

# JAY KARAN YADAV

Pre-Final Year Undergraduate  
Department of Civil Engineering  
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## Educational Qualifications

Year	Degree/Certificate	Institute/School	CPI/Percentage
2012-2016	B. Tech, Civil Engineering	Indian Institute of Technology Kanpur	8.0
2011	XII	St. John's School, Jaunpur (ISC)	93.67 %
2009	X	St. John's School, Jaunpur (ICSE)	94.00 %

## Scholastic Achievements

- Secured **All India Rank 5955 in IIT-JEE 2012** among around 0.5 million students.
- Secured **All India Rank 7437 in AIEEE 2012** among around 1.1 million students.
- Awarded **Science Student Award** by State Govt. for **100% score** in **Mathematics** in 12th standard.

## Internships

- Intern Engineer at Varindera Construction Limited, Pithoragarh, Uttarakhand.** (May - July '14)
  - Assisted the technical staff in **supervision of construction work** in the Married Accommodation Project.
  - Prepared **bar bending schedule** of semi-underground water reservoir and **estimate** of 11 km long boundary wall.
  - On-site training** of every activity involved in construction, from foundation to terrace, excavation to finishing.
  - Learned the basics of **billing**, prepared bills of petty contractors and managed the **Quality Lab**.
  - Finally prepared a training manual under the title "**Building Construction : On-site Engineering and Activities**".
- Watershed Management - Anjeni at NGO - Action For Food Production, Field Unit III, Udaipur** (Dec '13)
  - Prepared a **net plan** of the Full Implementation Phase of Anjeni Watershed.
  - Field exposure and Practical Training on **Soil and Water Conservation** Practices.
  - Observed Self Help Groups, Village Watershed Committees from close.
  - Certified as the best intern** of the organization.

## Projects

- Construction and Demolition Waste as sub base material** (UGP, Transportation Lab) (Oct '14 -Present)  
*Mentor : Dr. Syam Nair, Department of Civil Engineering, IIT Kanpur*
  - Individual testing of different CnD waste samples collected from in and around campus and comparing the results.
  - Understanding the cause of reduced strength of recycled aggregate.
  - Major focus on the effect of fines in the overall strength of the base prepared using CnD waste.
- Non Destructive Testing** using **Flatjack** test method on Old Student Activity Center, IIT Kanpur. (March '15 - April '15)  
*Mentor : Dr. Durgesh C Rai, Department of Civil Engineering, IIT Kanpur*
  - Performed calibration of flatjack in Structures lab. Performed double flatjack test on the exterior wall of Old SAC.
  - Analyzed the data, and prepared a comprehensive report. Secured maximum marks in the presentation.
- Industrial Building Designing (Steel Structures)** (July '14 -Nov '14)  
*Mentor : Dr. Durgesh C Rai, Department of Civil Engineering, IIT Kanpur*
  - Analyzed the building using SAP 2000 for given loads viz. dead load, live loads, surge loads and longitudinal loads.
  - Designed top and bottom chord of truss, gantry girder which supports the crane and trolley, gantry column with bracket which supports girder. Got extensively familiar to different IS codes like IS 800, IS 808, SP 6, etc.
- Topographical Mapping** of Academic Area, IIT Kanpur. (July '14 -Nov '14)  
*Mentor : Dr. Onkar Dikshit, Department of Civil Engineering, IIT Kanpur*
  - Control establishment with the help of Total station and Auto Level.
  - Mapping of all the features of Academic Area, IIT Kanpur using GPS, Total station and Auto Level.
  - Using QGIS Software for generating a comprehensive map.
- Ornithopter** (Adjudged as the **Second Best Sectional Project**, TA201 Lab) (Jan '14- April '14)  
*Mentor : Dr. Kantesh Balani, Department of Materials Science and Engineering, IIT Kanpur*
  - Prepared a working mechanical model of da Vinci's Ornithopter design using mild steel sheets, rods, cast iron, etc.
  - It was fabricated using metallurgical processes like welding, brazing, sheet metal forming and casting.

**6. Mechanical Bush/Fence Cutter (TA202 Lab)**

(Aug'13 - Nov '13)

*Mentor : Dr. Shantanu Bhattacharya, Department of Mechanical Engineering, IIT Kanpur*

- Made a mechanical four wheeled vehicle with a blade/cutter whose movement was controlled by gears.
- The cutter had both translational and rotational motions. Appreciated for innovation.

