MUKUNTH NATARAJAN

PROFILE
Current PhD student at the School of Sustainability in ASU seeking an opportunity to build a sustainable future. My goal is to create a sustainable future and design practical, cutting edge solutions that are guaranteed to save both costs and the environment.

EDUCATION
- **PhD Student**   Aug 2014 to Present
  Arizona State University, School of Sustainability, Tempe, AZ *(GPA: 4.00*)*
- **Master of Science in Green Technologies**   Aug 2011 to May 2013
  University of Southern California, Viterbi School of Engineering, Los Angeles, CA (*GPA: 3.86*)
- **Bachelor of Engineering in Electronics and Communication Engineering**   Aug 2006 to May 2010
  P.S.G. College of Technology, Coimbatore, India (*GPA: 3.28*)

WORK EXPERIENCE
- ***Teaching Assistant*** *at Arizona State University*   Aug 2014 to Present
- ***Integrating Sustainability Contents Contributor*** *at Sustainable Silicon Valley*   Feb 2013 to Apr 2014
  Research and summarize existing sustainability frameworks and reporting mechanisms. Developed a robust road map aimed at achieving corporate sustainability. Research and write about the different Corporate Sustainability practices.
- ***Marketing Intern*** *at Good Planet Media*   Sep 2012 to Dec, 2012
  Develop on-set greening strategies. Wrote report on on-set sustainability measures (Old Navy shoot). Calculated impact of these strategies and quantified them.

ACADEMIC PROJECT EXPERIENCE
- Developed a ***Sociotechnical Systems Model*** to measure sustainability indicators (e.g. CO_2 emissions and water withdrawal) for the island of Lana'i. The model anticipated future constraints arising at the Water-Energy nexus and informs sustainable decision making on Lana'i.
- Performed the ***Life Cycle Analysis for a Vertical Garden*** which resulted in an energy payback period of 22 years in the best case scenario. Presented the paper at the ***Façade Tectonics Conference*** and published in ***Urban Ecosystems*** journal.
- ***Audited lighting efficiency of The Los Angeles Memorial Coliseum*** and developed recommendations aimed at reducing annual lighting energy expenditures by 15%. A consulting report was generated.
- Designed ***novel Solar Lighting system using PV technology*** that outperforms existing solar conversion systems and provides energy savings up to 35%. Design received top prize in 2 different all-India technical symposiums.
- Developed a ***Genetic Algorithm for the Optimization of a Loaded Line phase shifter*** in MATLAB to determine the optimum length and width of the phase shifter to reinforce radiation pattern in a desired direction alone.

TOOL EXPERTISE
PVWatts, SAM, CalEEMod, MATLAB, SQL, EQUEST, CLIMATE CONSULTANT, VENSIM, EMBEDDED C, C, C++, Photoshop, Illustrator, JAVA, XML, HTML, VHDL/VERILOG.

COCURRICULAR ACTIVITIES
- PV system design and home energy calculations for the ***USC Solar Decathlon***, involved with organizing the ***FLOW Competition*** for 2013, among the top 100 teams in Schneider Electric's "***Go Green in the City***" competition.
- Designed a net zero retrofit as part of a Design Charette at the EDR Design Shift Competition.
- Organized multiple cultural festivals with 100+ participants (KRIYA, YLGC) in under graduation. A member of the marketing and publicity committees for different events.