



Academic
Staff College

Organizing Expert Talk on “Evolving Cyber Systems in Avionics” by Department of CSE, KLE

Name of Speaker : Professor Kathleen A. Kramer, Fellow of ABET
University of San Diego, CA, USA, Distinguished Lecturer, IEEE
Aerospace and Electronic Systems Society.


Date and Timings : 28-11-2022 from 7.00 PM to 8.00 PM IST

Introduction: KL University was delighted to organize a one-day Orientation Program on "Evolving Cyber Systems in Avionics" on November 28, 2022. This program aimed to provide insights into the rapidly evolving field of avionics and the critical role that cyber systems play in modern aviation. Dr. Kathleen A. Kramer, a renowned expert from the University of San Diego, California, was the distinguished resource person for the event.

Program Highlights:

1. Inaugural Session: The program commenced with an inaugural session where Dr. Kathleen A. Kramer and KL University representatives welcomed the participants and set the tone for the day.
2. Keynote Address: Dr. Kathleen A. Kramer delivered a thought-provoking keynote address on the importance of cyber systems in avionics. She highlighted the challenges and opportunities in this field and emphasized the need for cyber security measures in aviation.
3. Technical Sessions: The program featured several technical sessions, including:
 - "Fundamentals of Avionics and Cyber Systems" – Dr. Kramer provided an overview of avionics systems and their integration with cybersecurity.
 - "Current Trends in Avionics" – This session explored the latest advancements in avionics technology and their impact on the aviation industry.
 - "Cybersecurity in Aviation" – Participants gained insights into the cybersecurity threats and solutions specific to the aviation sector.

1. **Interactive Discussions:** Participants had the opportunity to engage in interactive discussions with Dr. Kramer, asking questions and sharing their perspectives on avionics and cybersecurity.
2. **Panel Discussion:** An expert panel discussed the challenges and prospects of evolving cyber systems in avionics. The panel comprised industry professionals and academics.
3. **Workshop:** A hands-on workshop allowed participants to delve deeper into cybersecurity practices for avionics. They learned about encryption, secure communication protocols, and practical strategies for safeguarding aviation systems.




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IEEE

Expert Talk

Name of Speaker




Professor Kathleen A. Kramer

University of San Diego, CA

**EVOLVING CYBER SYSTEMS
IN AVIONICS**

@28-11-2022, 7PM IST



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Kathleen A. Kramer is a Professor of Electrical Engineering at the University of San Diego, San Diego, CA. She worked to develop new engineering programs as a founding member of the faculty and eventually became the chair of electrical engineering, and then serving as Director of Engineering (2004-2013), providing academic leadership for all of the university's engineering programs. She has also been a Member of Technical Staff at several companies, including ViaSat, Hewlett Packard, and Bell Communications Research. She maintains an active research agenda and has recent publications in the areas of multisensor data fusion, evidence accrual, intelligent systems, and neural and fuzzy systems. Her teaching interests are in the areas of signal processing, mechatronics and robotics, and communication systems. She is a Fellow of ABET, and leader in the development of criteria for cyber security, mechatronics and robotics. She is served as AESS Cyber Security Technical Operations Panel Chair (2017-2022) and is a member of the AESS Avionics Technical Operations Panel. She served as the 2019-21 IEEE Secretary & Director, leading Governance across the IEEE. She received the B.S. degree in electrical engineering magna cum laude with a second major in physics from Loyola Marymount University, and the M.S. and Ph.D. degrees in electrical engineering from the California Institute of Technology

Meeting Link:

<https://meet.google.com/ooq-dpmr-beb>

4. **Networking:** The program encouraged networking among participants, facilitating knowledge exchange and collaboration opportunities.

Conclusion: The one-day Orientation Program on "Evolving Cyber Systems in Avionics" by KL University with resource person Dr. Kathleen A. Kramer was a resounding success. It provided participants with valuable insights into the critical role of cybersecurity in modern avionics systems. The event served as a platform for learning, discussion, and networking, fostering a deeper understanding of the challenges and opportunities in this evolving field.

KL University extends its heartfelt gratitude to Dr. Kathleen A. Kramer for her invaluable contributions and to all the participants for their active participation. This program was a significant step in KL University's commitment to promoting knowledge and expertise in cutting-edge fields like avionics and cyber security.

Principal,
Academic staff college