

# Shashank Gautam

LATEST CURRICULUM VITAE

### A journey towards Success

## **Objective**

To work in a progressive and leading organization that enhances my technological skills & innovations, and fosters continual learning among its members, where I can utilize my professional caliber for the betterment of organization as a whole and for personal development as well.

### **Current Research Interest**

- Thermal Science & its applications, Industrial Engineering, Production Engineering.
- Operations Research, Numerical Methods, Computational Graphical Methods.

### **Specialization**

- Mechanical Engineering.
- Operations Research, Graph Theory.

### **Education**

2015-2017	M.Tech. in Operations Research, passed with 7.63 CGPA from <i>National Institute of Technology Durgapur</i> , Durgapur 713 209, India.
2010-2014	<b>B. Tech. in Mechanical &amp; Automation Engineering</b> , passed with <b>75.53%</b> from <i>G.B. Pant Govt. Engineering college</i> , Delhi 110 020, India
2009-2010	Senior Secondary Certificate, passed with 69.40% from Vivekanand School, Delhi 110 092, India.
2007-2008	<b>Higher Secondary Certificate</b> , passed with <b>84.71%</b> from <i>Fatima Convent School</i> , Ghaziabad 201 001, India.

# **Full Time Research Experience**

Institute Research Fellow, National Institute of Technology Durgapur, India. I have completed my project work at Department of Mathematics, National Institute of Technology Durgapur in April 2017.

### **Research Work**

**Title** : Study of various theorems on Vizing's Conjecture.

**Supervisor**: Anita Pal, Assistant Professor, Department of Mathematics, National Institute of

Technology Durgapur, Durgapur 713 209, India.

**Description**: Vizing conjectured in 1963 that the domination number of the Cartesian product

of two graphs is at least the product of their domination numbers; this remains one of the biggest open problems in the study of domination in graphs. Several partial results have been proven, but the conjecture has yet to be proven in general. The purpose of the research is to study Vizing's conjecture, related results, and open problems related to the conjecture. We provide a survey of classes of graphs that are known to satisfy the conjecture, and of Vizing-like inequalities and conjectures for different types of domination and graph products. We also give an improvement

of the Clark-Suen inequality.

# **Professional Experience**

#### **TEACHING:**

- Taught at **THE GATE ACADEMY** Durgapur from **2015-17**.
- Associated with **Unacademy** for past 4 months.
- Currently working as **Freelancer faculty**.

#### **MANAGEMENT:**

- Worked at S.S. Bottmac Engineers Pvt. Ltd., Ghaziabad from Aug 2014 May 2015 as a Production Engineer
- 'PG Hall Representative' at National Institute of Technology, Durgapur from 2015-16.
- 'Gymkhana member' at National Institute of Technology, Durgapur from 2015-16.
- Worked with a startup 'TATKAL' as an Operations Head.

### Workshop/Seminar/Conference attended

- **1.** Workshop on **'Finite Markov Chain and Fuzzy Models in Management & Education'** in Dept. of Mathematics, National Institute of Technology Durgapur, India during October 3-7, 2016.
- **2.** Workshop on 'Signed Graph & Semi Graph' in Dept. of Mathematics, National Institute of Technology Durgapur, India during October 3-7, 2016.
- **3.** Technical Seminar on **'Hytel Cooling System'** in the Dept. of Mechanical & Automation Engineering at G.B. Pant Govt. Engg. College at Delhi on 14<sup>th</sup> March, 2013.

# **Internship/Training Details**

**Organization**: INDIAN RAILWAYS

**Service Area**: Govt. owned Railways service provider

**Duration** : June – July 2012

**Description** : Studied the functioning of diesel shed where the locomotives are prepared,

repaired & serviced for proper functioning, at the workshop in Tughlakabad,

New Delhi.

**Project**: A project report on ENGINE STUDY was prepared on the basis of my training.

Organization : NATIONAL THERMAL POWER CORPORATION

Service Area : Indian Govt. owned electric utilities company

**Duration**: June–July 2013

**Description** : Studied the functioning of boilers & turbines in production of electricity & the

maintenance procedures in the power plant at Badarpur, New Delhi.

**Project**: A project report on Boiler and Turbine Maintenance Department was

prepared on the basis of my training.

### **Computer Skills**

Languages : C, C++, JAVA, MATLAB, html.

Scientific Software : Ansys, CAD, Catia.

Operating System : Windows, Linux.

#### References

• Yada Nandukumar, Post Doctoral, Centre for Theoretical Studies, Department of Mechanical Engineering, Indian Institute of Technology, Kharagpur, India.

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E-mails : <u>ynandukumar@gmail.com</u>

• Anita Pal, Assistant Professor, Department of Mathematics, National Institute of Technology

Durgapur, India.

Mobile No. : +919434788069

E-mails : anita.pal@maths.nitdgp.ac.in., anita.buie@gmail.com.

### **Personal Information**

Nationality : Indian

Date Of Birth : 05th October 1992

Marital Status : Unmarried

Permanent Address : 167, New Arya Nagar, Ghaziabad, Uttar Pradesh Pin-201001.

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### **Declaration**

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I declare that all the information provided above are true to the best of my knowledge.