Curriculum Vitae

S P Krishna Phanindra

phanindraspk@gmail.com

91-7989455190

Education

June 2019— *Ongoing*	**Degree:** PhD (PMRF fellow) in Engineering Design **Where:** Indian Institute of Technology, Madras, Chennai, India **GPA:** 9.00 of 10.0 Computational modeling and simulation
August 2014— *May 2019*	**Degree:** Dual Degree (BTech+MTech) in Engineering Design **Where:** Indian Institute of Technology, Madras, Chennai, India **GPA:** 9.19 of 10.0 Specialization in Automotive Engineering Minor in Physics
Jul 2012— *May 2014*	**Degree:** Board of Intermediate Education (Secondary school) in MPC **Where:** Narayana Junior college, Hyderabad, India **GPA:** 9.81 of 10 Maths, Physics, Chemistry

Research

May 2019— *Ongoing*	**Project:** Modeling failure in fluid-structure interaction (FSI) problems **Where:** IIT Madras, India **Advisor:** Dr. Srikanth Vedantam **Contributions:** • Developed a novel particle-based FSI simulation framework in C. • Demonstrated the ability of the model to simulate solids of different constitutive behavior and undergoing failure.
May 2017— *July 2017*	**Project:** Cooling PV modules using an underground heat exchanger **Where:** TUM, Germany **Advisor:** Dr. Markus Spinnler **Contributions:** • Developed a model in MATLAB to simulate the working of a PV panel integrated with an underground heat exchanger. • Tuned the sensitive parameters using a Genetic algorithm for increased efficiency and reduced condensation.

May 2018—	**Project:** Exploring space filling curves for heat exchanger design
May 2019	**Where:** IIT Madras
	Advisor: Dr. G Saravana Kumar
	Contributions:

- **Presented a paper** titled "Analysis of a compact heat exchanger concept based on space-filling curves" at the IHMTC-ASTFE Heat and Mass transfer conference held December 28-31, 2019 at IIT Roorkee, India.

Industrial Experience

December 2017—	**Position:** Research Intern
May 2018	**Where:** Siemens Technology, Bangalore

- Developed a novel simulation methodology to predict erosion caused by electric currents in drive bearings.
- Demonstrated its ability to predict the remaining useful life of the bearings by integration with a digital twin.

Patent filed

- **European patent granted**. ("System, Apparatus, and Method of determining remaining life of a bearing", EP18209549.7)

Positions of responsibility

December 2017—	**Position:** Placement coordinator
May 2018	**Where:** IIT Madras

- Coordinated and assisted various global companies during their campus recruitment process.
- Contacted and invited over 70 new companies with a team of 6 members.

Technical experience

Software
ANSYS, Solidworks, Python, LaTeX, C, Mathematica, MATLAB, Simulink

Honors and awards

- Dr. K Gopinath and Padmini Gopinath Prize for **best academic record in Dual Degree Programme** for the year 2019, IIT Madras.