Ranga Teja Pidathala
M.tech Scholar
Department of Material Science and Engineering,
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Objective

To associate myself with Research and Development projects in the core areas of Mechanical & Materials Science and Engineering specifically in the field of Computational Material design and modelling, Atomistic Simulations like Molecular Dynamics, Monte Carlo simulations, First principle calculations like Density functional theory and applying them to study Grain, Grain Boundaries, to study deformation mechanisms of materials, nanomaterials self assembly and stability studies, to simulate biomaterials in biological environment, optoelectronic properties of materials and take them up with the highest commitment and dedication.

Education

Year	Institute	CGPA/%	Level
2018-current	Indian Institute of Technology, Gandhinagar	8.60(current)	M.Tech
2012-2016	Vignan's University,Guntur,Andhra Pradesh	86.6%	B.Tech
2010-2012	Narayana Junior College,Telangana	87.3%	(10+2)
2010	Ravindra Bharathi School,Telangana	91.1%	Tenth

Projects and Internships

- **IIT,Gandhinagar (Independent project) Prof. Raghavan Ranganathan [Jun'19-current]**
  - Study on Deformation mechanisms in High Entropy Alloys using Molecular Dynamics
  - Study on grain boundary segregation using Hybrid MD(Molecular dynamics + Monte Carlo)
- **IIT,Gandhinagar (M.tech Thesis) Prof. Abhay Gautam & Prof. Superb Misra [Dec'18-current]**
  - Failure detection of Bio- Implants using stable isotopic tracers.
- **Vamshi Rubber Limited, Hyderabad(B.Tech Thesis) Mr. Shiva [August'15-Dec'15]**
  - Studied the detailed process flow for manufacturing of Pre-cured Tread rubber for tyre retreading.
- **IIT,Guwahati (summer Internship) Prof. Chandramohan Somayaji [May'15-Aug'15]**
  - Undertaken an experimental work of optimizing the process of sensible heat thermal energy storage system.
  - Computation model was made for the same using COMSOL Multiphysics software.
- **Human Powered Vehicle Challenge ASME [Dec'14-Jan'15]**
  - Designed a "HUMAN POWERED VEHICLE" and participated in the competition on human powered vehicle challenge conducted by American Society for Mechanical Engineers at "Delhi Technical University".
- **Jawaharlal Nehru Technological University Hyderabad(winter Internship) [6th Jan'14-12th Jan'14]**
  - Participated in "Industry Internship Programme on Automobile & Engine Designing using Reverse Engineering methods" conducted by SGT International & Metawing Technologies Pvt Ltd.

- **Volvo Eicher Commercial Vehicles Ltd. (summer Internship) [May'13-Aug'13]**
    - Undergone hands-on training for two months on "Eicher Heavy vehicles" at the authorized Workshop of M/s Volvo Eicher Commercial Vehicles, Autonagar, Hyderabad.

Computational Skills

- Operating System : Windows, Ubuntu.
- Programming : Basics of C, Fortran, Scilab, Python, MATLAB programming.
- Softwares : Basics of Ansys, Creo, Comsol Multiphysics.
- Molecular Dynamics : Basics of implementation of Molecular dynamics algorithm using Matlab
- Molecular Dynamics tools : Basics of Lammps, Gromacs.
- DFT tools : Basics of Quantum Espresso.
- High Performance Computing: Handling HPC for job submissions using SLURM job scheduler
- Machine Learning : Basics of implementation of Machine Learning algorithms using Jupyter

Competencies

- Worked as a Teaching Assistant for " MA 602: Advanced Numerical Methods in Engineering" and contributed in writing MATLAB codes for various numerical methods and teaching the same to graduate students, under the guidance of **Prof. Raghavan Ranganathan**, **Prof. Mohan Joshi** and **Prof Anand Sengupta**.
- Worked as a Teaching Assistant for " MSE 632: Characterization of Materials", and taught material characterization techniques for postgraduate students under the guidance of **Prof. Superb Misra.**
- Worked as a Teaching Assistant for "Foundation Programme: Introduction to Engineering", a course for 1st year B.Tech students under the guidance of **Prof. Mithun Radhakrishna.**
- Worked as a Teaching Assistant for "MSE 303: Mechanical Behaviour of Materials Laboratory" and taught 3rd year undergraduate students under the guidance of **Prof. Amit Arora.**
- Hands on practise on the **"Physical Vapor Deposition"** Machine.
- Capable of leading the teams with good communication & delegation skills.
- Led the Team HP VIGNAN in building the human powered vehicle and participating in ASME competition(undergraduate).

Academic Achievements

- Stood in second place in overall CGPA of 8.5 in the Materials Science and Engineering Discipline, IIT Gandhinagar(Postgraduate).
- Stood in second place in overall 4 year aggregate marks in the Mechanical department, vignan's university.(undergraduate)
- Secured the Cash Award & appreciation from the University for Academic Excellence (Highest marks in the 3rd year University Examinations).(undergraduate)
- Secured the Cash Award & appreciation from the University for Academic Excellence (Highest marks in the 2nd year University Examinations).(undergraduate)
- Secured the Cash Award & appreciation from the University for Academic Excellence based on the performance during 1st year B.Tech Examinations.(undergraduate)

- Got 49th Rank in the National level exam conducted by “Unified Cyber Olympiad-2009” while studying at Ravindra Bharathi School.
- Secured a rank in the State Level Talent Search Examination (AP) -2008 while studying Class 8.

Personal Details

- Family Background : Father is an Automotive Engineer; Mother is Homemaker.
- Languages known : English, Telugu, Hindi.
- Temporary Address : F-261/ Firpeal Hostel, IIT Gandhinagar, Palaj,Gujarat-382355.
- Permanent Address : Flat No:102, Tara Grandeur appts, M & H colony, Vanasthalipuram, Hyderabad, Telangana-500070.

Hobbies

- Playing sudoku,listening Music.
- Cooking multi cuisine dishes.
- Following defence related news.