



Challenges and Research Opportunities in Aviation and Aerospace Engineering

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Abstract:

Over the past twenty years there have been significant changes in technology driven by economic, environmental and political issues. While there is a desire to have affordable, leading edge technologies, the technology changes that have been occurring and the decisions to use a new technology or stay with an older technology, dramatically impact life cycle costs, obsolescence and reliability. These in turn impact logistics and business practices, and offers opportunities for companies to be innovative and differentiate their systems and services. **This presentation will discuss about the changes in aviation, aerospace and avionics services and present various opportunities for research.**

Biosketch:

Prof Michael Pecht is a world renowned expert in strategic planning, design, test, IP and risk assessment of products and systems. In 2008, he was awarded the highest reliability honor, the IEEE Reliability Society's Lifetime Achievement Award. In 2009, his CALCE Center received the NSF Innovation Award. In 2010 he received the IEEE Exceptional Technical Achievement Award for his innovations in the area of prognostics and systems health management. In 2011, he received the University of Maryland's Innovation Award for his new concepts in risk management. Prof Pecht has a BS in physics, an MS in Electrical Engineering and an MS and PhD in Engineering Mechanics from the University of Wisconsin at Madison. He is a Professional Engineer, an IEEE Fellow, an ASME Fellow, an SAE Fellow and an IMAPS Fellow. He has previously received the European Micro and Nano-Reliability Award for outstanding contributions to reliability research, 3M Research Award for electronics packaging, and the IMAPS William D. Ashman Memorial Achievement Award for his contributions in electronics analysis. He served as chief editor of the IEEE Transactions on Reliability for eight years, as chief editor for Microelectronics Reliability for six years, as an associate editor for the IEEE Transactions on Components and Packaging Technology and on the advisory board of IEEE Spectrum. He is the founder and Director of CALCE (Center for Advanced Life Cycle Engineering) at the University of Maryland, which is funded by over 150 of the world's leading electronics companies at more than US\$6M/year. He is currently a Chair Professor in Mechanical Engineering and a Professor in Applied Mathematics at the University of Maryland. He has been a Visiting Professorship in Electronics Engineering at City University of Hong Kong, in Systems Engineering at Beihang University in Beijing, in Reliability Engineering at Nanjing University of Aeronautics and Astronautics, and in Physics at Shanghai JiaoTong University. He has written more than 20 books and over 500 technical articles on product reliability, development, use and supply chain management. He has also written a series of books about the electronics industry in China, Korea, Japan and India. He consults for 22 international companies, including most of the leading aerospace companies.

Online Registration

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