

# ►V. Pavan Kumar

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## Objectives

To choose a career path where I can excel, enhance my knowledge and experience towards chemical engineering through continuous learning and efficient working in an esteemed organization.

## Education

Degree/Certificate	Year of passing	Institute/School	University/Board	CGPA / %
B.Tech Chemical Engineering	2021	NIT Srinagar	NIT Srinagar	7.00 (CGPA)
H.S.C	2017	Kendriya Vidyalaya Guntur	CBSE	77.6%
S.S.C	2015	Kendriya Vidyalaya Guntur	CBSE	8.00 (CGPA)

## Internships

### 1) CSIR-IICT Hyderabad (23<sup>rd</sup> December 2019 – 20<sup>th</sup> February 2020)

“Emulsion polymerization of vinyl acetate in micro-reactors and CFD analysis of pulse sieve plate column reactor”

- Researched various subjects that were related to project
- Planned, modified, executed research techniques, procedures and tests.
- Drafted new and updated designs using Comsol Multiphysics Software for CFD simulations.
- Supported research and development efforts to create new processes.

### 2) IIT Mandi (20<sup>th</sup> September 2019 – 20<sup>th</sup> October 2019)

“Electrolysis and waste water analysis”

- Done literature survey and presented information to appropriate authorities.
- Designed, prototyped and tested electrolysis systems.
- Gathered and arranged data to create representative graphs for presentations.

## Projects

### 1) “Synthesis of ibuprofen in a batch reactor using Comsol Multiphysics”

- 1-(4-isobutylphenyl)ethanol is converted in to ibuprofen (isobutylphenylpropionic acid) using  $L_2PdCl_2$  (bis triphenylphosphine palladium dichloride) catalyst in the presence of HCL acid.

### 2) “Mixing enhancement in micro-channels using Comsol Multiphysics”

- Done literature survey about mixing in various micro-channels.
- N-24-il aerofoil shaped obstruction is used to increase the mixing efficiency through generation of vorticity, split and recombination of the fluid.

<b>Conferences</b>	<ul style="list-style-type: none"> <li>▶ Presented a paper entitled “<b>Enhancements in micro mixing amidst junction variation coupled with induced cavities for immiscible fluids</b>” in <i>CHEMCON-2020</i> using <i>Comsol Multiphysics</i>.</li> <li>▶ Presented a paper entitled “<b>A Pilot Plant Study for Conversion of Cellulose to Hexane</b>” in <i>ESTEEM-2021</i> using <i>Aspen Plus</i>.</li> </ul>
<b>Software's</b>	<ul style="list-style-type: none"> <li>▶ Comsol Multiphysics</li> <li>▶ Microsoft Office</li> <li>▶ Python (Jupyter notebook)</li> <li>▶ Aspen Plus</li> <li>▶ Matlab</li> </ul>
<b>Skills</b>	<p style="text-align: center;"><u>Professional</u></p> <ul style="list-style-type: none"> <li>▶ Modeling</li> <li>▶ Presentation</li> <li>▶ Simulation</li> <li>▶ Chemical analysis</li> </ul> <p style="text-align: center;"><u>Personal</u></p> <ul style="list-style-type: none"> <li>▶ Communication</li> <li>▶ Adaptability</li> <li>▶ Social Understanding</li> <li>▶ Multitasking abilities</li> <li>▶ Quick learning</li> <li>▶ Curiosity</li> </ul>
<b>Accomplishments &amp; Awards</b>	<ul style="list-style-type: none"> <li>▶ School literary and house captain.</li> <li>▶ Participated in National Children's Science Congress and Social Science Congress regional level competitions.</li> <li>▶ Participated and won in some poetry competitions conducted by various organizations. Participated in Chess and Skating in various school, regional, college level competitions.</li> </ul>
<b>Sort Term Course</b>	<ul style="list-style-type: none"> <li>▶ One week online short term on <i>Energy and its applications</i> organized by department of chemical engineering, National Institute of Technology Srinagar.</li> </ul>
<b>Languages</b>	<ul style="list-style-type: none"> <li>▶ English</li> <li>▶ Telugu</li> <li>▶ Hindi</li> </ul>
<b>Hobbies</b>	<ul style="list-style-type: none"> <li>▶ Chess</li> <li>▶ Walking</li> <li>▶ Trekking</li> <li>▶ Cycling</li> </ul>

Declaration: *I hereby declare that the information provided by me is true my belief and knowledge.*

01-07-2021

**Vangara Pavan Kumar**