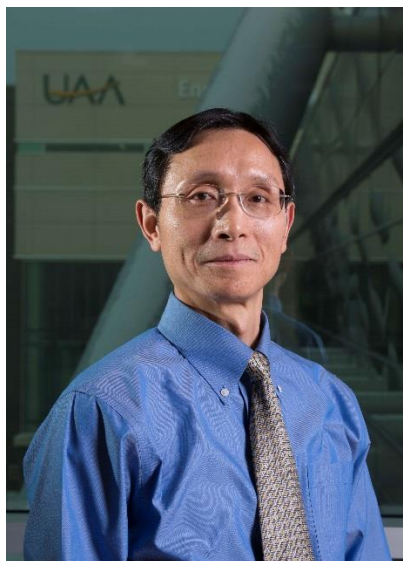




**UAA College of Engineering**  
UNIVERSITY of ALASKA ANCHORAGE



UAA Professional Development Seminar Series

## **Growing Insulation from Fungus and Forestry By-products**

Presented by [Dr. Z. Joey Yang](#)

Traditional insulation materials such as EPS/XPS foams or fiberglass are extensively used in housing and infrastructure construction in cold regions. These materials are light, hydrophobic, and inexpensive. However, they are nonrenewable, hard to decompose in natural environment, and produce toxic leaches. This presentation will describe an alternative biodegradable insulation material, consisting of biomass such as saw dust, natural fibers and nutritive substrate bound together by fungal mycelium (roots of mushroom). This type of material, referred to as *biofoam*, is renewable, biodegradable, quickly renewable, capable of capturing and storing carbon, and meets or exceeds characteristics of the conventional polymeric thermal foams, such as R-value, flexural strength, elastic modulus. Manufacturing methods will also be discussed.

**Dr. Joey Yang** is the current Chair of the Department of Civil Engineering at UAA's College of Engineering. He has published more than 70 peer-reviewed papers, including 30 journal articles with expertise is in geotechnical and earthquake engineering. In addition, he has maintained an active research program, with interests on cold weather regions.

Friday, March 30, 2018

11:45 am - 12:45 pm

UAA College of Engineering, EIB 211