Thursday, September 24, 2015
4:00 – 5:00 PM
Room 1610 Engineering Hall
1415 Engineering Drive

The US Manufacturing Technology Policy & Manufacturing Paradigm Shift
Presented by: Sangkee Min, Asst. Professor of Mechanical Engineering at University of Wisconsin-Madison

Abstract: After Lehman Brother's crisis in 2008, the US has been confronting serious financial challenges at all corners of the US. The president's Council of Advisors on Science and Technology published a series of reports on US manufacturing and concluded that a key component of revival of the US economy and its sustainable growth is having US manufacturing. Therefore, the US government puts national efforts to advance manufacturing technology, supply skillful workforce and education, upgrade manufacturing infrastructure, and institute proper policy to assist these efforts. The one of key objectives of these efforts is to bring back manufacturing to the US and create jobs.

The other important objective is to maintain US manufacturing technology very competitive and advanced. Due to the relatively higher cost of labor and manufacturing infrastructure, it is essential for US manufacturing to be most productive, which requires focused areas of industry and manufacturing technologies which have broad and pervasive impacts on US economy. Understanding these efforts will provide good guidance of future manufacturing technology and opens potential opportunities for future markets. With these needs and rapid change of socio-economic behavior of people, new manufacturing paradigm emerges which may lead new business opportunities. This presentation intends to educate students to read manufacturing policy and trend and provide better insights on current and future business and manufacturing practice.

Bio: Sangkee Min earned his Ph.D. in Mechanical Engineering from the University of California at Berkeley. He developed environmental friendly machining technology at Keio University in Japan. After coming from Japan, he developed a process from MRI scanning of a knee to prototype fabrication of surgery assistive device while he was working for a medical venture company. He continued his career at Mori Seiki to develop an ultra-precision 5-axis machine tool. He also worked with Samsung to optimize mold fabrication for their refrigerator and establish a global manufacturing strategy for home appliances. Since 2012, he has assisted to reform US Manufacturing Policy and Research Programs and also has worked to establish Ultra-Precision Machining technology in the US. His research areas at UW are UPM (Ultra-Precision Manufacturing), MFD (Manufacturing For Design), sustainable manufacturing (energy focus), and appropriate technology.