

Devesh Mohan

<https://deveshmohan.github.io/>

dmohan@iastate.edu

(703) 609-6749

3108 West Street, Ames IA 50014

Education

Iowa State University | Ames, Iowa

Aug 2013 - Present

B.S. Electrical Engineering (Emphasis in VLSI)

Class Standing: Senior

Expected Graduation: Dec 2017

Grenoble Institute of Technology | Grenoble, France

Summer 2015

Nanotechnology Summer Program

Topics covered: Micro/Nano Electronics, Nanobiology, Materials Engineering, Nanophysics, Solar Cell Fabrication in Clean Room Environment

Related Coursework

Integrated Electronics (EE 330)

Senior Design - Smart Miniature Greenhouse (EE 491)

Linear Equations (Math 207)

Electronic Circuits / Systems (EE 230)

Energy Systems and Power Electronics (EE 303)

Differential Equations (Math 267)

Digital Logic (CprE 281)

Object-Oriented Programming (ComS 227)

Skills and Interests

Programming Languages

C/C++, Matlab, Java, Web Development (HTML5/CSS), Javascript, NodeJS

Simulation Programs

Electrical:

PSpice, Cadence Virtuoso, Signal Express, Verilog, ModelSim

Mechanical:

Robot Operating System, Autocad

Laboratory Techniques

Titration and Rinsing, Fluorescence Spectroscopy, Gold Sputtering Deposition, Basic Signal Processing

Language Skills

English, Hindi, French (Elementary proficiency)

Summer Work Experience

SmartAg LLC, Ames, IA | July 2017 - Present

Electrical / Software Engineering Intern

Working on hardware prototyping of autonomous tractor hardware using Raspberry Pi and Arduino.

Laboratory of Integrated Optical Sensors (LIOS), Iowa State Univ, IA | May 2016 - Dec 2016

Undergraduate Research Assistant

Principal-investigator for project under Dr. Meng Lu titled, "Water Quality Study for Microcystin Detection using Colorimetric Gold Nanoparticles," to detect the presence of Microcystin-LR toxin in drinking water to produce a color based assessment of quality. Intended result to be used to produce a quick, cheap and portable device in accompaniment with a phone application.

Oral presentation at National Conference on Undergraduate Research (NCUR) 2017, Memphis

GIANT Internship at Laboratory in Materials Science and Physical Engineering (LMGP), Grenoble, France | May 2015 - July 2015

Undergraduate Research Intern

Research internship under Dr. Celine Ternon titled, "DNA Grafting on Nanowires," to quantify the amount of DNA deposited on Si/ZnO nanowires and perfect procedure to improve reproducibility. Intended result to be used to build biosensor device for disease detection.

Oral presentation at ISU Undergraduate Research Symposium 2016

The Boeing Company, Huntington Beach, CA | May 2014 - Sept 2014

IT Intern - Systems Engineering / Project Management

IT internship as member of Network Segmentation team responsible for improving the security, responsiveness, and capability of the Boeing global network. Created and reviewed engineering specification documents to be used in data centers, ran monthly RIO (Risk, Issue, and Opportunity) Board meeting, and facilitated a team of interns in the Wearable Computing Technology Group to develop technologies for an airline crash site.

University Research and Work Experience

Senior Design Project - Smart Miniature Greenhouse | Jan 2017 - Present

Project under Dr. Liang Dong to build a network of 16 heating and cooling smart greenhouses, utilizing O2 and CO2 sensing to provide accurate sensing information.

Winner of \$1,000 Innovation Pitch Competition - Agricultural Technology | April 2017

Winning pitch for wasabi farming in Iowa, addressing world food shortages of high-quality wasabi production through climate-controlled greenhouses.

Self-Designed Research Project | Nov 2016 - April 2017

Feasibility study titled, "Addressing food shortages through vertical farming and efficient microgrid design," aims to tackle the problems of food shortages and high food prices in regions that are either incapable of producing food, or, where the cost of produce can be lowered. This study determines if cost savings in vertical farming can be found in solar energy.

Poster presentation at National Conference on Undergraduate Research (NCUR) 2017, Memphis

NSF Grantee for poster presentation at UPitt Mascaro Sustainable Engineering Conference 2017

Teaching Assistant - Electrical Circuits (EE 201) | Jan 2016 - May 2016

TA under Dr. Gary Tuttle. Responsibilities included conducting laboratory sessions covering basics of circuit building, testing, and analysis; and grading for class. ~10 hours per week.

LASER Electrical Engineering Team Member, Aerospace Eng. Research | Sept 2014 - May 2015

Member of LASER (Light Aircraft Solar Extended Range) Team working on battery optimization, chip programming, and avionics using Ardupilot and Arduino platforms.