RAUSHAN KUMAR

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M.Tech-Manufacturing Science and Engineering
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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech.	Indian Institute of Technology, Guwahati	7.07 (Current)	2023-Present
B.Tech.	Bhagalpur College of Engineering , Bhagalpur	7.87	2015-2019
Senior Secondary	BSEB Board	62.2%	2014
Secondary	BSEB Board	74.6%	2012

Experience

- **Indian Institute of Technology** *July 2024 - Nov 2024*
  Teaching Assistant (TA), Course ME 110 Guwahati
  – Assisted students in workshop, providing technique and safety advice
- **S & A Technology** *Aug 2019 - Jul. 2023*
  Assistant Teacher Patna
  – Provided individual and group tutoring to support students in areas of difficulty
- **National Thermal Power Corporation (NTPC) Kahalgaon** *1st Jun 2018 - 30th Jun 2018*
  Industrial Training Kahalgaon
  – Basics of thermal power plants, including understanding different types of boilers, turbines, and generators.
  – Hands-on training with plant machinery and equipment
- **TATA Motors** *1st Jul 2018 - 15th Jul 2018*
  Vocational Training Bhagalpur
  – Introduction to automotive components, systems, and the manufacturing process

Projects

- **Electropolishing of Additive Manufactured Biomedical Implant** *Ongoing*
  MTP Under Prof. Manas Das, Dept. of Mechanical Engineering
  – Multiphysics numerical simulation of EP process to optimize the process parameter
  – Achieve a smooth, high-quality surface with enhanced properties through Plasma Electropolishing
- **Effective Methods for Clearing Bone Residue from Bone Drill Bits** *Jan 2024 - May 2024*
  Under Prof. S. Kanagaraj, Dept. of Mechanical Engineering
  – Designed and developed a bone drill bit set using AM techniques, resulting in improved efficiency and effectiveness in removing bone residue
- **Tensile and Flexural Behavior of Bi-directional Natural Fiber Composite by VARTM** *Jan 2024- May 2024*
  Under Prof. Ujendra Kumar Komal
  – Project focused on investigating the mechanical properties of bi-directional natural fiber composites.
  – Analyzing the influence of fiber orientation and matrix type on the performance of natural fiber composites
- **Production of Electricity from Speed Breaker** *Jan. 2019 - May 2019*
  BTP under Prof. Raushan Kumar
  – Convert mechanical energy from vehicles passing over speed breakers into electrical energy

Technical Skills

- **Design/ Analysis Software:**: SolidWorks, COMSOL Multiphysics, AutoCAD
- **Programming**: MATLAB, CNC, Python*
- **Miscellaneous** : MS Word, MS Excel, MS PowerPoint, Ultimaker Cura, PowerMill ** Elementary proficiency*

Key Courses Taken

- **Mathematics**: Linear Algebra, Basic Calculus, Discrete Maths, Probability & Random Processes
- **Manufacturing**: Welding and Additive Manufacturing, Engineering Materials and Characterization, Manufacturing of Polymers and Polymer Composites, Biomedical Devices and Systems

Achievements and Extra Curricular Activities

- **GATE**, Qualified with 92.63 percentile in Mechanical Engineering *2022*
- **Mentor**, Saathi Counseling Club, IIT Guwahati *2024*
- **GOLD Medal**, District Level Taekwondo Championship, Nalanda *2010*
- **NTSE** , National Talent Search Examination *2009*