

Md Ali Azam

azamma@vcu.edu

EDUCATION

Virginia Commonwealth University

Ph.D. Candidate in Mechanical and Nuclear Engineering

Expected May 2020

Louisiana Tech University

Engineering with concentration in Micro & Nanoscale Science, No degree Earned, GPA: 3.67/4.00

Fall 2015 to Spring 2016

Bangladesh University of Engineering and Technology

Bachelor of Science in Electrical and Electronic Engineering, GPA:3.46/4.00

February,2013

RESEARCH EXPERIENCE/INTEREST

Virginia Commonwealth University

- Micromagnetic Simulation using mumax to analyze magnetization Dynamics of fixed skyrmions and nano-magnetic devices
- Mathematical Modeling of Biological Neuron based on Hodgkin Huxley Model in Simulink
- Energy efficient magnetic implementation of artificial neural network

Louisiana Tech University

- Dielectrophoretic deposition of Graphene for chemical sensors
- PMMA assisted Graphene transfer to Silicon-oxide substrate for device fabrication

Bangladesh University of Engineering and Technology

- Undergrad thesis on Bifurcation Analysis to Predict Voltage Collapse in Bangladesh Power Network Systems

SKILLS

Language: English(Full Professional Proficiency)

Software: Mumax, MATLAB, Pspice, Autocad 2016, Python

Programming: C

PUBLICATIONS

Journal:

- M.A. Azam, D. Bhattacharya, D. Querlioz, J. Atulasimha, "Resonate and Fire Neuron with Fixed Magnetic Skyrmions" Journal of Applied Physics 2018.
- M.K.M. Rabby, A.H. Chowdhury, M.A. Azam, M.A. Towfiq, "Bifurcation analysis to identify voltage collapse in Bangladesh power system"- in Proc. of International Conference on Informatics, Electronics & Vision, pp.1-5, 17-18 May 2013

Conference:

- M.A. Azam, D. Bhattacharya, D. Querlioz, J. Atulasimha, "Fixed Magnetic Skyrmion Based Resonate and Fire Neurons" Bulletin of the American Physical Society, 2018
- M.A. Azam, D. Bhattacharya, D. Querlioz, J. Atulasimha, "Fixed Skyrmion Based Resonate and Fire Neuron" International Conference on Magnetism, 2018.
- M. Azam, D. Bhattacharya, D. Querlioz and J. Atulasimha, "Energy Efficient Voltage Controlled Nanomagnetic Implementation of Neural Networks" Joint MMM-Intermag Conference, 2019