



Core research group expertise:

- Control design
- Nonlinear systems theory
- Optimization
- Chemical engineering
- Numerical simulation

Advanced process control designs to solve engineering problems and improve the lives of others:

- **Cybersecurity** of process control systems
 - Prevent attacks from harming people or companies
- **Design of materials and advanced materials manufacturing** and controlled use strategies
- New techniques for developing **physics-based models from process operating data**
- **Chemical process safety**
 - Equipment material fidelity and control
 - Integrating control with learning-based hazard sensors