IEEE EMC Society Chapter Meeting Announcement
The Baltimore, Central Texas, Los Angeles, Washington DC/Northern Virginia, and Santa Clara EMC Chapters Announce a LIVE Webinar:

Design and Construction of Sensitive Compartmented Information Facilities (SCIF) and Secure Radio Frequency (RF) Facilities: Successfully Navigating the ICD/ICS-705 and NSA 94-106 Standards

Date: **Thursday, September 23, 2021**

Time: 8:00 am PDT **Welcome and Announcements** – *Carl E. Hager IV, Electromagnetic Environmental Effects (E3) Senior Engineer, E3 Test & Evaluation Branch, Naval Surface Warfare Center, Dahlgren, Virginia*

8:05 am **SCIF Design Approach** *by Freddy Padilla, Engineering Director and Principal, with Page and Gordon Bingaman, Design Project Manager with Page, Austin, Texas*

8:40 am **SCIF Shielding Construction Challenges and Misconceptions** *by Joel Kellogg, Director of Healthcare, Industrial and Government Shielding, ETS-Lindgren, Austin, Texas* ***(See speaker and moderator biographies below)***

9:15 am **Question and Answer Session** *moderated by Mr. Hager*

9:30 am **Wrap Up/Final Comments**

Register: Click here to register now on line or enter the following on your browser: https://register.gotowebinar.com/register/274828844492640523

Questions: Janet O'Neil, ETS-Lindgren, cell (425) 443-8106, email j.n.oneil@ieee.org

TECHNICAL PROGRAM

SCIF Design Approach
By Freddy Padilla, Engineering Director and Principal, with Page and Gordon Bingaman, Design Project Manager with Page, Austin, Texas

Abstract: In this presentation, we will discuss the optimal approach to a SCIF project from planning to final approval from the designer's point of view. Topics to be addressed include a review of typical SCIF requirements as well as a SCIF location with a facility. Helpful guidance will be provided on applying local codes to SCIF Design. We will also review a SCIF design from a construction approach – for new and retrofit facilities. This educational presentation will conclude with an in-depth look at the approval process to ensure a successful project outcome that is on schedule and on budget.

SCIF Shielding Construction Challenges and Misconceptions
By Joel Kellogg, Director of Healthcare, Industrial and Government Shielding, ETS-Lindgren, Austin, Texas

Abstract: In this presentation, we will review common approaches to SCIF shielding and some of the related challenges both from a design and construction perspective. We will also delve into some of the common RF shielding misconceptions that occur with SCIF projects. The presentation will include some general design guidance in addition to some clarification between documents and standards commonly used or referenced in SCIF specifications.

HOST AND MODERATOR

Carl E. Hager IV received a B.S. degree in Electrical Engineering from the University of Maryland, College Park, MD, USA, in 2008. Since 2009, he has been an Electrical Engineer with the Electromagnetic Sensor Systems Department, Naval Surface Warfare Center Dahlgren Division, Dahlgren, VA, USA. He currently works as an Electromagnetic Environmental Effects (E3) Senior Engineer within the E3 Test & Evaluation Branch, where he is responsible for leading various Science and Technology (S&T) projects focused on improving current E3 test and measurement techniques through decreasing measurement uncertainty, applying statistical analysis methods, standardizing assessment methodologies, and evaluating the emerging shipboard Electromagnetic Environment (EME). Carl has published over ten peer-reviewed papers with the IEEE EMC Society and received the IEEE EMC Symposium Best EMC Paper Award in 2014 and 2015 for his papers entitled “On Modeling Wireless Radio-Frequency Energy Propagation in Below-Deck Ship Spaces” and “Maximum Received Power Statistics within RF Reflective Enclosures for HERO/EMV Testing”, respectively. As an invited speaker, he has presented in numerous workshops and tutorials. He received the 2016 NSWC Dahlgren Test & Evaluation Award for development of the Electromagnetic Probability-of-Effect Assessment Tool (EMPAT) and eventual incorporation into multiple Military Standards and Handbooks. Carl received the 2020 Naval Warfare Centers Innovation Award for developing and implementing a novel approach that characterizes the likelihood of radio frequency overexposure affecting personnel during helicopter landings on the USS Gerald R. Ford (CVN 78). He has significant experience with Hazards of Electromagnetic Radiation to Ordnance (HERO), Hazards of Electromagnetic Radiation to Personnel (HERP), Electromagnetic Interference (EMI), Complex Cavities, and Reverberation Chambers. Throughout his career as a Department of Defense Navy civilian, he has had SCIF experience working in/around facilities secured for military sensitive information, to include Confidential, Secret and Top Secret classification levels. His current research interests include statistical electromagnetics in applications such as complex cavities and probability-of-effect assessment methodologies specific to applications to electromagnetic compatibility testing, electromagnetic environment characterization, and deployment of Navy systems.

SPEAKER BIOGRAPHIES

Freddy Padilla, PE, ATD, is an Engineering Director and Principal with Page, a multidisciplinary design, architecture, and engineering firm with 600+ talented staff and offices in the U.S. and abroad. With over 24 years of industry experience, Freddy serves as MEP Engineering Director and Principal in Page’s Austin office. Freddy has significant experience designing infrastructure for highly complex projects including secure government facilities, data centers, and industrial facilities. Freddy’s portfolio consists of many projects throughout the world with integrated SCIF environments, including a 158,000 SF mission critical entire SCIF office building for a confidential

government tenant, a U.S. Air Force confidential secure facility under a $1.06B defense contract, and new spacecraft integration and testing facility in San Antonio with highly technical and sensitive areas designed for ICD 705 compliance.

Gordon Bingaman, AIA, is a Design Project Manager with Page, a multidisciplinary design, architecture, and engineering firm with 600+ talented staff and offices in the U.S. and abroad. With over 30 years of experience, Gordon's professional background spans the planning and development of sites, feasibility studies, design, documentation, and construction administration for a wide range of public and private clients. These experiences have honed his technological expertise in building survey, measured drawing production, 3D modeling, CAD documentation and Project Management. Recently Gordon has completed multiple facilities assessments and building modernization studies for historical and iconic buildings. In addition, Gordon has deep experience designing SCIF facilities, and has served as Project Manager for projects ranging from a 55,000 SF SCIF Command Center at Barksdale Air Force Base, to a 9,000 SF secure maintenance facility in Italy for NAVFAC involving SCIF and TEMPEST areas.

Joel Kellogg is the Director of Business Development for Healthcare, Industrial and Government shielding products and services with ETS-Lindgren, based at the company's headquarters in Cedar Park, Texas. He has over 20 years of design, production, and management experience for healthcare, government and institutional projects. Joel's experience includes the development of EMI active cancellation systems for the reduction of electromagnetic interference to MRIs and electron microscopy systems, the development of data acquisition systems for the measurements of EMI, vibrations, and acoustics, and the development of shielding products. Joel is also knowledgeable in many areas of site planning for radiology, laboratory, and industrial equipment including electromagnetic (EMI), radio frequency (RF), and radiation shielding and environmental aspects including vibration, acoustic, and electromagnetic interference requirements. Currently, Joel's focus is advancing the shielding technology of products and services for Healthcare, Industrial, and Government customers along with driving shielding product roadmaps for ETS-Lindgren. He received his Master of Business Administration (MBA) from the Keller Graduate School of Management in 2007 and his Bachelor of Science, Electrical Engineering (BSEE) from the University of Wisconsin – Madison in 1998.