## MEGHAVIN BHATASANA

### PURDUE GRADUATE STUDENT

Major: Mechanical Engineering, Ph.D.

Home Country: India

### Why did you choose Purdue?

I wanted to pursue a PhD in heat transfer and work in industry after graduation, and Purdue fit the bill really well. The school conducts highly cited and impactful work in applied heat transfer and often has projects funded directly by semiconductor industries. It is also home to the Birck Nanotechnology Center which housed the largest academic cleanroom at the time of its completion. This, along with having a great potential advisor made me confident that Purdue was the right choice for me. In fact, it was the only school I applied to!

### Please briefly describe your research:

My research is focused on the thermal management of electronic systems. With rapid advances, heat fluxes in complex systems can get even higher than those in the sun. My project explores the concept of integrating phase change materials (PCM) within the silicon die. Doing so enables effective hotspot mitigation without an increase in package dimensions. Essentially, this can keep your phones from getting hot while keeping it thin. We use machine learning to optimize the geometry and will experimentally demonstrate the concept with a fabricated PCM-integrated chip.



### How do you keep yourself organized?

I typically assign days of the week for different tasks, predominantly being academic coursework and research, and stick to strictly. I treat being a graduate student as a full-time employee and often do most of my work in the morning and afternoon and leave the evening for cooking and hobbies. With regards to research, my advisor helps me understand the project needs and ensures that I stay on track.

### How do you de-stress in your free time?

I like to exercise, and Purdue has a great recreational facility to do so. I used to participate actively in intramurals but now have started to explore rock climbing at the CoRec.

# What are you hoping to do after your life at Purdue?

I am hoping to pursue a career as a research engineer at a semiconductor/automotive firm after graduating.



## **EXPLORE YOUR OPTIONS**

#### **PURDUE GRADUATE PROGRAMS**

#### COLLEGE OF AGRICULTURE

Agricultural and Biological Engineering Agricultural Economics Agricultural Sciences Education and

Communication

Agronomy

**Animal Sciences** 

**Biochemistry** 

Botany and Plant Pathology

Entomology

Food Science Forestry and Natural Resources

Horticulture

#### COLLEGE OF EDUCATION

Curriculum and Instruction Educational Studies

#### COLLEGE OF ENGINEERING

Aeronautics and Astronautics Biomedical Engineering Chemical Engineering Civil Engineering

**Electrical and Computer Engineering** 

Engineering Education
Engineering Management

**Environmental and Ecoloigcal** 

Engineering

Industrial Engineering Interdisciplinary Engineering Materials Engineering

Mechanical Engineering

**Nuclear Engineering** 

### INTERDISCIPLINARY PROGRAMS

Defense Engineering and Technology Biomedical Sciences Ecological Sciences and Engineering Information Security Life Science

## COLLEGE OF HEALTH AND HUMAN SCIENCES

Consumer Science Health and Kinesiology Health Sciences

Hospitality and Tourism Management Human Development and Family Studies

Nursing Nutrition

Psychological Sciences

Public Health

Speech, Language, and Hearing Sciences

#### COLLEGE OF LIBERAL ARTS

American Studies Anthropology

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Communication

Comparative Literature

Design English

Theatre

History Languages and Cultures

Linguistics Philosophy Political Sciences Sociology

## KRANNERT SCHOOL OF MANAGEMENT

Business Analytics and Information Management Economics Finance Global Supply Chain Management Management Marketing

Organizational Behavior and Human

#### COLLEGE OF PHARMACY

Industrial and Physical Pharmacy Medicinal Chemistry and Molecular Pharmacology Pharmacy Practice

Resource Management

## PURDUE POLYTECHNIC INSTITUTE

Aviation Technology and Management Computer and Information Technology Computer Graphics Technology Construction Management Technology Engineering Technology Technology Technology, Leadership, and Innovation

#### COLLEGE OF SCIENCE

Biological Sciences
Chemistry
Computer Science
Earth, Atmospheric, and
Planetary Sciences
Mathematics
Physics
Statistics

## COLLEGE OF VETERINARY MEDICINE

Basic Medical Sciences Comparative Pathobiology Veterinary Clinical Sciences

Find more information at purdue.edu/ gradschool/academics/ graduate-degree-programs



Purdue is centrally located in West Lafayette, Indiana - approximately two hours south of Chicago, Illinois and one hour north of Indianapolis, IN.









