Rockwell Catalyst Phase 1 Awards ($170,000 awarded in 2007)

In December 2007, the UWM Research Foundation announced its first awards in the Catalyst Grant Program in Advanced Automation made possible with support from the Rockwell Automation Charitable Corporation. Three awards totaling $170,000 were made as part of a five year commitment by Rockwell for a total of $850,000 in support. Rockwell Catalyst Grants are targeted to help develop UWM research capabilities in three areas – sensors & devices, materials and software & manufacturing informatics.

Advanced Gas Sensors Using Carbon Nanotubes

Junhong Chen, Ph.D., Assistant Professor, Mechanical Engineering

Project Overview. This project, "Novel Hybrid Nanomaterials and their Application for Miniaturized Gas/Vapor Sensors," involves the development of a novel sensing platform that employs carbon nanotubes for miniaturized gas sensors. This work is already the subject of a U.S. patent application that the UWM Research Foundation is pursuing.

Corrosion Resistant Ceramic Nano-coatings

Carolyn Aita, Ph.D., Wisconsin Distinguished Professor, Materials

Project Overview. Aita's project, "Smart Nanostructure Ceramic Coatings for Corrosion Protection of Electronic Components," involves the use of smart nanostructured material coatings for pitting corrosion protection of steels used in electrical contacts. In addition, her work is potentially important to other companies in the area, including Harley-Davidson, Kohler and Badger Meter, and she proposes that this will form the basis for a "corrosion consortium" among local companies.

Software Informatics Approach to Enterprise Data Management

Fatemeh (Mariam) Zahedi, Ph.D., Trisept Solutions Professor, Management Information Systems

Project Overview. This project, "Developing Strategy-to-Data Ontology for Enterprise Strategy Support System" addresses a challenge identified by Rockwell Automation of connecting the "shop floor" with the "top floor." It is a forward-looking project in the area of manufacturing informatics that will hopefully lead toward a better connection of business strategy with ever-increasing amounts of data.