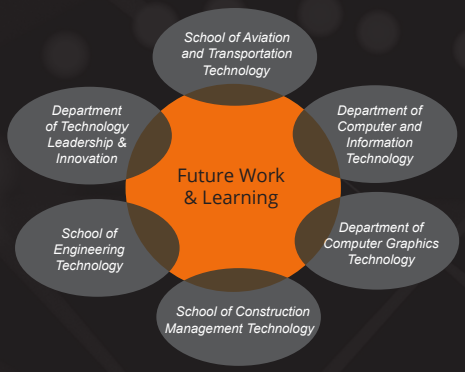
PURDUE POLYTECHNIC RESEARCH IMPACT FOCUS AREA

FUTURE WORK & LEARNING

polytechnic.purdue.edu/research

We will explore the intersection between learning and work to develop and apply innovative approaches to education and workforce training that empower people to fulfill active roles in society through participation, engagement and entrepreneurship. We aim to empower people for a future in which robots, automation and artificial intelligence will be more common.



Foci include: interaction between people & technology, workforce development, immersive learning.

FACULTY CHAMPION

Mesut Akdere
associate professor of technology leadership and innovation

"It is critical to study future work and learning and their implications so that we can rigorously explore potential directions and identify effective practices to harness our human potential and contribute to our nation's competitiveness."

GET INVOLVED: contact Mesut at makdere@purdue.edu

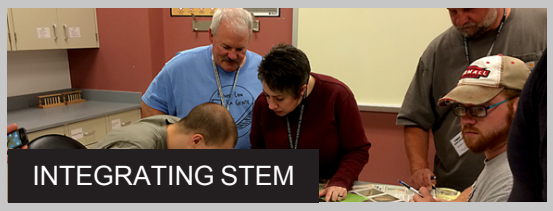
PURDUE UNIVERSITY
Polytechnic Institute

EA/EOU

INVOLVED FACULTY EXPERTISE:

- Computational Thinking & Cyberlearning
- Design
- STEM Education Research
- User Experience
- Organization and Leadership
- Workforce Development

CURRENT PROJECTS

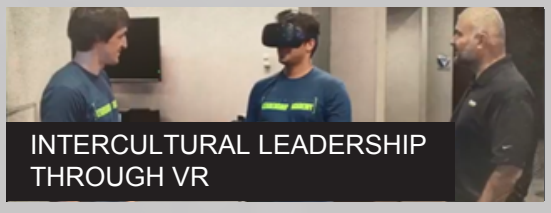


INTEGRATING STEM

Todd Kelley, professor of engineering technology teacher education, works with groups of science and technology teacher pairs from the same K-12 schools to demonstrate how integrating STEM topics improves student understanding, specifically using biomimicry to illustrate engineering design concepts.

TOUCHING COMPLEX CONCEPTS

Many concepts in STEM disciplines can be too complex or exist outside our normal experiences. Alejandra Magana, associate professor of computer and information technology, conducts research to explore how computer simulations that explain concepts such as electromagnetic charges or buoyancy can be augmented with tactile or "haptic" feedback to improve student understanding.



INTERCULTURAL LEADERSHIP THROUGH VR

Virtual reality (VR) provides a safe and scalable environment to learn. Mesut Akdere, associate professor of human resource development, studies immersive learning technologies with cutting-edge biometric data to help employees across the globe effectively develop leadership skills and enhance learning at all organizational levels.