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Educational qualification

- 2015 to present PhD in Microelectronics and Photonics (expected graduation: 2019) (GPA: 3.76)
Recipient of Doctoral Academy Fellowship Award
Advisor: Prof. H. Alan Mantooth
Mixed Signal Computer Aided Design Lab
 University of Arkansas, Fayetteville
 Thesis topic: *Power Module Layout Design and Automation*
- 2012 to 2014 Master of Science, Microelectronics and Photonics (GPA: 3.88)
 University of Arkansas, Fayetteville
 Advisor: Prof. Ajay P. Malshe
 Thesis title: *Life Cycle Assessment Projection of Photovoltaic Cells: A Case Study on Energy Demand of Quantum Wire Based Photovoltaic Technology Research*
- 2006 to 2010 Bachelor of Engineering in Electrical and Electronics Engineering (GPA: 3.51)
 National Institute of Engineering, India
 Thesis title: *Automation of a Welding Process by Speed Control using Pulse Width Modulation*
- 2003 to 2006 Walt Whitman High School, Bethesda, MD (GPA: 3.93)

Work experience

- 2010 to 2012 Assistant Systems Engineer for Tata Consultancy Services Ltd. (TCS), India
 Technology: Informatica, SQL
- Present Intern at ANSYS, Inc.

Publications

- ◆ S. Mukherjee, G. Salamo, and A. P. Malshe, "Energy Demand Analysis of Photovoltaic Device – Material and Nanomanufacturing Process Discovery," *Procedia Manuf.*, vol. 1, pp. 226–237, 2015. Presented at: North American Manufacturing Research Conference, 2015.
- ◆ Q. Le, S. Mukherjee, T. Vrotsos, and H. A. Mantooth, "Thermal Transient Modeling for Failure Prediction in Multi-Chip Power Modules," 17th IEEE Workshop on Control and Modeling of Power Electronics, COMPEL 2016.
- ◆ S. Mukherjee, T. Evans, Q. Le, S. Pytel, Y. Peng, T. Vrotsos, and H. A. Mantooth, "Electric Field and Current Density Optimization with Corner Correction of Power Module Layouts," IEEE Applied Power Electronics Conference and Exposition, APEC, 2018 (*in submission*).

Professional groups and leadership roles

- Since 2007 IEEE; Student officer at undergraduate level
- Since 2015 Power Optimization of Electrothermal Systems (POETS), a National Science Foundation Engineering Research Center; Student Leadership Council member at graduate level
- 2014-2015 Materials Research Society (MRS)
- 2014-2015 Material Advantage Club officer at graduate level

Software skills

- ◆ Developed an EDA tool (using Python) that optimizes power module layouts
- ◆ Familiar with ANSYS Q3D, Maxwell, SI wave, and xml macros for ANSYS
- ◆ Automated the placement process of VLSI modules using simulated annealing (Java)
- ◆ Familiar with website maintenance, C++, and Qt GUI