



Research Intersections with Penn State/Monash Partnership

1. SUSTAINABLE DEVELOPMENT

- Sustainable Infrastructure: Cities, Buildings, Urban Transitions, Net Zero
- Energy: Energy Harvesting, Alternative Energy Technologies, Materials, Net Zero
- Climate/Climate Change: Water, CO2 Utilization/Conversion Pathways

2. HEALTH AND MEDICAL SCIENCES

- Social Determinants of Health, Environmental Influences on Health, Healthy Ageing
- Digital Health Data, Electronic Health Records
- Translation: Clinical Trials
- Antimicrobial Resistance, Infectious Diseases
- Biomedical Engineering (Biosensing/Materials/Crystals/Nano/Optics)
- Quantum Biology (Biophysics/Biomolecular Imaging/Data Analytics/Visualization)

3. ARTIFICIAL INTELLIGENCE (AI) AND DATA SCIENCE

- Advanced Visualization (AI for pattern recognition, visualization methodology/technology)
- Molecular Machines

4. BETTER GOVERNANCE AND POLICY

- Intersection of Humanities Arts and Social Science (HASS) with AI
- Translation of Research into Policy and Behavioral Change

