# SOMYA SHARMA

M. TECH, INDUSTRIAL & MANAGEMENT ENGINEERING

**EDUCATION DETAILS** 

Year	Degree	Institute	CPI/%	
2018 - Present	M.Tech (Industrial & Management Engineering)	Indian Institute of Technology, Kanpur	8.25*	
2013 - 2017	B.Tech (Industrial & Production Engineering)	College of Technology, G.B.P.U.A.T., Pantnagar	75.55	
2013	Class XII, ISC	Convent of Jesus and Mary, Dehradun	90	
2011	Class X, ICSE	Convent of Jesus and Mary, Dehradun	91.57	

## **SUMMER INTERNSHIP**

SARDA Group
Project Title: Process Mapping for Business Process Reengineering – Updating the As-Is Methodology and developing a Project Methodology

Mapped the As-Is process of the Feeding process at SARDA farms for BPR using Microsoft Visio.

Updated the existing As-Is Methodology with reference to problems faced while mapping the Feeding process, and made necessary changes to make the methodology more robust.

Updated the methodology to provide guidelines to map processes without an established formal structure.

Developed a Project Methodology to go about similar projects and serve as an aid in the future.

### **ACADEMIC PROJECTS**

**Subject:** Stochastic Processes & their Applications

**Term Paper Title**: Martingale Processes and its Applications

Jan 2019 - Apr 2019

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- Applying Martingale Stopping Theorem to study Constrained Random Walk (Gambler's ruin problem).
- Applying Martingale Convergence Theorem to study an Urn process and verifying the results using Python.
- Simulate stock prices using Geometric Brownian motion where martingale properties hold.

**Subject**: Statistical Modelling for Business Analytics

<u>Project Title</u>: Graduate Admission Predictions – Linear & Multiple Regression

Jan 2019 - Feb 2019

- Study the effects of various academic performance parameters of a student on the chances of selection in a university.
- Linear Regression and Multiple Regression models were applied on the data using R.
- The models were compared and the best model was selected with reference to residual plots and R<sup>2</sup> values obtained

**Subject:** Statistical Modelling for Business Analytics

<u>Project Title</u>: Monthly Auto Sales in the US – Time Series Analysis

Mar 2019 - Apr 2019

- Predicting monthly auto sales in US by fitting ARIMA model using R to the historical data and creating a basic forecast.
- Performed Exploratory Data Analysis, Data Cleaning and Dickey Fuller Test.
- The best model was selected based on AIC value and validated. It was used to predict sales for next 24 months.

**Subject**: Design of Production Systems

<u>Term Paper Title</u>: Reliability Improvement Warranty

Sept 2018 - Nov 2018

- Understanding the concept of RIW and studying various terms in a RIW contract.
- Studying RIW objectives and the process towards making a RIW agreement.
- Studying Life Cycle Cost Model for evaluating RIW.

## COURSEWORK & SKILLS

Relevant Courses	Probability & Statistics   Operations Research for Management   Introduction to Computing   Design of Production Systems   Statistical Modelling for Business Analytics   Stochastic Processes & Its Applications   Computer Aided Decision Systems   Manufacturing Planning & Control   Supply Chain Management	
Technical Skills	ills R   Python   Java   HTML   PHP   SQL   LINGO   MS Office	

## POSITIONS OF RESPONSIBILITY

Student Nominee, SPGC, IIT Kanpur	Student representative for matters concerning PG Academics.	Sept '18-Present
Member, Students' Senate, IIT Kanpur	Student body for co-curricular & extra-curricular matters.	Sept '18-Mar '19
Member, PG-SAC, IIT Kanpur	Grievance redressal and propositions of PG students.	Oct '18-Mar '19
Vice Chairperson, ETS, COT	Organised technical events & workshops in college.	2016-17
Joint General Secretary, ETS, COT	Organised technical events & workshops in college.	2015-16
Co- Convener, Colosseum '17	Organised the national level technical fest of COT, Pantnagar.	

### AWARDS & ACHIEVEMENTS

Co-Curricular	• Received ISC 2013 scholarships for highest in Physics, Chemistry & Science at the school level in class XII.
	• Secured the first prize in District level Numerical Ability Test in Class X.
Extra- Curricular	Volunteer for Unnat Bharat Abhiyan, IIT Kanpur Chapter.
	• Graduate in 'Kathak Dance' from Prayag Sangeet Samiti, Allahabad.
	• Secured third position in 5 km Marathon held on the occasion of Gandhi Jayanti 2018 at IIT Kanpur.
	• Junior Diploma in 'Classical Vocal Music' from Prayag Sangeet Samiti, Allahabad.
	• NSS 'B' and 'C' certificate holder for guiding and nurturing 200 underprivileged children.
	• Taught children of ages 8-12 at the Akhil Bharatiya Ashram for Girls, Dehradun in 2012.