Commercial Aviation Cyber Security: Current State and Essential Reading

Terry L. Davis
# Table of Contents

Introduction .................................................................................................................................................. vii

**Bridging the Commercial Aircraft Connectivity Gap (2006-21-0037)** ......................... 1
   Brian J. Kirby, Panasonic Avionics Corporation

**Securing Wireless eEnabled Airplane Applications at Airports: Challenges & Approaches (2009-01-3115)** .......................................................................................................................... 7
   Mingyan Li and Casey Fung, Boeing Research & Technology;
   Tim Mitchell, Boeing Commercial Airplanes

**Counterfeiting, Supply Chain Security, and the Cyber Threat; Why Defending Against Counterfeit Electronics is No Longer Enough (2014-01-2125)** ......................................................... 15
   Janice Meraglia and Mitchell Miller, Applied DNA Sciences Inc.

**Novel Approach for Securing Air-Ground Communication (2012-01-2103) ........... 19**
   Aniruddha Karmarkar, Lockheed Martin Corp.

   Biswajit Panja and Lars Wolleschensky, Escrypt Inc.

**Deterministic Ethernet VPX 3U/6U Switches for Open Integrated Architectures (2015-01-2522)** ............................................................................................................................................. 33
   Mirko Jakovljevic and Jan Radke, TTTech Computertechnik AG;
   Perry Rucker, TTTech North America Inc.

**Wireless and Flexible Ice Detection on Aircraft (2015-01-2112) ......................... 41**
   Thomas Schlegl and Michael Moser, Eologix Sensor Technology GmbH;
   Hubert Zangl, Alpen-Adria-Universität Klagenfurt

   Thabet Kacem, Jeronymo Carvalho, Duminda Wijesekera, and Paulo Costa, George Mason University; Márcio Monteiro and Alexandre Barreto, Instituto de Controle do Espaço Aéreo

Alessandro Gardi, Roberto Sabatini, Subramanian Ramasamy, and Matthew Marino, RMIT University; Trevor Kistan, Thales Australia


Qingchuan Shi and Kartik Lakshminarashimhan, University of Connecticut; Christopher Noll and Eelco Scholte, UTC Aerospace Systems; Omer Khan, University of Connecticut

About the Editor ........................................................................................................ 71