

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
Hooley Room, Newton Building, City Campus*

Tentative Program (subject to change)

Program At Glance

Time	Topic
October 27 (Thursday)	
8:30 AM – 10:45 AM	City Tour (US Participants)
10:45 AM – 11:00 AM	Arrival
11:00 AM – 11:10 AM	Welcome Remark by Dr. Ming Sun and Dr. Yong Tao
11:10 AM – 12:30 PM	Presentations Part 1 (4 Presentations)
12:30 AM – 1:30 PM	Lunch
1:30 PM – 3:10 PM	Presentations Part 2 (5 Presentations)
3:10 PM – 3:30 PM	Break
3:30 PM – 4:30 PM	Breakout Session 1 – Topic 1
4:30 PM – 5:00 PM	Discussions
6:00 PM – Late	Networking Dinner (US Participants)
October 28 (Friday)	
9:00 AM – 9:10 AM	Welcome by Dr. Ming Sun
9:10 AM – 10:30 AM	Presentation Part 3 (4 Presentations)
10:30 AM – 10:50 AM	Break
10:50 AM – 12:10 PM	Presentations Part 4 (4 Presentations)
12:10 PM – 1:10 PM	Lunch
1:10 PM – 2:30 PM	Presentation Part 5 (4 Presentations)
2.30 PM - 2.40 PM	Break
2:40 PM – 3:40 PM	Breakout Session 2 – Topic 2
3:40 PM – 4:00 PM	Summary Session
4:00 PM	Adjourn

Technical Program:

Time Slot	Presentation	Presenter	Affiliation
October 27 (Thursday)			
Presentation Part 1 (Facilitator: Juan C. Ordonez)			
11:10 to 11:30 AM	Wellbeing-Centric Sustainable Built Environment Ecosystems	Yong Tao	Cleveland State Univ.
11:30 AM - 11:50 PM	The Use of Wearables for Post-Occupancy Evaluation	Derek Clement-Croome	University of Reading
11:50 to 12:10 PM	Coastal Cities in a Warming Climate	Jorge E. González	The City College of New York
12:10 to 12:30 PM	Housing retrofits and impact on occupants' quality of life	Anton Ianakiev	Nottingham Trent University
12.30-1.30 PM	Lunch		
Presentation Part 2 (Facilitator: Nina Sharifi)			
1:30 to 1:50 PM	Data-driven Methods to Evaluate Human-Infrastructure Interdependencies	Hiba Baroud	Vanderbilt University
1:50 to 2:10 PM	The autonomous analysis of movement in infants for early detection of neurological disorders	Alex Turner	University of Nottingham
2:10 to 2:30 PM	Understanding energy hogs: The role of magnitude and variability in electricity use	Stephen Bird	Clarkson University
2:30 to 2:50 PM	Bring biophilic art to intelligent buildings	Anthony Adole	AllSee Technologies/NTU
2:50 to 3:10 PM	SOBA: Sustainability-Oriented Building Automation	Sez Atamturktur-Russcher	Penn State University
3:10 to 3:30 PM	Break		
3:30 to 4:30 PM	Breakout Session 1 Research focuses on human and building interactions in the context of human well-being and future work environment		
4:30 to 5:00 PM	Discussions & Adjourn (Ming Sun/Yong Tao)		

October 28 (Friday)			
Presentation Part 3 (Facilitator: Hiba Baroud)			
9:10 – 9:30 AM	Investigating relationships between retrofit building systems and occupant well-being	Nina Sharifi	Syracuse University
9:30 to 9:50 AM	Biophilic design of buildings	Yangang Xing	Nottingham Trent University
9:50 to 10:10 AM	Multi-Fidelity Modeling Approach Enabling Fast Characterization of Building Thermal Responses	Juan C. Ordonez	Florida State University
10:10 – 10:30 AM	Occupant Preference-Aware Load Scheduling for Resilient Communities	Wangda Zuo	Penn State University
10:30- 10:50 AM	Break		
Presentation Part 4 (Facilitator: David Fannon)			
10:50 to 11:10 AM	Strategies for resolving the participation gap in buildings and cities	Richard Bull	Nottingham Trent University
11:10 to 11:30 AM	Standalone Stretchable Device Platform for Human Health Monitoring	Huanyu Larry Cheng	Penn State University
11:30 to 11:50 AM	TBC	Qinggang Meng	University of Loughborough

11:50 to 12:10 PM	Visual Analytics Approach for Wellbeing Centric Sustainable Built Environment Ecosystems	Issac Cho	Utah State University
12:10 to 1:10 PM	Lunch		
Presentation 5 (Facilitator: Wangda Zuo)			
1:10 to 1:30 PM	AI-assisted Digital Twin Thermal Comfort Analysis and Optimisations in Miami	Thomas Spiegelhalter	Florida International University
1:30 to 1:50 AM	Human-In-The-Loop Thermostat	David Fannon	Northeastern University
1:50 to 2:10 PM	Fusing Virtual Experimental Data on Human Experiences into Building Performance Analysis	Yimin Zhu	Louisiana State University
2:10 to 2:30 PM	Measuring wellbeing of building occupants	Ming Sun	Nottingham Trent University
2:30 to 2:40 PM	Break		
2:40 to 3:40 PM	Breakout Session 2 International multidisciplinary research collaboration infrastructure		
3:40 to 4:00 PM	Summary & Adjourn (Ming Sun/Yong Tao)		

- Each presentation is **20 minutes**, including questions and discussion.
- Please plan a less than **15-minute** presentation and allow a **5+-minutes** discussion and transition.
- The presenters please upload the PowerPoint slide files before the workshop to the website.

Breakout Discussion Sessions:

- Topic 1- Day 1: Research focuses on human and building interactions in the context of human well-being and future work environment
 - Topic 2- Day 2: International multidisciplinary research collaboration infrastructure
- Participants will be divided into groups, which will be determined during the workshop.

Contact Persons in Cleveland State University:

- *Reimbursement:* Carol Terrell <c.terrell56@csuohio.edu>
- *Program Materials (abstract/bio/web posting):* Irena Weclawiak iweclawiak@gmail.com

Workshop Organizers:

- 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

TRAVEL PLAN:

Arrival Airport: London Heathrow International Airport

Train to Nottingham:

1. From Heathrow Terminal 2&3, take the Piccadilly line to the King's Cross St. Pancras Station. (*Alternative:* take Heathrow Express)
2. At the King's Cross St. Pancras Station, take a short walk to the St Pancras International Station to the EMR train to the Nottingham Station.
3. From the Nottingham Station to the recommended hotel, Hilton Nottingham, take an Uber, taxi, or bus, or just walk. The distance is only 0.8 miles.

Hotel Information: Recommended: **Hilton Hotel**, Milton Street, Nottingham NG1 3PZ. T: +44 115 934 9700. [Website](#). Alternative hotels (see the list in the appendix with [the map](#).)

About Nottingham Trent University, UK: Web site: <https://www.ntu.ac.uk/>