VIKRAM SINGH

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EDUCATION

Year	Degree	Institution	Score
2017	*Master of Technology(SPCOM)*	*Indian Institute of Technology, Kanpur*	9.25(CPI)
2015	*Bachelor of Technology(ECE)*	*Kurukshetra University, Kurukshetra*	76.72%
2011	*CBSE-XII*	*S.A.Jain Senior Model School*	72.2%
2009	*CBSE-X*	*Tulsi Public School*	85.20%

TECHNICAL SKILLS

Programming Languages	C, C++, Java, Verilog, VHDL
Other software tools	Matlab, Socket Programming, CVX, Proteus, LaTeX
Development Platforms	Atmel, AVR, Arduino, MIT Application Inventer
Database	rdbms, mysql

ACHIEVEMENTS

- Received **Award for Academic Excellence** in recognition to meritorious performance in academic year (2017-18)(2018)
- Won **Gold & Silver** Medal for Hall-7(IITK) in **Cricket** and **Athletics** respectively for winning **Enthusia-2018**. (2018)
- Ranked among **Top 0.3%**(among 153000) students all over India in Electronics & Comm. Engg. **GATE**. (2016)
- Secured 1st position in **Circuit Simulation** Competition and Science Quiz (**Quizotica**) in college. (2014)
- Secured 2nd position in Electronics Junkyard in college Technical Festival **ACE ACUMEN**. (2014)
- Secured **97%, 98%** in **Computational Techniques** and **Mathematics-III** in under-graduation (2012)
- Secured **83%** in National Mathematics Olympiad(**NMO**). (2010)

INTERNSHIPS & TRAININGS

Netmax Hardware Pvt Limited *June 2013- August-2013*

Designing a very high precision and reliable temperature control system.
- Acquired the skills required in Embedded programming, designing PCB and implementing logic on hardware.
- Testing and troubleshooting the whole system and verify its specifications corresponding to user demands.

CMSR Labs *June 2014- August-2014*

Designing an Android application and its interaction with Arduino and AVR microcontrollers.
- Designed an Android application which can send control signals to a hardware to perform certain operations.
- Devised a hardware which can interact with another system through Bluetooth module and react to it.

Campus Connect Program, Infosys *August 2013- May-2014*

GUI based Chat Application using Socket Programming & Notepad, a text editor in Java.
- Learned various subjects such as Operating Systems, Software Engineering, Data Structures and OOPs Concepts.
- Gain practical knowledge in object oriented programming and database management through labs and projects.

ACADEMIC PROJECTS

Research Experience	**M.Tech Thesis** : "Adaptive Schemes for Spatio-Temporally Correlated MU-MIMO Channel Estimation." **B.Tech Major** : "Designing a Pulse Oximeter for measuring spO2 using Fuzzy Logic." **B.Tech Minor** : "Design and Implementation of Wireless Surveillance Device."
Selected Projects	Internet measurement data management challenges. User Selection in MIMO Interfering Broadcast Channels. Supervised Source Localization Using Diffusion Kernals. Speed control of dc motor using analog pid and pic micro-controller. How to Mobilize MMwave: A Joint Beam and Channel Tracking Approach. Data acquisition system based upon pic micro-controller and serial interface. Manifold-Based Bayesian Inference For Semi-Supervised Source Localization. Channel Estimation for Massive MIMO Using Gaussian-Mixture Bayesian Learning. GUI based Chat Application using Socket Programming & Notepad, a text editor in Java. Comparative Analysis of Detection Filters in the Doctrine of MIMO Communications Systems.

POSITIONS OF RESPONSIBILITY

- **PG Coordinator,EEA**-Coordinated in a team of 20 students and organized departmental events.
- **DPC-SPO(IITK)**   Involved in process of resume verification and contacting companies for placements.
- **Academic Mentor**   Took remedial classes for fresher batch and provided them academic and emotional support.
- **Teaching Assistant**   I assisted professors for Digital Circuits, Microprocessor Programming and EDC Labs.

HOBBIES & INTERESTS

Hobbies	Simulating and Designing Electronic Circuits, Playing Cricket.
Interests	Wireless Communications, Machine Learning and Speech Signal Processing.

RELEVENT COURSEWORK

Representation and Analysis of Random Signals, Introduction to Signal Analysis, Digital Communication Networks, Estimation & Detection Theory, Wireless Communication, MIMO Wireless Communication, Statistical Signal Processing, 5G Wireless Communications[1], Adaptive Signal Processing[1], Convex Optimization, Introduction to Machine Learning, Probabilistic Machine Learning[1], Bayesian Machine Learning[1].

[1] Audited Courses