**Technical Skills****Language :** HTML 5, C, Java**Hardware :** Metal Crafting Machines**Software :** AutoCAD, SAP2000, QGIS, Microsoft Office**Platforms :** Windows, Linux**Relevant Courses Undertaken**

Departmental Courses		Other Courses
ESO202A- Mechanics of Solids	CE 211A- Environmental Quality and Pollution	ESC 101A- Fundamentals of Computing
CE242A - Civil Eng. Materials	ESO 204A- Fluid Mechanics	TA 101A- Engineering Graphics
CE272A - Structural Analysis	CE 262A - Eng. Hydraulics	TA201A - Manufacturing Processes - I
CE331A - Geoinformatics	CE361A - Eng. Hydrology	TA 202A- Manufacturing Processes - II
CE351A - Soil Mechanics	CE321A - Eng. Geosciences	ESC 201A - Introduction to Electronics
CE371A - Steel Design	ESO 208A - Computational methods in Eng.	SOC 171A - Introduction to Sociology
CE372A - RCC Design	CE352A - Foundation Engineering	PHI141A - Introduction to Philosophy
CE625A - Masonry Structures	CE382A - Transportation Engineering	

**Positions of Responsibility**

- COORDINATOR, Design and Construction (DesCon) Hobby Group**, SnT Council, (July '14-Present)
  - Responsible for **organizing workshops and lectures** on basics of applications of civil engineering, SAP 2000, bridge and building making using wooden boards, balsa sticks, spaghettis, etc.
  - Conducting **competitions** like Spaghetti Bridge Design, Tremor in Takneek and Techkriti.
- CULTURAL SECRETARY, HALL EXECUTIVE COMMITTEE (HEC), Hall of Residence 3.** (2013-14)
  - Was responsible for **retaining and improving the culture** of Hall. Organized Talent Hunt for first year students, Crescendo, a cultural weekend for Hall residents.
  - Led the Hall in **Inter Hall Competitions** like **Galaxy**, Takneek, Inferno, Green Opus, Spectrum.
  - Worked in a **team** along with other 10 members. Managed various events and activities throughout the year.
- STUDENT GUIDE, Counseling Service, IIT Kanpur.** (2013-14)
  - Mentored 9 freshmen personally to help them acclimatize to the new environment at IIT Kanpur.
  - Advised them on doubts regarding academics, time management, balance between academics and extra-currics.
- ACADEMIC MENTOR, Counseling Service, IIT Kanpur.** (2013-14)
  - Mentored around 30 students on one-to-one basis in the course **TA 101- Engineering Drawing**.
- ASSISTANT COORDINATOR, Events Team, Vivekanand Youth Leadership Convention 2012-13.** (Jan '13)
  - Organized literary and quizzing events for students of our college as well as for students of near-by schools.
  - Organized talks and lectures of various eminent personalities.

**Extra-Curricular Activities**

- **Coordinator** of **TREMOR**, a design and modeling event in **Techkriti 2014.** (March '14)
- **Secretary, Hindi Sahitya Sabha**, Cultural Council. Taught Hindi to foreign and south Indian students. (May - June '13)
- Team Member of **EK SPARSH- Prakriti Ka** (six monthly magazine for school children focusing **environment** protection). Conducted quizzing and debating events. (Jan '13 - Nov '13)
- Team member of **Alumni Contact Program**, IIT Kanpur. (Jan '13 - April '13)
- As a **vocalist and harmonium player**, active member of **Music Club** of Hall 3.
- **SCHOOL CAPTAIN** of St. John's School, Jaunpur. (2010 - 11)

**Achievements**

- Won the overall **General Championship Trophy 2013-14** for the hall for the **first time** in history. (April '14)
- Won **Galaxy Trophy 2013-14** (Inter Hall Cultural Competition) for the **sixth time** in a row. (April '14)
- Won **2nd Prize** in **TREMOR, Techkriti '13** ( Technical Festival of IIT Kanpur). (March '13)
- Won **1st Prize** in **TREMOR, Takneek '12** ( Inter Hall Technical Competition). (Aug '12)
- Won **1st Prize** in Eastern Band and Group Vocals Competition in Galaxy '14. (April '14)
- Won **3rd Prize** in Eastern Band and Group Vocals Competition in Galaxy '13. (March '13)