

Jarapala Krishnakanth Naik | 15MF3IM06

MANUF. SCI & ENGG.IND. ENGG.MAN. (M.Tech Dual 5Y)



EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2020	M.TECH Dual Degree 5Y	IIT Kharagpur	6.71 / 10
2015	Intermediate Public Examination	BIEAP	94.9%
2013	SSC	BSEAP	9.2 / 10

INTERNSHIPS

Internship | @MES-Tech | Descriptive Analytics on Industry 4.0

May - July 2019

- 1. Descriptive analysis of DAIMLER production plant data for identification of Bottleneck Stations, Departments, Lines, Shops, Defects and Variants which are affecting the efficiency of the plant.
- Data cleaning using Excel to remove missing values and outdated information from the data and to improve the quality of data.
- 3. Data Visualization using Tableau and Factory Talk Analytics to visualize complex data and to understand trends, outliers, and patterns in data and also for preparing interactive dashboards and reports.
- 4. Identified trends and patterns of Bottleneck Stations, Departments, Shops, Defects, and Variants.
- 5. Identified the relation between lead time and line stop by patterns obtained and how new Variants affect the line stop.

Internship | @Ford India Private Limited | Energy Conservation on Water Cooling Towers

June - July 2018

- 1. Worked on water cooling towers to minimize power consumption and water consumption.
- 2. Examined the design of cooling tower fan and noticed major drawbacks of power consumption was due to blade-angle and profile of cooling tower fan.
- 3. Analyzed the current profile of cooling tower fan and observed that a portion of the blade was not aerodynamically designed.
- 4. Proposed a new design of fan which would reduce power consumption by allowing hot air to escape from the tower at a faster rate and successful in reducing power consumption by maximum of 45% and an average of 22 % with a payback period of just 6 months.

PROJECTS

B.Tech Project | Fluid Flow on a Fractured Surface

July - Nov 2018

- 1. Fabricated parallel-plate configuration transparent prototype to observe the fluid flow and dispersion over the fractured rough surface under the supervision of Dr. Aditya Bandopadhyay.
- 2. Used 1-Hp motor pump to transmit water over the surface and injected a dye to observe the fluid flow path.
- Experimental results show that the fluid flow over a fractured surface often occurs in preferred flow paths and which also depends on Hurst exponent of the fractured rough surface.

Academic Design Project | Railway Passenger Car Suspension System

Jan - Apr 2018

- 1. Worked along with a team on a Watts Straight-line mechanism for arresting to and fro movement in a railway passenger car suspension system under the guidance of Prof. Sovan Lal Das.
- Proposed to attach a new 3 bar-link to the current suspension system which will arrest to and fro movement and helps to move passenger car without any disturbance.

POSITIONS OF RESPONSIBILITY

General Secretary Sports & Games | Vidya Sagar Hall of Residence

July' 2017 - Apr' 2018

- 1. Elected by an electorate of 358 students to represent our hall in inter-hall general championship, IIT Kharagpur.
- During my tenure, I actively lead the team in many events and successfully brought a huge raise in graph.
 We won 3 gold and 1 bronze medals in athletics-2017-18 which was after 4 years and gave tough competition in badminton as well as in cricket to the opponents.

Secretary Sports & Games | Vidya Sagar Hall of Residence

July' 2016 - Apr' 2017

1. During my tenure, I organized several practice sessions for various sports and made sure that there was active participation from the students of my hall in inter-hall and inter-IIT competition.

Web Developer | Food and Mess Monitoring Committee

July' 2016 - Apr' 2017

- 1. Developed a portal for students to complain about their mess problems, when a student raise complaint in the portal, the general secretary mess of respective hall would be notified and we would be monitoring whether action has been taken or not.
- Took part in raids on eateries and resturants in IIT Kharagpur for ensuring they are using the best quality raw materials.
- 3. Responsible for managing all the reports of eateries and restaurants which would be forwarded to director of IIT Kharagpur.

SKILLS AND EXPERTISE

- 1. Computer Skills: Solid Works, MS Office, Excel
- 3. BI tool: Tableau, Factory Talk Analytics
- 2. Programming Languages: C, C++, Python (Numpy, Pandas)
 4. Web Technologies: HTML, CSS, Bootstrap (Framework)

COMPETITION/CONFERENCE

1. Qualified amongst 1.3 million applicants in JEE Mains and cracked amongst 150K applicants in JEE Advanced.

COURSEWORK INFORMATION

- 1. Probability and Statistics
- 4. Operations Research
- 7. Heat Transfer
- 10. Work System Design
- Programming and Data Structures
- 5. Robotics and Computer Controlled Machines8. Logistics and Supply Chain Management
- 11. Intelligent Machines and System

- 3. Statistical Decision Modelling
- 6. Game Theory and Applications
- 9. Facility Layout and Design
- 12. Foundations of Entrepreneurship

EXTRA CURRICULAR ACTIVITIES

- NCC B certificate holder and also participated in combined annual training camp. NCC cadet for two consecutive years 2015 2017 and enrolled in Battalion -1(B) EME-COY NCC Kharagpur.
- Completed Machine Learning by Andrew NG course, applying the skills in my M.Tech project for predicting the lead time of new variant and to optimize current line-stop in the production plant (DAIMLER).
 Actively participated in various sports like Cricket, Athletics, Volleyball on the behalf of Vidya Sagar hall of residence in inter hall
- competition, IIT Kharagpur and finalist in athletics 100 &200 meters sprint running in inter hall Competition, IIT Kharagpur.