

# SHIRISH BHARATI

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M. Tech (Industrial and Management Engineering)

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ACADEMIC QUALIFICATIONS			
Year	Degree	Institute	Performance
2018-Present	M.Tech (Industrial and Management Engineering)	Indian Institute of Technology, Kanpur	6.00
2015	B.Tech (Mechanical Engineering)	VNIT, Nagpur	6.2
2010	Class XII ( ISC )	Tagore Academy, Jamshedpur	73.00
2008	Class X ( ICSE )	Tagore Academy, Jamshedpur	85.86

## WORK EXPERIENCE

**JSW Energy Ltd. – Jaigad, Ratnagiri | Graduate Engineer Trainee (Mechanical Maintenance) July 2015 – July 2016 (12 months)**

- Responsible for performing routine maintenance of critical equipment for Coal Mill area, Flue Gas Desulphurization unit and Air Pre-Heater area in a 4x300 MW thermal power plant.
- Involved in various plant shutdown activities, planning and processing of the Coal Mill area and in the light up (of boiler) planning and processing activities.

## SUMMER INTERNSHIPS

**Boothwise Constituency Analysis and Visualization on Dashboard Mentor: Zeeshan Haider May-July 2019**

Problem Statement: The objective of the project was to create an Analytics dashboard for political parties which can be used as a powerful tool in political decision making.

Functionalities: Dashboard includes constituency wise list of voters, Tabs for real time campaign management, Google maps to view the Demographic distribution of Data and Results on Maps, Bulk messaging capabilities, Various reactive visualization for Booths, Previous Results Analysis to calculate persuadability of voters, partywise vote distribution and projected turnout.

Tools Used: Web Scrapping and Text Mining to create Voter Database using Python Selenium framework and Pyautogui library, R shiny helped in creating interactive webpages and used shiny server to host the dashboard, used Plivo integration of R for bulk messaging, used Excel for Booth mapping and Python for cleaning and automating the process of Result calculations and analysis.

**Friction Stir Welding - Dr. Rajneesh Kumar, Jamshedpur, NML (29th May – 1st July 2013).**

The project involves the study of a modernized welding process that uses a high speed rotating tool to increase the temperature of two aluminium samples and welds them together due to high temperature fusion.

**Tata Steel – Wire Rod Mill plant, Jamshedpur (13th May – 16th June)**

PROJECT TITLE – To improve the reliability of power and free conveyor.

Detailed survey and analysis on the different parts of power and free conveyor, their mechanism and working.

## ACADEMIC PROJECTS

### ACADEMIC (B.TECH) PROJECT

**Power generation by load application.**

Project Guide- Dr. A. A. Thakre, VNIT Nagpur (July, 2014 - Feb, 2015)

Studied and built a mechanical system that produces electrical energy by the application of load on the system using a rack and pinion (GR 2:8) arrangement with the help of an AC Dynamo to generate current.

### ACADEMIC (M.TECH) PROJECT

**Data Analytics based project: WSDM - KKBox's Music Recommendation Challenge.**

- To predict the chances of a user listening to a song repetitively within a time window.
- Applied various data cleaning and visualization techniques on a training data set and a test data set that consisted of 7.3 million data sets.
- Used various models such as LOGISTIC REGRESSION, XGBOOST, NAIVE BAYES & RANDOM FOREST.

**Analysis of Factors Affecting Death Rate caused by Cancer.**

- Used datasets to analyze causal effect of: 1. Economic factors 2. Ethnicity/Race on death rate due to cancer. Linear regression with single independent variable as well as multi-variate linear regression applied to get the causal relationship.

**Forecasting of Nifty daily closing points using Arima model and it's application in Intra-day Trading.**

- Forecasted the Nifty closing points for the 10 days using data from previous 248 trading days.
- Used various Testing methods for "stationarity", visualized with and without first difference and then finally applied the model "Auto-Arima" for forecasting the next 10 days values.

## POSITIONS OF RESPONSIBILITY

- Departmental Treasurer, Industrial & Management Engineering, IIT Kanpur.

## AWARDS & ACHIEVEMENTS

- Bagged 1st position in **POOL** in Fresher's tournament INFERNO, 2018 at IIT Kanpur.
- Bagged 2nd position in **FUTSAL** in Fresher's tournament INFERNO, 2018 at IIT Kanpur.
- Part of the winning team in **Football** tournament "Intramural Competition, 2011" at VNIT Nagpur.
- Bagged 1st position in **Football** in Institute gathering, 2013 at VNIT Nagpur.
- Bagged 2nd position in **Football** in Institute gathering, 2014 at VNIT Nagpur.
- Participated in **ALL INDIA Inter NIT Football Tournament** 2013-2014 at NIT Surathkal.
- Participated in **Football in ALL INDIA Inter NIT Sports Tournament "Compete 2013"** at SVNIT Surat.
- Got 1st position in Institute gathering in **DANCE** in my 3rd year of B.Tech.
- Got 1st position in Institute gathering in **FIFA** in my 3rd year of B.Tech.
- Achieved 1<sup>st</sup> position in **Solo Dance** in Intra-School Competetion, 2008-2009.
- Bagged 1st position in **Photography and Photoshop, Etrix** (Inter School Competition, 2009), organized by Loyola School, Jamshedpur.
- Achieved 2nd position in **Solo Dance** in Intra-School Competetion, 2009-2010.

**COURSEWORK AND SKILLS**

<b>Relevant Courses</b>	Probability & Statistics   Introduction to Computing   Operations Research for Management   Data Mining and Knowledge Discovery   Computer Aided Decision Support Systems   Statistical Modeling for Business Analytics   Advanced Decision Models   Software Project Management   Supply Chain Management   Analytics in Transport and Telecomm.
<b>Technical Skills</b>	Java, C, C++, MATLAB, HTML, MS-Excel, MS-Word, MS-Powerpoint, Adobe Photoshop, R-programming, Python