

WIHSE Leadership Team



Director

- **Pascale Carayon** – Department of Industrial and Systems Engineering, College of Engineering

Associate Directors

- **Oguzhan Alagoz**, Department of Industrial and Systems Engineering, College of Engineering
- **Jingshan Li**, Department of Industrial and Systems Engineering, College of Engineering
- **M. Elizabeth Meyerand**, Department of Biomedical Engineering, Department of Medical Physics, College of Engineering, School of Medicine and Public Health

Executive Committee

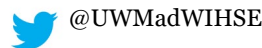
- **Robert Batt**, School of Business
- **Barbara Bowers**, School of Nursing
- **Michelle Chui**, School of Pharmacy
- **Peter Hoonakker**, Wisconsin Institute for Healthcare Systems Engineering, College of Engineering
- **Maureen Smith**, Department of Population Health Sciences, School of Medicine and Public Health
- **Nicole Werner**, Department of Industrial and Systems Engineering, College of Engineering
- **Douglas Wiegmann**, Department of Industrial and Systems Engineering, College of Engineering
- **Gabriel Zayas-Caban**, Department of Industrial and Systems Engineering, College of Engineering

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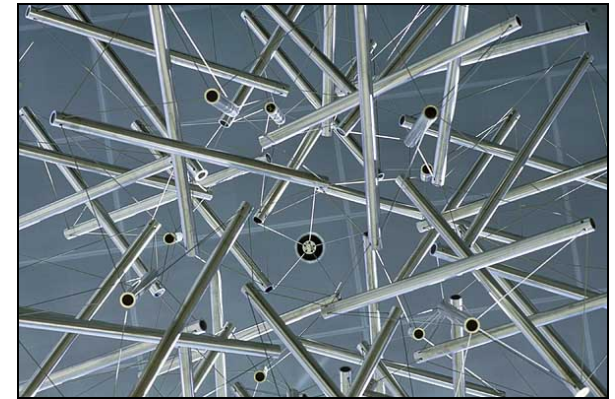
Wisconsin Institute for Healthcare System Engineering

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WIHSE

Wisconsin Institute for Healthcare
Systems Engineering



*Vision: To be the premier research institute
that transforms health care through engineering*



College of Engineering
UNIVERSITY OF WISCONSIN-MADISON

wihse.engr.wisc.edu

About WIHSE

The Wisconsin Institute for Healthcare Systems Engineering (WIHSE) is an interdisciplinary research center at the University of Wisconsin–Madison's College of Engineering.

History

Discussion and planning for WIHSE was initiated in 2015 by Professor Pascale Carayon. It was formally recognized as an Institute by the University in July of 2017. Since its inception, WIHSE activities have been led by an interdisciplinary executive committee with representatives from 4 schools/colleges on the University of Wisconsin-Madison campus including: Engineering, Medicine and Public Health, Nursing and Pharmacy. This model gives WIHSE a strong and unique position to implement interdisciplinary HSE research.



College of Engineering Roundtable, August 2016:
Participants during Welcome to the event



2017 When Healthcare Meets Engineering Event,
participants engaged in discussion at one of the theme tables

WIHSE Research Themes

WIHSE research applies Healthcare Systems Engineering (HSE) to address the Quadruple Aim:

- To revolutionize the **patient experience**
- To improve **population health**
- To control **healthcare costs**
- To enhance **clinician satisfaction**

We aim to be the hub for research innovations in HSE. To achieve this, WIHSE brings together engineers and health scientists as well as healthcare delivery and technology companies to transform health care into an integrated system. We do this by expanding our knowledge and developing *smart and connected healthcare systems and technologies*.

WIHSE research will serve as a catalyst to transform health care into an engineered, information-rich system that provides patient-centered, effective, efficient and safe care. It focuses on 4 themes:

1. Monitoring and anticipating for safe care transitions for vulnerable populations (e.g., children, elderly patients).
2. Smart automation and technologies for coordinating and communicating diagnosis and treatment: Application to cancer and diabetes.
3. Smart and connected patient-centered care: Implications for clinical decision support, telehealth and sensing technologies.
4. Modeling, forecasting and responding to healthcare-associated complications (e.g., infections, medication safety)

WIHSE Consortium

As WIHSE develops we will continue to reach out to healthcare delivery and technology companies to become research partners. By partnering with industry we strive to develop innovative and impactful engineering concepts and methods to improve processes and decision making at all levels of healthcare delivery and across the continuum of care.

Events

As WIHSE grows we will offer events for faculty and staff on campus as well as individuals off campus. This will afford attendees the opportunity to become more familiar with our research and build research collaborations. Check our website for event information at <http://wihse.engr.wisc.edu>.

Upcoming Event

- 2020 WIHSE Conference - May 11, 2020 at Union South <https://wihse.engr.wisc.edu/events/wihse-2020-conference/>

Past Events:

- August 2016 – College of Engineering Roundtable
- January 2017 – When Healthcare Meets Engineering Roundtable
- March 2017 – WIHSE Inaugural Conference
- May 2018 – WIHSE 2018 Conference



Poster session during the 2018 WIHSE Second Annual Conference



Patricia Flatley Brennan, Director of the National Library of Medicine, was the closing keynote of the WIHSE 2018 Second Annual Conference