NIKET KUMAR

B.TECH Mechanical Engineering,

IIT Roorkee, India

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EDUCATION

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| **YEAR** | **DEGREE/EXAMINATION** | **INSTITUTION** | **CGPA/ PERCENTAGE** |
| 2020 | B. Tech (Mechanical Engg) | Indian Institute of Technology, Roorkee | 7.27 |
| 2016 | Twelfth | KV AFS Wadsar (CBSE) | 87.2% |
| 2014 | Tenth | KV AFS Wadsar (CBSE) | 9.8 |

SKILLS

**Computer Language** C++

**Software Package** MATLAB, Arduino IDE, Solidworks, ANSYS, Cura

**Language known** English, Hindi

WORK EXPERIENCE

**Assistant Manager | *R&D, Maruti Suzuki Ind. Ltd. (MSIL)***

*(16th July 2020 – 12th Aug 2022)*

* Responsible for design & Development of brake actuation parts (Brake pipe, Brake vacuum hose, Brake flexible hose & Brake booster)
* Dealing with supplier & other depts. for work related to development, testing, etc.
* Worked on assembly line problems, VAVE & localization.

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**Energy efficient intelligent cooling tower| *Tata Steel***

*(20th May 2019 – 12th July 2019)*

* Developed Non-linear control system for efficient working of cooling tower.
* The dynamic state equation of Cooling Tower was derived from the distillation column analogy.
* The model was developed in MATLAB & Simulink.

MAJOR PROJECTS

**Design & Development of Brakes actuation parts for A-segment passenger vehicle| *MSIL***

*(1st Feb 2021 – 12th Aug 2022)*

* Developed Brake actuation parts for A-segment passenger vehicles like S-presso, Alto, Ignis, etc.
* Worked on designing & layouting of Brake vacuum hose & Brake pipe.
* Resolved issued report by assembly line & market quality.

**Optimization of shock mitigation capability of a shielding structure against blast| *IIT Roorkee*** *(14th Aug 2019 – 30th April 2020)*

* Designed an energy absorbing sandwich structure having reinforced Al foam as core covered with steel plates.
* Simulated & studied the response of sandwich structures under TNT blast to identify the main parameters affecting the blast mitigation.
* Obtained a dataset by performing numerous simulation with different sets of condition to establish a relationship between the parameters & blast mitigation.
* Used multi-objective optimization technique to obtain the optimal values of the parameters for efficient & light weight energy absorbing structure.

**Human Powered Vehicle | *IIT Roorkee***

*(Aug 2017 – Feb 2020)*

* An HPV was made to compete with other teams on the basis of speed, endurance, safety and innovation in design, at ASME E-Fest Asia-Pacific.
* Designed the vehicle considering ergonomics, comfort, and safety of the rider in SolidWorks.
* The frame structure was analysed using the FEM in ANSYS for different load case.

POSITION OF RESPONSIBILITY/ACHIEVEMENTS

**Joint Secretary- ASME IIT Roorkee chapter** *(2018-19)*

* Leading a team of students from various engineering disciplines, passionate for different applications in field of mechanical & electronics.
* Organized workshops and a series of lecture to promote technical competency into students of IITR.
* Represented ASME IITR in various national competitions.

**Team Captain- Human Powered vehicle challenge** *(2018-19)*

* Manages a team of 8 members working to develop an HPV for HPVC, ASME E-fest’19 Asia Pacific.
* Worked on project for 3 years, iterates different design prototypes to improve vehicle’s efficiency, and significantly improved rank in the competition from previous year.
* Ranked 1st in Design event, and 4th overall in HPVC, ASME E-fest ’20.