Siril Teja Dukkipati

sirilteja2012@gmail.com | +91-9573835454| LinkedIn: /siril-teja-dukkipati/
Apt 19, 3565 Durocher, Montreal, CA.

EDUCATION

Manipal Institute of Technology Manipal, IN

BACHELOR of Technology in Mechanical Engineering; CGPA: 9.09/10.0 *Expected MAY 2020*

Minor Specialization: Design

Relevant Coursework: Engineering Mathematics, Physics, Biology, Management, Fluid mechanics, Thermodynamics, Heat Transfer, Automobile Engineering, Mechanical Design, DFMA, Fatigue and Fracture, Finite Element Methods, Vibrations, Data Science.

Research Interests: Robotics, Biomechanics.

SKILLS

- **Languages**: C++, Python
- **Design tools**: Catia, Solidworks, AutoCAD, Fusion 360
- **Analysis tools**: Ansys, Adams
- **Programming tools**: Matlab, LabView

PROJECTS

Mars Rover Manipal Manipal, IN

Research Lead *JUN 2018 – MAY 2019*

Mechanical Subsystem member – Robotic Arm *DEC 2016 – MAY 2018*

- Lead a team of 6 undergraduates, working on projects like Autonomous bicycle, 7DOF Robotic arm, underactuated grippers.
- Developed a 6DOF robotic arm which has abilities of equipment servicing and object manipulation with precision and power grasp.

IRC 2017: Indian Rover Challenge, First ever rover robotics competition in Asia.

- Won 1st place all over the world in the inaugural IRC.

URC 2018: University Rover Challenge, an international premier robotics competition organized by Mars Society, USA.

- Developed a Mars Rover prototype and competed at URC 2018 at Mars Desert Research Station, Utah, USA.
- Won 7th all over the world, 2nd in Asia.

IRC 2018: Indian Rover Challenge 2018

- Organized an International robotics competition with the help of Mars Society USA in Manipal, India.

Mahindra Powerol Pune, IN

R&D Intern *MAY 2018 - JUN 2018*

- **Genset Optimization**: Performed various tests like noise levels, Fuel Consumption, Power quality, Temperature, Efficiency and presented methods to optimize gensets with power ratings of 320, 125, 5 KVA.

  Program for Engine Exhaust design: Developed a program in Matlab to get specifications of parameters like exhaust pipe diameter, height of mountings etc, depending on parameters like engine back pressure, temperature etc.

Perma-Liner Manipal, IN

R&D Manager Intern *MAY 2019 – Present*

- **Crawler bot**: Founded and leading a team to design and assist the R&D team of Perma Liner in designing a crawler bot that has abilities of Pipe mapping, navigating, cleaning etc.

Musculoskeletal Biomechanics Research Lab, McGill University Montreal, CA

Research Assistant *MAY 2019 – Present*

- **Robotic Spinal Cord**: Implementation of control algorithm on an analogous Spinal Cord equipped with McKibben air muscles. Integration of position and force sensors, microfluidic valves for pressure control in the muscles with a PID controller in LabVIEW.

Mars Society South Asia IN

Technical Coordinator *MAY 2019 – Present*

- Responsible for technical aspects of the functioning of MSSA. Focused towards spreading knowledge about Mars Missions, Space explorations. Focused on conducting manned missions to Mars Desert Research Station, Utah, USA.

PUBLICATIONS

- "Development of Chebyshev lambda under actuated gripper with slip prevention strategy for fragile objects" submitted to "The international journal of robotics research and application" and is in process for publication.
- "Design and analysis of underactuated gripper using Chebyshev lambda mechanism with slip preventive strategy for fragile objects", presented in Second International Conference on Advancements in Automation, Robotics and Sensing – ICAARS 2018, Manipal Research Colloquium- MRC 2018.

AWARDS & ACHIEVEMENTS

- Rubin Gruber SURE Award-2019 by McGill University, Montreal, CA.
- Manipal Scholar Award-2017 by Manipal University, IN.
- Finalist in Provenance-2018, a B-Plan competition organized by Technology Business Incubator, MAHE.
- Token of Appreciation-2018, for enhancing the reputation of MAHE through Mars Rover Manipal.
- Higher Distinction in IAPT-2016, International Association of Physics Teachers.