

# Ravi Prakash

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## SKILLS

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<b>Software</b>	Solidworks, Ansys(with Fluent), LabView (Signal Express), COMSOL Multiphysics, CREO, Matlab, AutoCAD, MS-Office, Android Studio
<b>Computer Language</b>	Java, C++, C, MySQL (Database), HTML 4.0
<b>Courses undertaken</b>	Finite Element Methods, Heat and Mass Transfer, Machining Science, Mechanical Measurements, Design of Machine Elements, Dynamics of Machinery, Turbomachines, Numerical and statistical methods, Fluid mechanics and hydraulic machines, Management Science, Advanced Materials
<b>Language</b>	Hindi (Native)

## EDUCATION

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### National Institute of Technology Warangal (NIT Warangal) | Telangana, India

*Bachelor of Technology in Mechanical Engineering* **CGPA: 8.06/10** May 2019

### St. Michael's High School | Patna, Bihar

*High School, CBSE Board* **Percentage: 97%** March 2015

## EXPERIENCE

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### “Active cooling method for Concentrated Photovoltaic cells using modified heat sink”

Under Dr.Karthik Balasubramanian (Thermal section, National Institute of Technology Warangal)  
December 2017- Present

- Concerned with design and analysis of heat sink with water as the working fluid
- Building the flow loop setup and collecting experimental data
- Evaluating ways for cogeneration for increasing the efficiency
- Software: Ansys(Fluent), Solidworks, MS-Excel, LabView(Signal Express)

### “Experimental study of Flow Boiling techniques on Hybrid microchannel – microgap heat sink”

Under Prof.Poh Seng Lee (Micro Thermal Systems group , National University of Singapore)  
May 2017-July 2017

- Used numerical methods and simulations to address the heat spreading problem for non-uniform geometry
- Performed the experiments and tested degassing unit using vacuum pump
- Designed novel geometries delaying CHF and increasing HTC
- Found methods to increase the heat mitigation rate by changing the flow configuration
- *Software*: COMSOL Multiphysics, Ansys(Fluent), LabView(Signal Express), Solidworks, MS- Excel,Origin

### “Investigation and Development of novel method to increase Automotive Efficiency”

Under Dr.Hatim Zaghoul (Founder, former CEO Wi-Lan) October 2016–December 2016

- Student lead
- Explored the possibility of a method to increase efficiency by redesigning the vehicle transmission system.
- Studied weight reduction and magnetic field strength enhancement

### “Design and implementation of underwater depth measurement sensor suite for a UUV”

Under Dr.Atul Thakur (Mechatronics, Instrumentation and Control Laboratory , IIT Patna)  
May 2016-June 2016

- Used IMU for controlling stability of the system and tested various sensors for depth measurement
- Made a Processing simulation mimicking IMU movement
- Software: Arduino, Processing, MS- Office Suite

## PROJECTS

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### “Handheld mechanical cotton picking device”, EPICS (Engineering Projects In Community Service)

Under Prof.P.Bangaru Babu (Head, Mechanical Engineering, National Institute of Technology Warangal)  
January 2018-Present

- A four credit (non-academic) NITW-Purdue University program
- Ideating, designing and manufacturing of the device

## **“Team Thunderbolt 4.0- Efficycle 2016 organized by SAE India”**

March 2016-October 2016

- Worked in Powertrain department with special Inputs on mechanical innovation
- Bagged All India Rank 6<sup>th</sup>

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## **LEADERSHIP**

### **Organizer, TEDxNITW**

February, 2017-Present

- Started the first TEDx club at NIT Warangal and lead a team of 40 members
- Ideated “Cup of Curiosity”, an informal interaction session with faculties over cups of coffee

### **Assistant Manager (Resources, Facilities and Procurements), Innovation Garage**

March, 2016- Present

- Administered the buying of equipment and tools for the makerspace(Innovation Garage)
- Conduct Makeathons and Hackathons which has till now catered to over 1000 students
- Organized freshmen orientation for 800 undergraduate students

### **Joint Secretary, Mechanical Engineering Association, NIT Warangal**

July 2017-Present

- Assisting in procurement of 3-D printers and workshop machine tools
- Facilitated in raising awareness about possible career paths for Mechanical Engineers

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## **ACHIEVEMENTS**

- Government of India’s Scholarship for Undergraduates(2015)
- 2<sup>nd</sup> position in Hardware category of Makeathon 6.0 by IG (*State of charge of Li-ion battery*)
- Top 0.1 percentile score in Physics and Information Practices in High School exam, special recognition by Ministry of Human Resource and Development, Government of India
- Secured 3<sup>rd</sup> highest marks in the State of Bihar (High School exam, CBSE Board, 97.0%)
- Secured 1st rank in the State of Bihar (Secondary School, CISCE Board, 97.2%)
- Lead the school nature club (Green Brigade) to special recognition from the Government of Bihar for the efforts of converting illegal dumping sites into parking lots

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## **INTERESTS**

Poetry, Short Stories, Karate (Kyokushin), Interacting with people