

KRISHNAN GIRIDHARAN

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EDUCATION HISTORY

MS. Mechanical Engineering, Worcester Polytechnic Institute (WPI) Aug 2019-May 2021

B.Tech. Mechanical Engineering (Minor in Machine Design), Manipal Institute of Technology 2015-2019

INDUSTRIAL EXPERIENCES

Mechanical Design Intern at L&T Defence; Talegaon, Pune, India. 14th May- 14th July 2018

Developed a Physical and Mathematical Model that best approximates the tank treads of howitzers was derived. Using the model, the distribution of forces along the entirety of the tread was obtained.

Mechanical Intern at OmanAir (Oman Aviation Services); Seeb, Muscat, Oman. 2nd July- 22nd July 2017

Underwent department-specific training in the Aircraft Engine Workshop, Non Destructive Testing Workshop, Aircraft Wheels and Brakes Workshop, and Development Engineering Workshop. A 3D model of the GENx-1B was made using CATIA in the Aircraft Engineering Workshop.

Project Management Intern at Tata Steel; Jamshedpur, Jharkhand, India. 9th May- 27th July 2017

Developed a strong understanding of the processes involved in the construction, and maintenance of a Coke Dry Quenching Plant (CDQ). Provided an Activity Schedule (using MS Project) for the Refractory Section of the CDQ Plant based on the learnings obtained.

ACADEMIC EXPERIENCES

Teaching Assistant (TA), Worcester Polytechnic Institute, Worcester, MA, USA 15th Jan 2020- Present

Assigned TA position for ES2502- STRESS ANALYSIS- Prof. Mehul Bhatia (Assistant Teaching Professor).

Directed Research (DR), Worcester Polytechnic Institute, Worcester, MA, USA Aug 2019- Present

Working under the guidance of Professor Sneha Narra (Assistant Professor) on the development of analytical models for the mechanical properties of periodic lattice structures printed using varied AM methods.

Final Year Project (B.Tech), Manipal Institute of Technology, Karnataka, India Jan- May 2019

A Mechanical Variable Damper was firstly designed. A physical model of the damper was fabricated and tested. Using an Arduino it was converted into a semi-active vibrational damper.

ACADEMIC TRAINING

Summer Training at RWTH Aachen University; Aachen, Germany 07th Aug- 25th Aug 2017

During the course of the 3-week training, topics like Motion Planning related Challenges in Industrial Robotics, Fundamentals of Robot Learning and Control Theory, Introduction to Multi-Robot Systems, were covered.

Winter Training at Manipal Institute of Technology; Manipal, Karnataka, India 10th Dec- 31st Dec 2016

Training was provided on Operating the IRB2600 robotic arm and on coding for it using RAPID. Obtained experience in using the software RobotStudio for the same.

ACADEMIC SKILLSET

Software-Related Proficiency- CATIA, AutoCAD, Solidworks, ANSYS Mechanical APDL, C, C++, MATLAB, RAPID, MS Project, Photoshop;

Machinery-Related Proficiency- Vertical Drilling, CNC Milling, Ultimaker-3, Lulzbot TAZ-6, ABB-IRB-2600

AWARDS/ ACHIEVEMENTS

Robert H. Grant Innovation Award (2nd Place) - The contest for the award involved the design of a manufacturing system using the principles of Axiomatic Design. A Large-Scale Indian Flatbread (Roti) Manufacturing Process was proposed.