Research

**Innovative Pedagogy Assessment: (PI)**

- What instructional interventions focused on design thinking are most influential in shaping (and reshaping) individual perceptions towards ECE?
- Understanding changes in practices and attitudes about professional formation and learning for both faculty and students.
- Establishing trends in attracting and retaining diverse students.
- How can design thinking and systems thinking be promoted in a future smart systems curriculum?

**Support for STEM Education Researchers:**

- Understanding changes in practices and attitudes about professional formation and learning for both faculty and students.
- Establishing trends in attracting and retaining diverse students.
- How can design thinking and systems thinking be promoted in a future smart systems curriculum?

**Faculty Motivation:**

- Does participating in Y-circle and X-team processes result in more faculty satisfaction and engagement based on Self-Determination Theory needs?

**Student Development and Persistence:**

- In what ways do emerging identities shape (and reshape) individual perceptions towards ECE?
- What instructional interventions focused on design thinking are most influential in the development of a professional ECE identity?

**Agile Department Development:**

- How can agile department structures and innovative, inclusive practices for teaching and learning be developed?
- How can agile departmental structures be developed to respond to industry and society needs, sustain innovations, and serve as a model for ECE, computing and engineering departments across the country?

**Student and Faculty Development:**

- How can agile departmental structures be developed to respond to industry and society needs, sustain innovations, and serve as a model for ECE, computing and engineering departments across the country?
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