Dhaka

GPA: 3.49/4.00

Academic and Research Achievements

- One Journal of Vacuum Science and Technology article (submitted).
- Three other publications, one among them was presented in IEEE Applied Power Electronics Conference, 2008.
- Stood 19th in the combined merit list of Higher Secondary examination (Exam. after 12th Grade), out of 120,000 students, held in Bangladesh, 1997.
- Member Phi Kappa Phi.

PROFESSIONAL EXPERIENCE

Graduate Research Assistant

- Michigan Institute for Plasma Science and Engineering, **University of Michigan, Ann Arbor** (August 2008- present)
- Computational Optical and Discharge Physics Group, Department of Electrical & Computer Engineering, **Iowa State University** (Aug. 2007 -August 2008)

Responsibilities:

- Completed the project , ‘Simulation of HfO₂ Gate-Stack Etching’; work supported by **Semiconductor Research Corporation** and supervised by **Prof. Mark J Kushner** (August 2007 - October 2008)
- Currently working on the project, ‘Simulation of Porous Low-*k* Dielectric Sealing By Combined He and NH₃ Plasma Treatment’; work supported by **Semiconductor Research Corporation** and supervised by **Prof. Mark J Kushner** (November 2008- present)

Graduate Teaching Assistant, August 2005-June 2007

Electrical & Computer Engineering, **North Dakota State University**, Fargo, ND

Responsibilities:

- Conducting electronics, circuits and other experiments in the ECE dept. laboratories.
- Worked with over 300 students.
- Conducted simulation works in the department computer cluster.
- Preparing electronics experiment handouts for electrical and computer engineering courses.

INDUSTRIAL EXPERIENCE**Atomic Energy Commission, Dhaka, Bangladesh** (April 03- September 03).

- Designed a digital logic circuit for nuclear waste management.
- Worked as a group member in the electronics and simulation laboratories.
- Presented the assigned design problems.
- Developed and simulated an algorithm for controlling the speed of an induction motor.

COMPUTER SKILL SETS*Languages:*

C, C++, FORTRAN and Assembly.

Engineering Tools:

MATLAB, PSPICE, PSIM, and SAS.

Operating Systems:

OpenVMS, UNIX, LINUX Red Hat, Windows 95/98/NT//2000/XP.

Word Processing:

MS Word, MS Excel, Power point.

ENGINEERING TEAM PROJECTS

- Hand on experience in CMOS Fabrication, Design of ECG amplifier, Design and Implementation of 4-bit Arithmetic Logic Unit, Hardware implementation of a Radio, Optical Networks, Maximum Power Point Tracking of Photovoltaic Panels.

PRESENTATIONS

- Juline Shoeb and Mark J Kushner ‘Simulation of Porous Low-*k* Dielectric Sealing by Combined He and NH₃ Plasma Treatment’, **ICOPS**, June2009.
- Juline Shoeb and Mark J Kushner ‘Reaction Mechanism and Profile Evolution for HfO₂ High-*k* Gate-stack Etching: Integrated Reactor and Feature ScaleModeling’, **55th AVS Symposium**, October2008.

LEADERSHIP ACTIVITIES

- President, Cox’sBazar District Students’ Association, Bangladesh (Aug. 02-Sep. 03).
- House Cultural Prefect, Faujdarhat Cadet College, Chittagong, Bangladesh (May 96-May 97).

REFERENCES

Available upon request