

## MSE Seminar

# Jointly with Nuclear Engineering Webinar Series

Virtual: [bit.ly/vtnuclear91721](https://bit.ly/vtnuclear91721)

Friday, Sept. 17, 2021

10:30 AM – 12:00 PM



Register: <https://bit.ly/vtnuclear91721>

## Prof. Sidney Yip

Nuclear Science and Engineering and Materials Science  
Massachusetts Institute of Technology

### “Liquid Stone: Science of Cement Setting at the Mesoscale”

Science and Technology currently is facing global opportunities in materials innovations, driven by the emergence of Artificial Intelligence and Machine Learning coupled to High Performance Computing.

Using cement setting as a grand-challenge in the understanding of complex molecular mechanisms we discuss how it can lead to academic research in nuclear, materials, and computational science and engineering. The interconnectivity suggests a materials simulation enterprise world-wide that could be called the ‘Mesoscale Science Frontier’.



**Sidney Yip** joined the faculty at Massachusetts Institute of Technology in 1965 and became professor emeritus in Nuclear Science and Engineering and Materials Science and Engineering in 2009. His research interests lie mostly in atomistic modeling and simulation of fundamental properties and behavior of simple model solids and glasses. Recently he co-edited *The Handbook of Materials Modeling*, Second Edition.

In this talk he will share his reflections on an academic career that has spanned the disciplines of nuclear, materials, and computational science.