Dr. Umur Yenal is a Technologist/Engineering Consultant at HBM Prenscia. He is involved in the delivery of training seminars in the fields of Reliability and Quality Engineering, as well the development of ReliaSoft’s software products. He also plays a significant role in the HBM Prenscia consulting team and has been involved in various projects across different industries, including Oil & Gas, Power Generation, Automotive, Semiconductor, Defense and Aerospace.

He holds a MSc degree from the Technical University of Denmark and a Ph.D. in Environmental Engineering from the University of Arizona. Before joining HBM Prenscia, he worked as a post-doctorate research associate and as a test manager at the University of Arizona. His areas of interest include life data analysis, system reliability, accelerated life testing, reliability growth analysis, and reliability block diagrams.

Vladimir Crk is a technical fellow at the UTC Aerospace Systems (UTAS), a division of the United Technologies Company. He received his MS and Ph.D. in reliability engineering from the University of Arizona, Tucson, AZ. He has over 30 years of experience in the reliability and quality engineering, engineering statistics, Design for Six Sigma (DFSS) and Design for Reliability (DFR). He is the corporate leader for the strategic development and implementation of the reliability, maintainability and safety engineering methodologies in the new product design and development process.

He has made contributions to a number of industry standards; e.g., IEEE 1413.1 & IEE 1432 - Guide for Developing and Assessing Reliability Predictions, and SAE ARP standards. He has published and presented numerous papers and made presentations at the major reliability engineering conferences (RAMS Symposium, SAE—Society of Reliability Engineers, International Applied Reliability Symposium), keynote speaker at the 23rd ISSAT RQD (International Society of Science and Applied Technologies) and seminars at universities (Northern Illinois University, NIU).

Azadeh Keshtgar received her Master and PhD in Reliability Engineering from University of Maryland. She has an Aerospace Engineering background and more than 15 years of experience in combined Reliability Analysis and Aeronautical Structural Integrity. She has worked at the University of Maryland where she conducted research on application of non-destructive testing in Prognostic and Structural Integrity Management of aircraft structures. Her research led to the development of a state-of-the-art probabilistic model for detection of crack initiation in airframe structures.

During her career at TDA Inc., she leads multiple research projects for developing solutions to ensure the quality of structural integrity management and aviation safety. Her research has been funded by a number of government agencies. In her current position at WMATA she works on developing optimization plans for Reliability Centered Maintenance of fleets, Analysis of system reliability and fleet operational performance.

She has technical skills and hands on experience in utilizing and developing research on probabilistic estimation and uncertainty quantification of structural damage state, Reliability estimation of Additive Manufacturing products and prediction model development for quantifying probability of failure of aircraft structures.

Student organization of AIAA
American Institute of Aeronautics and Astronautics

Co-sponsor with HBM Prenscia

Invite you to attend:
Design for Reliability in Aeronautical Engineering Seminar

Topics:
- Practical Reliability Analysis in Fleet Management
- Surrogate-Based Reliability Assessment of Aircraft Structures
- DFR in Action: Applications for Success
- Reliability Engineering Challenges in Aerospace Industry
- Approaches to Design for Reliability in Aircrafts

Free registration and lunch will be provided!

Monday, September 24th, 2018
8:30 AM – 4:00 PM
UW-Milwaukee – Union Ballroom

Ms. Melanie Cox

Melanie attended Sheffield Hallam University and graduated with a B.Eng. in Engineering with Business Studies. She started her career at Rolls-Royce Nuclear Engineering Services working on design and analysis for spent fuel remote handling equipment, while continuing her studies to gain an M.Sc. in Manufacturing Systems Engineering from Warwick University. In 1992 she won the Rolls-Royce Chairman’s Award for contribution by a young person.

She then took her experience with safety and reliability critical systems to Lucas Aerospace and worked as a systems engineer on flight control and thrust reverser actuating systems until 2002, when she joined GE Aviation. She emigrated from the UK to the US in 2005 and expanded her focus to cover all system, component, aircraft/engine integration, control, monitoring, certification and test aspects of GE’s hydraulic reverser systems. She became Principal Engineer in 2010 and took the role of fuel system team leader in 2011. In 2012 she transitioned to the GE Chief Engineer’s Office as GE Aviation’s “Design for Reliability” Leader where she updated and re-launched the process and training across 14 sites globally as well as providing mentoring, coaching and consulting on a variety of field issues.

Melanie’s current role is on the LEAP program – a CFM engine that powers the latest variants of both the Boeing 737 and Airbus A320 and which incorporates breakthrough technologies to achieve a 15% reduction in fuel consumption. She continues to work on the practical aspects of fleet reliability and is responsible for the Leading Indicator Program and for Time-On-Wing. She recently gained the title of Consulting Engineer.

Prof. Nathan Salowitz

Nathan Picchietti Salowitz received the B.S. degree in engineering mechanics from The University of Wisconsin – Madison in 2001 and the M.S. and Ph.D. degrees in Aeronautics and Astronautics from Stanford University, Stanford, CA, in 2006 and 2013 respectively.

From 2003 to 2005 he was a Structural Analyst with Boeing. After receiving his Ph.D., he was an Engineering Research Associate in the Structures and Composites Laboratory at Stanford University. Since 2014 he has been an Assistant Professor of Mechanical Engineering at The University of Wisconsin – Milwaukee (UWM) with Affiliate Professor Appointments in Electrical Engineering and Civil Engineering. He is the founder of the Advanced Structures Laboratory at UWM. His research encompasses physical sensors and active materials with a focus on ultrasonic sensing systems and shape memory alloys for structural health monitoring (SHM) and self-healing materials.

Dr. Salowitz is a member of ASME and IEEE who regularly participating in local student events and national conferences. Dr. Salowitz has been nominated to the ASME technical committee on Structural Health Monitoring (SHM) and plays an active role in the international SHM community as an Associate Editor of the journal Structural Health Monitoring, member of the international program committee of the International Workshop on Structural Health Monitoring, and active participant at the European and Asia/Pacific Workshops on Structural Health Monitoring.

Assistant Professor Nathan Salowitz will present on current structural design and analysis practices in the aerospace industry. These practices are based on analytical analysis, large scale testing, data collection, and inspection. Dr. Salowitz will also present future vision and technology being pursued with the goal of shifting from scheduled maintenance to condition based maintenance.