

Advanced Manufacturing Seminar Series

Friday, November 6, 2020

11:30 AM – 1:00 PM (Pacific Time)

Registration link: https://usc.zoom.us/webinar/register/WN_Og2AM47xQPmuDYgkAP-3NA

Nature's Tool Box for Smart Manufacturing Enterprise

Dr. Ajay Malshe

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Abstract: Speaker will discuss simplicity, elegance, and robustness as foundations for innovations for equity in a smart and inclusive enterprise. This talk will discuss functions, structures, and resilience demonstrated by nature in a sustainable ecosystem. Speaker will share multiple examples to illustrate lessons materials and manufacturing disciplines can learn and apply to advance state of the art for better multifunctionality, adaptability, survivability, and sustainability.



Biography: Ajay P. Malshe is the Goodson Distinguished Professor at the School of Mechanical Engineering at Purdue. Malshe's fields of study are bio-inspired designs, multifunctional materials, and convergent manufacturing processes. Application areas of his interest are machining, lubrication, and corrosion for advanced mechanical machines, food and agriculture manufacturing, and manufacturing in space. He has overlapping 24 years of academic plus 15 years of industrial entrepreneurship and executive leadership experience. He has more than 25 allowed patents with more than 60 percent resulting in commercialized products used across many industrial sectors worldwide including energy, performance racing, automotive, aerospace, transportation, and others. He has 225 plus peer-reviewed publications and has delivered 105 plus keynote and invited talks across the US and the world. Malshe has trained 65 plus graduate and post-doctoral students and more than 1250 undergraduate students and mentored young professional engineers in the industry. He has also worked extensively with high school students and teachers to advance student learning success. He has received more than 40 honors and awards including The 20 most influential professors in smart manufacturing, SME (2020), Member of the National Academy of Engineering (NAE; 2018) Fellow of four prestigious societies, 1. Institute of Physics (IoP), London, UK; 2. International Academy of Production Engineering (CIRP); 3. American Society of Mechanical Engineering (ASME); and 4. American Society of Materials (ASM); SMEs' Dornfeld Blue Sky Award for "Manufacturing In Space"(2018); NanoBusiness Alliance's Lifetime Achievement Award (2018), Society of Manufacturing Engineers' S.M. Wu Research Imp. Award (2018) and more.