## **EMPOWER: Research and Extension Experiences for Undergraduates**

Location: Purdue University Northwest, Hammond, IN



**Eligibility:** All undergraduate students interested in water, energy and environmental systems for sustainable agriculture and rural development (*minorities and underrepresented students are encouraged to apply*)

### **Topics:**

- Food-Energy-Water-Land Nexus for Sustainable Agriculture
- Renewable Energy Integration in Agriculture and Rural Communities
- Process Simulation and Visualization of Water and Energy Integration
- Al-enabled Biomass Feedstock Characterization and Quality Control
- Al-enabled Mobile Augmented Reality Innovation for Coastal Marine Debris Investigation
- Life Cycle Analysis and Environmental Impact Assessment for Remanufacturing Decisions
- Innovative Nutrient-Energy-Water Technologies for Circular Bioeconomy in Agriculture

#### **Activities:**

- Hands-on Research Experiences
- Extension and Community Engagement
- Professional Development Workshops
- Symposia and Presentations
- · Field Trips and Fun-Filled Weekends

"The REEU program was a great opportunity for me. I was able to gain more experience modeling real world engineering problems while building skills with simulation tools such as Ansys Workbench and Fluent. I would recommend the REEU research program to any student looking to build skills in engineering analysis or to build up relevant experience on their resume."

.... Cameron Dunlap



# **Important Dates**

Application Deadline: March 15, 2024

By email: VGude@Purdue.edu Ph: 219-989-2636

Notification of Selection: March 31, 2024

REEU Program
June 2 – August 2,
2024



Reward: \$3,100 (Stipend)
Housing and Food Expenses Covered

**Application Materials:** (i) Resume, (ii) Letter of Interest including a 0.5-page Research Summary, (iii) Transcript, and (iv) One Reference Letter (send to **VGude@Purdue.edu**)

#### **Project Team**

Dr. Veera Gnaneswar Gude (VGude@Purdue.edu)
Dr. Xiuling Wang (WangX@pnw.edu)
Dr. Chenn Zhou (Czhou@pnw.edu)
Dr. Mohammad Marufuzzaman (Maruf@ise.msstate.edu)
Dr. Junfeng Ma (Ma@ise.msstate.edu)

