DHAGASH DESAI

dhagash.1@iitj.ac.in | +918128972357

EDUCATION

Indian Institute of Technology, Jodhpur
B.Tech in Mechanical Engineering
Expected May 2019
CGPA: 5.72/10

Shree Narayana Guru Vidhyalaya
Grad. May 2015 | Ahmedabad, Gujarat
GHSEB Board XII: 85%
GSEB Board X: 82%

COURSEWORK

UNDERGRADUATE

Computer Programming
Linear Algebra and Calculus
Complex Analysis and Differential Equations
Probability Statistics and Random Processes
Kinematics of Mechanisms and Machines
Dynamics of Machines and Mechanisms

RESEARCH INTERESTS:

Autonomous Navigation
Human Robot Interaction
Robotics
Agricultural Robotics

SKILLS

ROBOTICS PROGRAMMING

ROS   MATLAB

PROGRAMMING

Python   C++
HTML   Arduino

OTHER SOFTWARES

Solidworks   ADAMS
Cinderella

EXTRA CURRICULARS

Captain, Robotics Club, IIT Jodhpur.
Core Member, E-Cell, IIT Jodhpur.
Assistant Head, Publicity and Media IGNUS'17.

PROJECTS

Design and Development of Vision based Compact AGV for industries.
Dr Suril Shah, Dr Kaushal Desai | IIT Jodhpur   *August 2017-Present*
- I am working on implementing autonomous navigation in AGV for industry having dynamic moving obstacles.
- Implemented RTAB-Map and RGBD SLAM on mobile robot. Currently working on improving accuracy of SLAM systems. For highly accurate navigation in industrial environment.

Investigation of multi-directional 3D printer for printing goods with improved quality.
Dr Suril Shah, Dr Kaushal Desai | IIT Jodhpur   *February 2017 – May 2017*
- The quality of 3D printed parts can be enhanced through multi-directional 3D printing. We used Stewart-Gough Platform as a 6D freedom 3D printer.
- I was responsible for controlling stepper-motor at a given rpm such that it prints the part and designed a cavity for heater thus reducing the time of the material to print.

Mechanism to allow paraplegic person to stand up in his wheelchair in order to play golf.
Dr Suril Shah| IIT Jodhpur   *February 2017- April 2017*
- We proposed a design to stand-up by pulling lever in course project of the course Kinematics of Machines and Mechanisms.
- I was responsible for motion study of human motion while standing up from the chair using Vicon and using the data from Vicon simulated the leg in MATLAB for trajectory planning.

Designed all terrain bot and gripper to pick up a cubicle box.
Robotics Club | IIT Jodhpur   *November 2016-December 2016*
- Competed in Techfest'17 under the event Galactic Tropper.
- Were among the 60 teams to complete the course.
- I was responsible for design of gripping mechanism.

Robot that can translate up and down between two fixed frames.
Dr B.Ravindra | IIT Jodhpur   *May 2016-July 2016*
- Made a robot that can translate up and down between two fixed frames and its width can be varied upto 5 cm.
- I was responsible for the design and control of the bot.

4 Degrees of Freedom Robotic Arm controlled solely by Arduino app.
Dr B.Ravindra | IIT Jodhpur   *November 2015-December 2015*
- Made a 4 degrees of freedom arm that can pick up a ping pong ball and shoots the ball at a certain target.
- Responsible for the Arduino app using MIT App Inventor and also for the design mechanism to shoot the ball that was picked up by gripper

ACADEMIC ACHIEVEMENTS

Year	Name	Description
2017, 16	MYSY	Selected for the scholarship given by Gujarat government to meritorious student.
2017	Robocademy	Among the top 5 Indian students selected for the ROS course taught by Lentin Joseph.