



Amit Kumar

Roll No.: 224103303

M.Tech - Fluid and Thermal Engineering

Mechanical Engineering

Indian Institute of Technology Guwahati

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EDUCATION

| Degree/Certificate | Institute/Board | CGPA/Percentage | Year |
|-------------------------|--|-----------------|--------------|
| M.Tech. | Indian Institute of Technology, Guwahati | 7.33 (Current) | 2022-Present |
| B.Tech. | National Institute of Technology, Patna | 7.83 | 2014-2018 |
| Senior Secondary (12th) | State Board (BSEB) | 77.80% | 2013 |
| Secondary (10th) | State Board (BSEB) | 71% | 2011 |

EXPERIENCE

- Teaching Assistant duty for the subject of Mechanical CNC Workshop** *Aug 2023 - Present*
TA Faculty - Prof. Sukhomay Pal (Dept of Mechanical Engineering) IIT Guwahati, Assam
– Evaluating student's assignments and clearing doubts.
- Teaching Assistant duty for the subject of Engineering Mechanics** *March 2023 - July 2023*
TA Faculty - Prof. Santosha Kumar Dwivedy (Dept of Mechanical Engineering) IIT Guwahati, Assam
– Evaluating student's assignments and clearing doubts.
- Havells India Ltd.** *18th June 2018 - 09th Aug. 2019*
Engineer, Process Quality and Design Neemrana, Rajasthan
– I was involved in activities like Quality improvement, Customer Enquiry, Quality Circle, Design and Development.
– Cost of poor quality (COPQ), Process rejection reduced from 7 percent to 5 percent in Pump assembly line.
– Implemented real time quality data monitoring and data storage analysis in Pump machine shop.
– Implemented Poka-Yoke for all multi spindle nut runner in assembly line.
– Successfully guided and lead Quality Circle team in Motor plant, Neemrana, Rajasthan.
- Autonext** *23rd May 2016 - 05th June 2016*
Student Intern Jamshedpur, Jharkhand
– Internship on Automobile Basics and Advanced System.

PROJECTS

- Study of Micro-channel Heat Sink for uniform cooling of miniature systems** *MTP ongoing*
Mentor - Prof. Manmohan Pandey (Department of Mechanical Engineering) iitg.ac.in
– Numerical Investigation of Effect of Porous Microfins in Thermal and Fluid Flow Behavior in Miniature Channels.
– Thermal and Hydraulic analysis of Micro-channel heat sink with porous structure and Jet impingement.
– Design and Simulation of different structure using Ansys software.
- Design and Development of Semi-Automated Tilkut (sweet) Making Machine** *BTP, Jan - May 2018*
Mentor - Dr. Anand Bhushan (Associate professor at NITP) nitp.ac.in
– Sponsored by Design Innovation Centre, NIT Patna.
– A prototype of the machine was made, and after that, fabrication was done.
– Design of Tilkut making machine was done using CAD software Solid Works.

TECHNICAL SKILLS

- CAD Tools:** AutoCAD, Solidworks
- Software:** Ansys Fluent, Geogebra
- Programming:** C/C++*, Python*
- Operating Systems:** Windows, Linux*
- Miscellaneous:** MS Word, MS Power Point, MS Excel, MS Visio, Tecplot **Elementary Proficiency*

KEY COURSES TAKEN

- Advanced Thermodynamics
- Fluid Mechanics
- Advanced Engineering Mathematics
- Two Phase Flow and Heat Transfer
- Computational Fluid Dynamics
- Engineering Computing Lab
- Conduction and Radiation
- Aircraft Propulsion

POSITION OF RESPONSIBILITY

- **Mentor:** Guided and lead Quality Circle team at Havells India Ltd. in 2019.
- **Senior Member:** Intramural'16, Sports fest of NIT Patna.

ACHIEVEMENTS

- **GATE 2022**, Secured All India Rank 257 in the National level Examination. *2022*
- **Inter NIT Volleyball**, Participated in INTER NIT tournament held in year 2017 at NITK SURATHKAL. *2017*
- **Gold Medal**, Winner of Volleyball tournament at BIT PATNA. *2016*
- **Gold Medal**, Won gold medal in Volleyball, Inramual'16' sports fest of NIT Patna. *2016*
- **Bronze Medal**, Won bronze medal in Football, Itramural'16' sports fest of NIT Patna. *2016*

EXTRACURRICULAR ACTIVITIES

- **Participant**, Webinar on How to Design a Battery for EVs' using Solidwork, Ansys, MATLAB. *2023*
 - **Certificates and Courses**, Completed a Udemy course on Ansys Tutorial. *2023*
 - **Vocational Training**, Completed four Weeks vocational training at NTPC Kahalgaon, Bihar. *June 2017*
 - **Sports**, Participated in Volleyball Inter NIT tournament and Prakida'16 a sports fest of BIT Patna. *2016-17*
 - **Participant**, Participated in Workshop of Vehicle Overhauling of Automobile, NIT Patna. *2016*
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