



Community MEMBER PROFILE

Dr. Ming Xiao

THE PENNSYLVANIA STATE UNIVERSITY

PROFESSOR OF CIVIL ENGINEERING





Dr. Xiao's team installed two-kilometer fiber-optic cables in the tundra of Utqiagvik Alaska using distributed acoustic sensing and temperature sensing technologies to study long-term variations in permafrost related to climate change.

WHAT DO YOU STUDY?

I am a Professor of Civil Engineering and my specialty is technical engineering dealing with soils, ensuring soils can act as a support for infrastructure foundations. This specialty naturally relates to the permafrost degradation in the Arctic, including along coastline areas. My research in these areas addresses the processes and changes related to permafrost degradation and their larger impact on people's lives.

WHAT FASCINATES YOU ABOUT THIS WORK?

The research itself inspires me! Conducting research—particularly multidisciplinary or interdisciplinary research—where I can work with and learn from others. Working with my students is also a very rejuvenating and fulfilling process. Another strong motivation that excites me is the potential for our work to be useful to Arctic communities and to inform decision-making.

WHAT ELSE WOULD YOU LIKE TO WORK ON?

I wish to work with others involved in the education of future Arctic and polar region engineers. For the Arctic to be resilient and adaptive, we must rely on the next generation scientists and engineers. I wish to contribute to that by working with other educators, local Indigenous community members, engineers, and teachers to help instill this sense of responsibility and desire to learn from an early age.

WHEN YOU AREN'T DOING ARCTIC RESEARCH, WHERE MIGHT WE FIND YOU?

I have two elementary school-aged kids, seven and nine years old, and we love traveling together—from short trips to Pittsburgh a couple hours away, to longer drives, or even international trips—they love it! Planning our trips together and finding different ways to have a good time with them both is something I really enjoy.



Dr. Ming Xiao

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[MING XIAO'S RESEARCH TEAM WEBSITE](#)

RELATED WEBSITES:

- [PEOPLE INFRASTRUCTURE PERMAFROST RESILIENCE PROJECT](#)
- [PERMAFROST COASTAL EROSION RESEARCH COORDINATION NETWORK](#)

YOUTUBE: [THE CHANGING ARCTIC CHANNEL](#)

