

# Jishant Singh

• ELECTRICAL ENGINEER •

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## Education

### Indian Institute of Technology

B.TECH IN ELECTRICAL ENGINEERING, C.P.I. 6.81/10

KANPUR, INDIA

July 2014 - PRESENT

### D.A.V. Sr. Secondary Public School

HIGHER SECONDARY EDUCATION, Marks 91.4%

MANSA, INDIA

April 2012 - March 2014

### St. Stephens School

SECONDARY EDUCATION, Marks 96%

CHANDIGARH, INDIA

April 2008 - March 2012

## Scholastic Achievements

- Secured **ALL INDIA RANK 571** in JEE Advanced 2014 among **12 lakh** candidates
- Among top 0.3% students in JEE Mains 2014
- Qualified for round 2 of **KVPY** scholarship exam in SX stream
- Scored a total of **389** marks in BITSAT 2014

## Technical Skills

- Software and Utilities:** AutoCAD, Processing IDE, Adobe Premium Pro, Arduino, MATLAB, GNU Octave, Micro-Cap
- Programming Languages:** C, JAVA, C++, Python, HTML, CSS,  $\text{\LaTeX}$

## Projects

### EMG: Hand Gesture Recognition

INDEPENDENT PROJECT, FUNDED BY DEAN OF RESOURCE AND ALUMNI, IIT KANPUR

[Documentation]

- Used InAmp, Sallen key band pass filters, precision rectifier to create differential signal interpreted using MATLAB
- Processed **electromyographic** signals on **M-bed** processor using MATLAB's neural network toolbox

### Design and Layout of Ripple Carry Adder

PROF. SHAFI QURESHI

[Documentation]

- Designed a **VLSI** layout using **180 nm** technology in Mentor Graphics Design Architect
- Optimised the layout for minimum chip area and performed **DRC Check** and **LVS**
- Performed **PEX analysis** and simulated the circuit with parasitics

### Mechanical Counter

PROF. NEERAJ SINHA

- Designed and built a tap counting device that works by purely mechanical means based on gear ratios
- Dials for the counter were designed on **CNC** and other processes included lathing, drilling and milling

### Wireless Switchboard Control

PROF. BAQUER MAZHARI

[Documentation]

- Used **Arduino Nano** to make an IR and bluetooth communication system to control relays
- Designed and implemented an indigenous logic for coding of IR signals for the transmitter

### Shooting Stars

TAKNEEK, IIT KANPUR

- AtMega 32** based game that operated on a LED matrix
- Implemented functions like collision, reset, scoring and different game modes

## Positions of Responsibility

### Fresher's Coordinator

2015-16

- Planned and organized various events for freshmen including Fresher's Night, DJ Night and the Dams Eve
- Spearheaded a team of four people to manage the expenditure of **INR 75,000**
- Co-ordinated between Cultural Council clubs to ensure smooth conduction

### COORDINATOR, Chess Club

2016-17

- Coordinator of the club for the term 2016-17
- Managed and participated in a **rated chess tournament** in Nagpur
- Captained** IIT Kanpur's chess team in Udghosh for **two consecutive years**

### SECRETARY, Electronics Club

2015-16

- Managed the organization and functioning of the electronics club for the year 2015-16
- Supervised making of various projects like hand gesture controlled robot, LED matrix game

## Extra Curriculars

- Part of the **Chandigarh UT Chess team** for the **Nationals** year 2010-11.
- Listed **FIDE Rated 1305** under All India Chess Federation 2015 onwards
- Participated in **Snackdown'15** organized by Codechef

## Relevant Courses

- Data Structures & Algorithms
- Machine Learning(ACA)
- Probability and Statistics
- Blockchains and Software Security
- VLSI Design - Analog & Digital
- Digital Elec. & Microprocessor Tech.
- Digital Signal Processing
- Digital Switching
- Semiconductor Device Modelling