

BIOGRAPHICAL SKETCH OF PROF. JAY LEE



Dr. Jay Lee is Ohio Eminent Scholar, L.W. Scott Alter Chair Professor, and Univ. Distinguished Professor at the Univ. of Cincinnati and is founding director of National Science Foundation (NSF) Industry/University Cooperative Research Center (I/UCRC) on Intelligent Maintenance Systems (www.imscenter.net) which consists of the Univ. of Cincinnati (lead institution), the Univ. of Michigan, Missouri Univ. of S&T, and the Univ. of Texas-Austin. Since its inception in 2001, the Center has been supported by over 100 global companies including P&G, GE Aviation, Eaton, National Instruments, Boeing, Goodyear, Toyota, Caterpillar, Siemens, Chevron, Honeywell, Parker Hannifin, Spirit AeroSystems, Ingersoll Rand, Intel, Lam Research, Global Foundry, TI, Applied Materials, Automated Precision Inc. (API), Samsung Korea, FORCAM, Bosch Rexroth, Alstom Transport, Plastic Omnium, Denso, Hitachi, Omron, Nissan, Toshiba, MHI, Mitsubishi Electric, Daikin, Tekniker of Spain, FMTC of Belgium, Kistler of Switzerland, HIWIN, Advantech, Cosen, PMC, III, UMC, SANY, China State Ship, Shanghai Electric, BaoSteel, Foxconn, Huawei, etc. IMS was selected as the most economically impactful I/UCRC in the NSF Economic Impact Study Report in 2012 which reported that the Center has delivered to its members a combined benefit of \$847.6 million in cost savings, and that the Center returned \$238.30 of benefits for every \$1 invested by the National Science Foundation.

His current research focuses on predictive big data analytics and cyber physical systems for intelligent maintenance, prognostics and health management (PHM), and Industry 4.0 systems. He was selected to be one of the 30 Visionaries in Smart Manufacturing in U.S. by SME in Jan. 2016. In addition, he is co-Founder of Predictronics--a start-up company from NSF IMS Center of the Univ. of Cincinnati through NSF ICorp award in 2012. In addition, his Team has won the 1st Place PHM Data Challenges five time out of nine competitions since 2008.

Currently he serves as a senior advisor to McKinsey & Company, S&T advisor to Plastic Omnium of France, Member of Scientific Advisory Board of A*STAR SIMTech of Singapore, member of Board of Governors of the Manufacturing Executive Leadership Board of Frost Sullivan, and Board member of PHM Society etc. He also serves as on the Leadership Council of MFOresight--a NSF/NIST funded Manufacturing Think Tank in Sept. 2015 as well as a member of Technical Advisory Committee (TAC) of Digital Manufacturing and Design Innovation (DMDI) in 2014. In 2013, he was invited to serve on the Advisory Committee member for White House Cyber Physical Systems (CPS) Workshop for American Challenge Initiative.

He also served as a honorary professor and visiting professor for a number of institutions including Cranfield Univ. in UK, Lulea Univ. of Technology in Sweden, Univ. of Lorraine in France, etc. In addition, he serves as editors and associate editor for a number of journals including IEEE Transaction on Industrial Informatics, Int. Journal on Prognostics & Health Management (IJPHM), etc.

Previously, he served as director for product development and manufacturing at United Technologies Research Center (UTRC) as well as program directors for a number of programs at NSF including the Engineering Research Centers Program, the Industry/University Cooperative Research Centers Program, and Materials Processing, and Manufacturing Program, etc., etc. He also served on the NRC Board on Manufacturing and Engineering Design (BMAED) during 1999-2005 as well as a number of NRC Study and Assessment Panels since 1999.

He has authored/co-authored numerous highly influential articles and technical papers in the areas of machinery monitoring and prognostics, E-manufacturing, and intelligent maintenance systems. His papers have been listed as most cited paper in the most prestigious journals including Journal of Mechanical Systems and Signal Processing (MSSP), Journal of CIRP, as well as SME Manufacturing Letters, etc. He has over 20 patents and trademarks. He is a frequently invited speaker and has delivered over 230 keynote and plenary speeches at major international conferences. He is a Fellow of ASME, SME, as well as a founding fellow of International Society of Engineering Asset Management (ISEAM).

He has received a number of awards including the most recent Prognostics Innovation Award at NI Week by National Instruments in 2012 and NSF Alex Schwarzkopf Technological Innovation Prize and MFPT (Machinery Failure Prevention Technology Society) Jack Freary Award in 2014, and PICMET Medal of Excellence in 2016. In 1994, he received President Clinton's Appreciation Letter for his participation and contribution to the United States Technology Reinvestment Program (TRP). He is also an advisor to the *Heifer* International--a charity organization working to end hunger and poverty around the world by providing livestock and training to struggling communities.