

ADVANCES >>>

## The Newsletter of the Western Academy

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### A new approach to smart cities

Katharine Willis believes that smart cities need to centre the human experience.

“The aim is not just thinking about the technology, but the way it fits with the city and the way that communities interact with or benefit from it,” she said.

Willis is a smart cities expert at the University of Plymouth (Plymouth, UK). She is also a Visiting Fellow with the Western Academy's latest research theme, [Interdisciplinary Research to Address Technical and Social Barriers in Smart Cities and Communities](#), which launched in January 2024.

Smart Cities and Communities is led by Ayan Sadhu (Civil and Environmental engineering). Sadhu is joined by Western Fellows Abdallah Shami (Electrical and Computer Engineering), Anabel Quan-Haase (Sociology and Faculty of Information and Media Studies), Post Doctoral Scholars Liangfu Ge and Dimitrios Manias, and Visiting Fellows Jalel Ben-Othman (Universite Sorbonne Paris Nord) and Willis.

The team strives to harness the benefits of emerging technologies in a way that is ethical and enhances the lives of all citizens.

A smart cities and communities workshop will be taking place in July in partnership with the Western Academy and Western's Faculty of Engineering. More details to come! Be sure to check our website for the most up-to-date information about events and more: <https://uwo.ca/academy/index.html>.

## Turning Carbon into Clean Energy

Can carbon dioxide be turned into clean fuel? Western Fellow Naomi Klinghoffer (Chemical & Biochemical Engineering), from the [Nature-Inspired Solutions for Carbon Transformation](#) theme, and Alexandra J Frainetti (Chemical & Biochemical Engineering) have discovered a new way of transforming carbon dioxide into a sustainable energy source. This new technique harnesses the potential of biochar, a carbon-rich natural material derived from wood and other plant matter. The team's discovery promotes a renewable approach to energy production that makes use of agricultural and wood waste. Read about it in [Biomass and Bioenergy](#).

## Art meets science in "Kaleidoscope of Creativity"

What happens when climate science is translated into music?

On March 1, the Don Wright Faculty of Music hosted an immersive musical experience inspired in part by the work of the Northern Tornadoes project and Western Academy Visiting Fellow Dr. Lucy Jones.

Jones believes that music can be a catalyst for change. As a Visiting Fellow with the [Climate Resilient Infrastructure and Buildings](#), Jones had a chance to put this idea into action when she co-organized last October's [Music for Climate Action](#) concert with the Don Wright School of Music. *Kaleidoscope of Creativity* is a continuation of this work.

The event was supported by the Don Wright Faculty of Music, [Northern Tornadoes Project](#), the [School of Advanced Studies in the Humanities](#), Western Academy for Advanced Research, and Ivey School of Business.

Read the full story in the *Western News*:

<https://news.westernu.ca/2024/02/musical-tornadoes/>

## Upcoming events

### May 5: Understanding Uncertainties in Greenhouse Gas Inventories

*Location: Niagara Falls, ON*

A talk by Theme Leader Chris DeGroot as part of the Ontario Water for the Future-Water Environment Association of Ontario conference.

### May 11: Science Rendezvous at Western University

*Location: Western Alumni Stadium, Western University*

Check out the "Nature-inspired solutions for carbon transformation" booth at this year's Science

Rendezvous! More

information: <https://sciencerendezvous.uwo.ca/>

### May 26: Exploring Solutions for Carbon Transformation Workshop

*Location TBA, London, ON*

Presented in partnership with Carbon Solutions. Join us for a day of insights and collaborative discussion. Topics include: carbon capture and sequestration, climate resilience in wastewater management, organic waste management, bio-based products in agriculture and more! For more information contact [jfarmerb@uwo.ca](mailto:jfarmerb@uwo.ca).

## Visiting Fellow named one of USA Today's Women of the Year

Renowned seismologist and Western Academy Visiting Fellow Lucy Jones was named one of [USA Today's Women of the Year](#) for 2024.

Described by the [LA Times](#) as "California's beloved earthquake expert," Jones played a key role in developing the [Great ShakeOut](#), an earthquake drill that is practiced by 57 million people worldwide. In recent years, Jones has emerged as a leading voice for climate action and resilience.

Other honourees include Olympic gymnast and survivor advocate Aly Raisman and Dr. Melissa Gilliam, the first woman and the first Black president of Boston University.

## Congratulations to our Canada Research Chairs

Congratulations to Western Fellows Ayan Sadhu and Katsu Goda (Earth Sciences) on their Canada Research Chair Appointments! Sadhu (Civil and Environmental Engineering) is the newly appointed Canada Research Chair in Smart and Sustainable Infrastructure. Goda's appointment as Canada Research Chair in Multi-Hazard Risk Assessment has been renewed. Goda has held this role since 2018.

## Awards & Distinctions

Theme Leader **Ayan Sadhu** and Western Fellow **Katsu Goda** have been appointed as Canada Research Chairs. Western Fellow **Abdallah Shami** (pictured below) is the recipient of a [2024 Faculty Scholar Award](#) at Western. He has also been named as a fellow of the [Asia-Pacific Artificial Intelligence Association](#).

[The Canadian Mathematical Society](#) is hosting a conference in honour of Western Fellow **Ján Mináč** (Mathematics) in Ottawa from June 13—16.

## Current & Upcoming visitors

>>>March—April 2024, July—August 2024

**Paola Giudicianni**, *Consiglio Nazionale delle Ricerche (Naples, Italy)*

Nature-Inspired Solutions for Carbon Transformation

>>>May, July 2024

**Mojtaba Jarrahi**, *Université Paris-Saclay (Saclay, France)*,

Nature-inspired solutions for Carbon Transformation

>>>June 2024

**Jalel Ben-Othman**, *Université Sorbonne Paris Nord (Gif-sur-Yvette, France)*

Interdisciplinary Research to Address Technical and Social Barriers in Smart Cities and Community

>>>July—August 2024

**Katharine Willis**,

*University of Plymouth (Plymouth, UK)*

Interdisciplinary Research to Address Technical and Social Barriers in Smart Cities and Community

**The Western Academy for Advanced Research**

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