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Research Interests

- **Computational analysis for material research: multiscale modeling, finite element analysis, discrete element analysis, multiphysical modeling, fracture simulation and molecular dynamics**
- **Acoustic and ultrasonic measurement, NDE technique; advanced X-ray and neutron scattering characterization**
- **Low-carbon cementitious materials; supplementary cementitious materials with waste ingredients; sustainable development; durability performance**
- **CLT panels and timber structures; structural resilience; climate change**
- **Resilience of electrical power distribution and transmission systems, pavement resilience subjected to extreme weather conditions**
- **Active-material actuator design, wind-structure interaction, vibration reduction.**



Links of Interest

[Publications](#)



[Institute of Computing and Cybersystems](#)



Teaching Interests

- **Matrix structural analysis**
- **Finite element analysis**
- **Concrete Materials**
- **Pavement design**
- **Timber design**

[ICC]