

NAVODIT CHANDRA

Third Year Undergraduate
Indian Institute of Technology Kanpur
Major: Mechanical Engineering

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EDUCATIONAL QUALIFICATIONS

Year	Degree/Certificate	Institute/School	CGPA/%
2017-Present	B.Tech. Mechanical Engineering	Indian Institute of Technology, Kanpur	9.0/10
2017	Class XII, Indian School Certificate (ISC)	City Montessori School, Lucknow	97.25%
2015	Class X, Indian Certificate School Education (ICSE)	La Martiniere College, Lucknow	97.80%

SCHOLASTIC ACHIEVEMENTS

- Ranked in top 0.15% out of 1,200,000 candidates in JEE(MAINS) 2017
- Ranked in top 3.5% out of 150,000 candidates in JEE(ADVANCED) 2017
- Awarded the Students-Undergraduate Research and Graduate Excellence (SURGE) fellowship at IITK
- Presented a research paper at the 25th National and 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference, 2019 held at IIT Roorkee, India.
- Selected for the National Talent Search Examination (NTSE) Fellowship award (Class X) conducted by the National Council of Educational Research and Training (NCERT), New Delhi.
- Selected for the Kishore Vaigyanik Protasahan Yojana (KVPY) Fellowship Program under the SA-stream (Class XI) implemented by Indian Institute of Science (IISc), Bangalore.
- Qualified the NSEP (National Standard Examination in Physics) - 2016 conducted by the IAPT (Indian Association of Physics Teachers) being among the state-wise top 1% candidates
- Qualified the NSEC (National Standard Examination in Chemistry) - 2016 being among the nation-wise top 1% candidates

KEY PROJECTS UNDERTAKEN

STUDY OF WATER MANAGEMENT IN PEM FUEL CELL GAS CHANNELS USING LATTICE BOLTZMANN METHOD

Mentor: Dr. Malay Das, Department of Mechanical Engineering, IIT Kanpur

May'19-July'19

- Carried out 3D simulations of liquid water transport in flow channels using multicomponent multiphase lattice Boltzmann method,
- Studied the effect of variation of gas inlet velocity, operating current, surface wettability and capillary number on the changes in the water removal rate and energy lost in the flow channels.

Submitted a research paper in the proceedings of 3rd International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTTC-2019)

ENGINEERING DESIGN AND GRAPHICS-PENDULUM CLOCK

July'18-Nov'18

Mentor: Dr. Anupam Saxena, Department of Mechanical Engineering, IIT Kanpur (Course Project)

- Prepared the part-drawings and the sub-assemblies of the gear train involved in the working of the clock
- Prepared the assembly drawing of the clock in accordance with engineering norms

MANUFACTURING PROCESSES-MILITARY TANK

July'18-Nov'18

Mentor: Dr. Sudhanshu Shekhar Singh, Department of Material Sciences and Engineering, IIT Kanpur (Course Project)

- Worked in a team of six people and came up with the model of an army tank
- Designed and fabricated a downsized model of a main battle tank equipped with anti-mine rollers using the processes of welding, brazing, casting and sheet-metal operations

MANUFACTURING PROCESSES-STEERING AND DIFFERENTIAL MECHANISMS

Jan'19-Apr'19

Mentor: Dr. Shantanu Bhattacharya, Department of Mechanical Engineering, IIT Kanpur (Course Project)

- Incorporated the four bar linkage mechanism on the front part of the chassis and differential mechanism on the rear part with manual transmission of power
- Gained hands on experience in the processes of turning, milling, drilling and CNC

RELEVANT COURSEWORK

Multivariable Calculus	Mechanics	Electrodynamics
Fundamentals of Programming	Partial Differential Equations	Complex Analysis
Engineering Design and Graphics	Dynamics	Mechanics of Solids
Fluid Mechanics	Thermodynamics	Nature and Properties of Materials
Introduction to Electronics	Introduction to Electrical Engineering	Energy Systems
Theory of Mechanisms and Machines	Advanced Mechanics of Solids	Manufacturing Science Technology
Robot Motion Planning	Vibration and Control	Design of Machine Elements
Heat and Mass Transfer	Robot Manipulators: Dynamics and Control	Finite Element Methods for Engineering Mechanics

*Spring'20(ongoing)

RELEVANT SKILLS

Software: Autocad, Autodesk Inventor, C/C++, Python, Java, MS Office, Matlab

Languages: C/C++, Java, Python, L^AT_EX.

MISCELLANEOUS

- State level badminton player during school time and won zonal level matches
- Participated in Sci-tech summer camp organised at IIT Kanpur and was awarded a certificate of appreciation by Robotics Club for being a member of the project 'Sketching Buddy'
- Participated in regional mental arithmetic competitions and was declared runner up and champion during the two years of training
- Trained and disciplined in National Cadet Corps (NCC), IIT Kanpur for a year

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