

Rushit Virani

Bachelor of Technology(Hons.)(Pre-Final Year)
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EDUCATION

2017-Present	B.Tech(Hons.) in Mechanical Engineering, IIT Ropar CGPA: 7.71/10.
2015	Intermediate(12th Standard), Central Board of Secondary Education(CBSE) Board Percentage-90%.
2013	Matriculation(10th Standard), Indian Certificate for Secondary Education(ICSE) Board Percentage-90%.

EXPERIENCE & TRAINING

May-July 2017	Development of corrosion resistant surfaces via friction stir processing for bio-implant applications.
June-July 2016	Industrial internship in Multinational Company named Jyoti CNC Automation Ltd. Advisor: Mr. Vincent Dhabhi, Intern's Head, Jyoti CNC Ltd., Rajkot, Gujarat, India. The internship aimed at providing practical knowledge of manufacturing a Computer Numeric Control Machine from modeling its every part in Creo and its simulation in Hypermesh, in the R&D Department to casting of the designed parts in the Foundry Department, their machining in the Machine Shop and their final assembly in Assembly area.

ACADEMIC PROJECTS

Jan-Apr 2017	Material Characterization through X-Ray Diffraction and SEM & AFM. Advisor: Dr. Ravi Mohan Prasad, Assistant Professor, IIT Ropar , India. Understood the working of the XRD and SEM machine with its components and their functions. Performed graphical analysis using PANalytical software on various samples including the process of Ball-milling and the consequent broadening of X-ray spectra. Familiarized with other Material Characterization techniques which includes Optical Microscopy, Mercury Porosimetry, Nitrogen Adsorption, TEM, TGA, DSC, TMA, TPD, AFM and Infrared Spectroscopy.
Mar-Apr 2017	Fabrication and Characterization of Hair Reinforced Composites Advisor: Dr. Ravi Mohan Prasad, Assistant Professor, IIT Ropar , India. The Project aimed at using Biological Fibre(Hair) to make Fiber Reinforced Polymer (FRP) composites. Composites with different weight percent were made and their true stress-strain graph(found using Universal Testing Machine) were compared in order to find a relationship between Maximum tensile strength and Weight percent of Hair.
Jan-Apr 2017	Modeled and Fabricated a Mini Portable Hybrid Power Generator Advisor: Dr. Prabir Sarkar, Assistant Professor, IIT Ropar , India. The project aimed at manufacturing a small product that can be used to produce electricity either using Wind or running water. The product was designed for specific user's like Trekker's that usually do not have a source of power. The product consisted of replaceable blades and a dual mechanism that can switch between two different gear ratio for producing power through Wind or running water.
Jan-Apr 2016	Modeled and Fabricated a Stair climbing cart Advisor: Dr. Anshu Dhar Jayal, Assistant Professor, IIT Ropar , India. The Project aimed at manufacturing a product that can be used to maneuver goods up the stairs by a combination of three wheels on both sides in such a way that to produce rotatory motion while climbing up the stairs.

SKILLS & RELEVANT COURSEWORK

CAD Software's	Solid works, Creo, Abaqus.
Languages	HTML&CSS, C, C++, Java, Latex.
Software's	Matlab, Origin, Opensim.
Courses	Material Science & Engineering, Mechanics of Materials, Advanced Material Characterization Techniques, Theory of Machines, Energy Science & Technology, Classical Mechanics, Fluid Mechanics, Engineering Mechanics, Product Design and Realization, Molecular Cellular & Tissue Biomechanics.

ACHIEVEMENTS, POSITIONS & MEMBERSHIP

April 2017	Active member of SAE (Society of Automotive Engineers) India and SAE IIT Ropar Collegiate club.
March 2017	Main Co-ordinator with the media team, MTV that covered the annual cultural fest of IIT Ropar, held in March 2017
February 2016	Member of Event Management Team of 'Zeitgeist' , annual cultural fest of IIT Ropar, held in Feb 2016
September 2015	Member of the Editorial Team of College Magazine 'KSHITIJ', of IIT Ropar from September 2015 to September 2017.
August 2015	Active member of Society of Mechanical Engineers(SME), IIT Ropar. Attended various professional talks under SME. Elected as the Batch Representative of SME from August 2015 to August 2016.
June 2015	Cracked IIT-JEE (Indian Institute of Technology Joint Entrance Exam) with All India Rank 4544 out of 1.3 million aspirants(Percentile of 99.65%).