

Gowtham Venkatraman

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OBJECTIVE

Seeking an internship or co-op opportunity in Summer / Fall 2020 in design, advanced manufacturing, control systems and related areas

EDUCATION

- The Ohio State University (OSU), Columbus, OH
Ph.D. in Mechanical Engineering | GPA: 3.62 expected Dec 2020
Thesis: "Process Modeling of Ultrasonic Additive Manufacturing"
- Indian Institute of Technology, Madras, India
B.Tech. in Mechanical Engineering | GPA: 3.6 May 2015

QUALIFICATIONS

- Software: ANSYS, LabVIEW, SolidWorks, MATLAB, Simulink, JMP (for statistical analysis)
- Graduate level coursework in Non-linear Dynamics, Control Systems, Ultrasonics, Smart Materials and Constitutive Modeling of Materials
- Expertise in experimental techniques: Doppler velocimetry, modal analysis, nanoindentation
- 2+ years of experience in collaborative work with large multidisciplinary research teams

RESEARCH EXPERIENCE

Research Assistant, Dr. M. Dapino

- The Ohio State University**, Ultrasonic Additive Manufacturing Lab August 2015 – Present
- Developed electroacoustic models for power transfer in high-power piezoelectric transducers
 - Collaborated extensively with a materials research group to develop an energy-based process model to enable parameter selection for the metal joining using ultrasonic welding
 - Developed new measurement techniques to enable in-situ quality control and energy estimation

ENGINEERING EXPERIENCE

Summer Intern

- Caterpillar Inc., Chennai, India** May – July 2014
- Modeled hydraulic systems with restriction orifices and designed an automated system to retrieve system information and suggest optimal orifice parameters for the application
 - Selected to continue working with the institute in a collaboration project to simulate orifice flow models in ANSYS and for high-end software development in Microsoft Visual Studio

LEADERSHIP AND PROFESSIONAL INVOLVEMENT

- President, Association for India's Development February 2018 – Present
- Led a volunteer student organization that raises awareness for social programs in India

SELECTED PUBLICATIONS AND PRESENTATIONS

- Technical Presentation at the 18th International Conference on the Strength of Materials, 2018
- Poster Presentation at the Materials Week, The Ohio State University, 2019
- Technical Presentation at the Control and Decisions Conference, IEEE, 2015
- Technical Presentation at the Smart Vehicle Concepts Center semi-annual meetings, 2016 – 2019
- A. Hehr, G. Venkatraman, L. M. Headings, M. J. Dapino. "Effect of System Compliance on Weld Power in Ultrasonic Additive Manufacturing". In preparation.