

Urban Mining towards Environmental and Resource Sustainability



Xianlai Zeng

School of Environment, Tsinghua University

**School of Forestry and Environmental Studies,
Yale University**

Tuesday, March 26 2019, 12:00pm-13:30pm

ISE Lab 467

Abstract: An increasingly multitude of underground mineral resources are being transferred into products and waste, which in turn can be an anthropogenic resource or urban mineral. Urban mining has been recognized as an important solution for environmental and resource sustainability. This talk will involve many disciplines covering environmental science and engineering, industrial ecology, green chemistry, sustainability science, and earth science. The urban mining story on what, why, how, and next direction from science and technology to policy and industry will be addressed in detail. The seminar presentation will take around one hour.

BIO: Xianlai Zeng studied urban mining, metal sustainability, and circular economy as associate professor at Tsinghua University. Now he is Fulbright visiting fellow in Yale. He ever worked four years as lecturer at Environmental Management College of China, and two years as a postdoctoral research fellow in Tsinghua University, technical advisor of United Nations Development Programme (2015), visiting staff of Coventry University (2012), and visiting professor of Macquarie University (2017). Regarding urban mining, he established the method to measure the recyclability and recycling of e-waste, and developed many key pilot processes to recover metals. Regarding metal sustainability, he also established some methods to identify the sustainable utilization of metals (e.g., lithium, cobalt, nickel, lead, tin, gallium). In waste recycling and circular economy areas, Prof. Zeng has published around 100 articles, patents, and books.