

Sugun Tej Inampudi

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EDUCATION

- **University of Illinois at Urbana-Champaign** **Champaign, USA**
Master of Science in Mechanical Engineering; GPA: 4.0/4.0 *Dec 2020*
 - **Coursework:** Computer Control of Mech Systems, Thermal Systems, Numerical Thermo-Fluid Mechs, Refrigeration and Cryogenics, Intermediate Heat Transfer
- **Birla Institute of Technology and Science Pilani** **Pilani, India**
Bachelor of Engineering (Hons.) in Mechanical Engineering; GPA: 9.70/10.0 *Jul 2018*

RESEARCH EXPERIENCE

- **Comparison of Capacity Modulation Strategies with Focus on Efficiency** **Nov 2018 – Present**
Advisor: Prof. Stefan Elbel, UIUC *Supported by ACRC Project 424*
 - A comprehensive system study will be conducted comparing different compressor capacity modulation techniques
 - Different capacity modulation approaches will be tried in the same system for a fair comparison of the test results
 - The focus of this experimental investigation will also include parameters such as heat exchanger sizing, superheat/subcooling control
 - A reliable, model supported set of results will be presented which will aid in designing and selecting the capacity modulation equipment
- **Entropy generation in water based natural circulation loop** **Jan 2017 – May 2017**
Research Project guided by Prof. Satyabrata Sahoo, BITS Pilani
 - Modeled "Natural Circulation Loop" using ANSYS Fluent and performed steady state simulations for different boundary conditions
 - Studied the variation of Entropy Generation, Second Law Efficiency and Heat transfer for various loop parameters
 - Successfully determined optimum loop parameters based on ratio of Heat Transfer to Irreversibility in the system

RELEVANT EXPERIENCE

- **Ecozen Solutions Private Ltd** **Pune, India**
Thermal Test Engineer (Intern) *Jan 2018 – Jun 2018*
 - Involved in the design and testing of various components of Ecofrost, a micro-cold storage
 - Conducted experiments to determine the air flow rate required to achieve the required precooling
 - Experimentally determined the feasibility of HDPE (High-density polyethylene) as a container material for Thermal Energy Storage

TEACHING EXPERIENCE

- **Graduate Teaching Assistant – University of Illinois at Urbana-Champaign** **Aug 2018 – Present**
Course: Introduction to Statics/Statics (Fall 2018), Heat Transfer (Spring 2019), Calculus II (Fall 2019)

PUBLICATIONS

- **Sugun T. I., Baji M., Satyabrata S., "Entropy generation in water based Natural Circulation Loop", Journal of Heat Transfer, May 2018**

TECHNICAL SKILLS

- **Computer Skills:** EES, ANSYS Fluent (Beginner), MATLAB (Beginner), AutoCAD, Solidworks
- **Programming Skills:** C Language

HONORS AND AWARDS

- Awarded MCN Scholarship of highest grade by Birla Institute of Technology and Science Pilani for academic excellence for eight consecutive semesters, 2014 – 2017
- Ranked second in the Mechanical Engineering undergraduate class of 2018