RCN-SEES: Predictive Modeling Network for Sustainable Human-Building Ecosystems

US-UK WORKSHOP ON
BIOSENSING-ENABLED, WELLBEING-CENTRIC SUSTAINABLE BUILT ENVIRONMENT ECOSYSTEMS

October 27-28, 2022. Nottingham Trent University, Nottingham, UK

Call for Participation (Invitation Only)

The NSF-funded Research Coordination Network (RCN) in Science, Engineering and Education for Sustainability (SEES) will hold an international workshop, organized by the RCN-SEES: Predictive Modeling Network for Sustainable Human-Building Ecosystems (SHBE) and hosted by Nottingham Trent University.

The objective of the workshop is to develop a research agenda centered on multidisciplinary research collaborations, addressing the understanding of human and building interactions in the context of human wellbeing and future work environment.   We invite researchers from health, computer/data science, architecture, engineering, construction, social science and government policy who share the common interests in harnessing data revolution to support data sharing, interoperability, modeling, analysis, and visualization for wellbeing-centric sustainable built environment. In particular, we invite the participants with the expertise in the following topics:

- Measurements and validate human wellbeing and productivity indicators.
- Data-driven, decision-making processes for sustainable and resilient building and community development that benefit to all people.
- Validation and verification of comparative models that utilize data from affordable, reliable biosensing technology.

  - Data Technology for Individual Wellbeing
  - Data for Building-level Wellbeing
  - Data for Community-scale Wellbeing
  - Wellbeing-centric built environment life cycle assessment

We encourage participation by data scientists, political/policy scientists, social scientists, engineers, computer scientists, architects, policymakers, and industry to discuss big data analytics research including the application of statistical methods, machine learning/deep learning methods, and visual analytic methods as well as big data architectures to the above- listed topics. The participation is by invitation only. Please RSVP to the workshop organizers by sending *an abstract of no more than 200 words* indicating your interests:

- Yong Tao, Cleveland State University, email: y.tao19@csuohio.edu
- Ming Sun, Nottingham Trent University, email: ming.sun@ntu.ac.uk
- Yimin Zhu, Louisiana State University, email: yiminzhu@lsu.edu

by **July 15, 2022.** *The space is limited, and the organizers make the final decision on the acceptance of abstracts based on the areas of interests. The participant will pay a moderate registration fee up to US $150 (subject to update) cover the venue and working meal cost. Participants will have an opportunity to contribute to a special technical publication.*

About SHBE-RCN

The SHBE-RCN is an NSF-RCN aiming at developing a collaborative research platform centered on overcoming bottlenecks in engineering, software and social/economic sciences that impede wider application of sustainable building technology. The network activities will focus on defining an innovative, new interdisciplinary area, "Sustainable Human-Building Ecosystem (SHBE)," that integrates human behavioral science, social and economic sciences in tandem with sciences of building design, engineering, and metrology for data validation of building energy consumption and occupant comforts. For more information, check www.shbe.org or contact PI Dr. Yong Tao at y.tao19@csuohio.edu.

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