Naman Agrawal

3rd Year, B. Tech, Civil Engineering
Indian Institute of Technology, Kanpur

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ACADEMIC QUALIFICATIONS

Degree	Institute/Board	CGPA/%	Year of passing
B. Tech (Civil Engineering)	Indian Institute of Technology, Kanpur, India	6.7/10.0	2017- Current
XII: AISSCE	St Joseph's Sr. Sec School, Kota, India	88%	2017
X: CBSE Board	Nalanda Academy, Kota, India	10/10	2015

HONOURS AND SCHOLASTIC ACHIEVEMENTS

- Awarded **Top 10% scorers'** certificate in National Mathematics Talent Contests, AMTI
- Secured **AIR 3450** in JEE Advance 2017
- Secured **International Rank 61** in International Mathematics Olympiad

KEY PROJECTS

3D Mapping using SLAM (*Prof. Salil Goel, IIT Kanpur***)**   *May'19-Ongoing*

- Aiming to create a **3D model** of a landscape with the help of Simultaneous Localization And Mapping Algorithm **(SLAM)**
- Grasped a thorough understanding of how a **LIDAR** works
- **Hardware Integration** of LIDAR with Raspberry Pi 3B+ using Robotics Operating System (**ROS**)

Autonomous Underwater Vehicle (AUV) (*Dr Mangal Kothari, IIT Kanpur***)**   *Jan'18-May'19*

- Bagged **First Runner-Up** in SAVe, national level competition conducted by NIOT.
- Worked on an array of 4 hydrophones to estimate the **degree of angle** of objects using the **MUSIC algorithm**.
- **Spearheaded** the Business Subsystem of the Team consisting of around 30 students
- Converted **Six** companies to sponsor us, which include **Xsens, iDS and ANSYS**.
- Managed the team for presentation in different Exhibitions like IEEE, Porto etc.
- Designed Various Posters, Standees and Team Video for different competitions and Exhibitions using Adobe Photoshop, After effects and Canva

Domestic Shredding Machine (*Mechanical Course Project, IIT Kanpur***)**   *Aug'18-Nov'18*

- Designed a mechanism with a **6 membered team** in which pieces of metal are shredded by two cutting edged rollers
- Used machining techniques like **lathing, milling, drilling** to fabricate the machine with **6 sprockets driven by a single handle**

Roller Coaster *(Engineering Metallurgy Course Project, IIT Kanpur)*   *Jan'19-Apr'19*

- Designed a machine (an **engineering drawing** and **AutoCAD**) with sharp curves and bends with fixed angles
- Used techniques like **welding, brazing, bending** to fabricate it with two parallel rods and a supporting rod with 8 pillars

LEADERSHIPS AND RESPONSIBILITY

Head, Design | TECHKRITI' 20, *Asia's largest annual technical and entrepreneurial festival*   *Apr'19-present*

Leadership	• Led a **4-tier** team of **800+** students for the organization of the festival of the budget over **₹2 crores** • Spearheading a **3-tier** team of **20** graphic designers handling entire branding and creative content • Conducting a **3-phase** competition, TOSC, for 9th-12th class students, witnessing over **7000 participants** • Designed the Complete Frontend of Technocruise Website • **Decided the theme** of Asia's largest technical and entrepreneurial festival & **ensured** its execution
Initiatives	• Hosting a **Design Workshop** for the Team • Ideating and organizing **Theme based Treasure Hunt**, a first in the history of 25 Years of Festival. • Organizing Techkriti Open School Championship to take it to the **national level,** expanding it to 10 states

TECHNICAL SKILLS

Softwares	MATLAB, Ansys, Git, SolidWorks, SAP, AutoCAD Mechanical, MS Office, Adobe Photoshop
Languages and Operating System	C, C++, Python, R, SQL, Latex, ROS, Linux, Raspbian

RELEVANT COURSES

Probability and Statistics	Linear Algebra and Ordinary Differential Equations	Engineering Graphics
Partial Differential Eq.	Computational Methods in Engineering (ongoing)	Introduction to Programming in C

EXTRACURRICULAR ACHIEVEMENTS

- **Bagged 1st prize** in Robotics events: **Wild Soccer** in Takneek'18, inter-hall tech festival
- Participated in **Street Play**, creating awareness regarding LGBTQ+
- Proficient in Swimming, Badminton, Soccer and Table Tennis | NCC Cadet
- Successfully organized campaigns like **Adopt a Tree** and **Annual Winter Donation Drive**