



# Research Experiences for High School Teachers in Machine Learning and Smart System Design

**Texas A&M University, College Station, TX**

**June 12-July 21, 2023**

<http://people.tamu.edu/~hsieh/ret/>

Texas A&M University will be hosting a National Science Foundation (NSF) Research Experiences for Teachers (RET) site from June 12 to July 21, 2023. This site will provide opportunities for high school teachers involved in Career and Technical Education (CTE) to engage in research and curriculum development related to machine learning and smart system design. Activities will include a 6-week summer program at Texas A&M University and continuing collaboration throughout the following academic year. During the summer, participants will:

- engage in a research project with a faculty mentors;
- attend special topic presentations and site tours; and
- develop an instructional module to teach a topic related to their research.

During the following academic year, participants will:

- implement their instructional modules in the classroom and assess learning outcomes;
- attend a 1-day workshop to present results, share materials, and evaluate the program.

## Stipend

Each participant will receive a stipend of \$1000/week for participation in the six-week summer program and \$1500 upon completion of the implementation and evaluation activities during the following academic year. Lodging, meal and travel expenses are **not** included. The program can assist participants in finding dormitory-style housing arrangements if requested on the application.

In addition, two Master Teachers will be selected. The Master Teacher will complete the same activities as the other participants and will also have a leadership role in the curriculum development process. Master Teachers will receive an additional stipend of \$250/week for the six-week summer program. All other allowances will be the same as the other participants.

Participants who present their work at an appropriate research or educational conference after completing the program will receive up to \$1000 for travel expenses.

## Eligibility

To be eligible for participation in the RET program, teachers should be currently teaching in one or more of the following areas: Energy; Information Technology; Manufacturing; Science, Technology, Engineering, and Mathematics; and Transportation, Distribution, and Logistics. Schools are encouraged to send at least two faculty members to the program.

Participants will be selected based on criteria such as interest in research and in developing instructional modules for classroom use, and recommendations by their principals and/or department heads. Instructors from institutions with high percentages of minority and socio-economically disadvantaged students are encouraged to apply. Once accepted, participants may continue their participation in the program for two consecutive years.

## How to Apply

Applications are available at: <http://people.tamu.edu/~hsieh/ret/about.html>. Notifications about acceptances will be sent out in late March. If you have questions, please contact the site director, Professor Sheng-Jen ("Tony") Hsieh at [hsieh@tamu.edu](mailto:hsieh@tamu.edu)