

2016 CITRIS SEED FUND AWARDS

CITRIS-ITESM Seed Funding for 2016

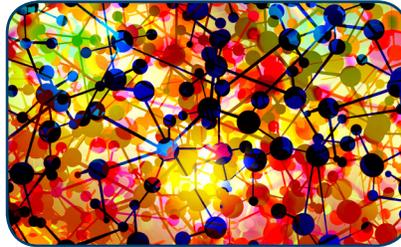
Three inventive projects have been selected to receive collaborative research grants in the second annual seed funding program sponsored by **Tecnológico de Monterrey (ITESM)** and CITRIS. The winning proposals represent the fields of healthcare, water management and smart manufacturing—topics of pressing concern to both California and Mexico. The program offers an opportunity to develop and test ideas while positioning researchers to apply for large-scale grants from national and private funders in each country.



A Decision-Support System for Water Resources Management: An Application to Monterrey, Mexico

This project integrates water-use data and socioeconomic information into a water management decision-support system. The researchers will develop long-term hydrologic and socioeconomic scenarios; model a large, metropolitan water system using hydro-economics; and identify promising water management strategies for use by city managers in times of both floods and drought.

Principal investigators:
Aldo Ramirez-Orozco (ITESM)
Josue Medellin-Azuara (UC Davis)



Diagnosis and Control of Diabetes Mellitus for Latin American Population using Data Science and Big Data

This project will develop data mining and data science tools to analyze data from diabetes patients in Latin America. The platform will integrate numerous variables such as epidemiological, financial, social, geographic, biochemical, biological and clinical data to improve understanding of the most important factors correlated with the disease and assist physicians and policy makers with prevention.

Principal investigators:
Neil Hernandez Gress (ITESM)
Ramakrishna Akella (UC Santa Cruz)



S3 Microfactory (Sustainable, Smart & Sensing) to Support the Maker Movement

The researchers will develop a S3-Microfactory (Sustainable, Smart & Sensing) that includes the characteristics of an intelligent manufacturing enterprise. The instrument will provide students with an active learning experience by offering practical exercises and experimentation. Students will be able to simulate real-life problem scenarios and propose innovative solutions to design their products, manufacturing processes and manufacturing production systems.

Principal investigators:
Jhonattan Miranda, Arturo Molina (ITESM)
Paul K. Wright (UC Berkeley)