
Join us in Seattle to participate in a technical workshop and professional education program focused on FHE technologies, enjoy the Museum of Flight, tour Boeing’s commercial jet assembly plant, tour the University of Washington’s Roll-to-Roll center, take in three technical sessions with over 20 speakers and a poster session, and network with fellow attendees.

About the Workshop

The FHE Applications for Aerospace workshop will explore applications, opportunities, and challenges for flexible hybrid electronics in Aerospace and Aviation. The workshop will feature technical presentations on the state of the art, R&D and manufacturing activities, and application needs and requirements. NextFlex Members and Non-Members Welcome.

Agenda:

Session I: FHE for Future Factory

This session will explore both how advanced manufacturing concepts such as in-situ process monitoring can deliver increased autonomy to FHE manufacturing as well as how FHE devices can provide revolutionary capability on the factory floor. Presentations will cover topics such as monitoring worker health status in confined spaces, preventing injury through the use of soft robotics, and advanced optical techniques to increase FHE process yield.

- Dr. Robert Smith, Technical Fellow, Boeing Research & Technology
- Matt Dalton, AFRL
- Wilfried Bair, Vice President of Engineering, NextFlex
- Dr. Nancy Stoffel, Flexible Hybrid Electronics Leader, GE Global Research

Session II: FHE for Next-Generation Space

This session will address in-space manufacturing, planetary requirements, multi-functional additive manufacturing/ printing for satellites, and human monitoring in-space.

- Jesse Tice, Principal Scientist, Northrop Grumman
- Philip Buskohl, Materials Research Scientist, AFRL
- Dr. Christos Christodoulou, Dean at the School of Engineering, University of New Mexico
- Dr. Christopher Williams, Associate Professor and the Electro-Mechanical Corporation Senior Faculty Fellow in the Department of Mechanical Engineering, Virginia Tech
- Erik Handy, Principal Scientist, SII Technologies
- Dr. Max Shulaker, Assistant Professor in Electrical Engineering and Computer Science in the Microsystems Technology Laboratories (MTL), Massachusetts Institute of Technology
- Andrew Rush, CEO and President, Made in Space

Lunch to include Keynote Speakers:

- Dr. Meyya Meyyappan, Chief Scientist for Exploration Technology, NASA’s Ames Research Center

“Printed Electronics: Equipment, Processing and Application Development” Update on NASA’s plasma jet printer and demos with printed gas sensors, supercapacitors, triboelectric power generators, and radiation sensors.

- Beth Paquette, Aerospace Engineer, NASA Goddard Space Flight Center

“Direct Write Printing for Space Applications” Applications NASA has been working on at Goddard. With an emphasis on 3D nonplanar surfaces
Session III: Conformal/Flexible Electronics and Antennas for Aircraft

This session will address FHE aerospace application needs related to: conformal antennas, new FHE capabilities in lightweight UAV’s, UAV autonomy: low-cost aircraft, and commercial aircraft production.

Workshop Organizing Committee

• Nils Bergstrom, Operations Manager, BAE Systems
• Derek Doyle, Agile Manufacturing Lead, Team Tech Advisor, Space Vehicles Directorate, Air Force Research Laboratories
• Dan Gamota, Vice President, Engineering and Technology Services, Jabil
• Scott Johnston, Associate Technical Fellow, Boeing
• Andy Kwas, Director of Engineering and Technology, Northrop Grumman
• Ben Leever, Government CTO, NextFlex and Acting Technical Director, Manufacturing & Industrial Technologies Materials & Manufacturing Directorate, Air Force Research Laboratories
• Scott Miller, Director of Strategic Programs, NextFlex
• Jeff Stuart, Emerging Operational Technology, External Research and Collaboration Lead, Lockheed Martin
• Chris Williams, Associate Professor and the Electro-Mechanical Corporation Senior Faculty Fellow in the Department of Mechanical Engineering, Virginia Tech
• John Williams, Associate Technical Fellow, Boeing

Workshop Additions

• FHE PRO: NextFlex’s Flexible Hybrid Electronic professional education development program
• Welcome Dinner at the Museum of Flight
• Tour of University of Washington’s Roll-to-Roll Center
• Dinner at IVARS in Seattle, WA
• Poster session
• Tour Boeing’s Everett, Washington facility, North America’s only publicly available commercial jet assembly plant to hear supplier management presentations and discussions.

Member Only Events

• The Workshop will include Technical Breakouts where members and government partners will discuss manufacturing and technology for current and future FHE systems.

Registration Fees:

Workshop

• Workshop Member - March 2 to March 31: $300
• Workshop Non-Member - March 2 to March 31: $400
• Workshop Walk-up Member - $350
• Workshop Walk-up Non-Member - $450
• All government partner attendees are free of charge for the Workshop

FHE PRO

• $200 Members; $400 Non-Members; free for Boeing Staff and Government Partners

Tour of Boeing’s Everett, WA Facility

• $26 per person

Dinner at IVARS:

• $50 per person, includes three-course dinner

Hotel Options:

A block of rooms is available at the Hilton Garden Inn Seattle/Renton located at 1801 East Valley Road, Renton, WA 98057, from Sunday, March 31 to Wednesday, April 3 at $169 per night. To make a reservation call the hotel directly at 425-430-1414 and ask for group code NF0331.