IMAGE 2022



TUESDAY (20 September)

Gold Host

FSI Defense

A FlightSafety International Company

Scott Baughman Business Development

- 0800 OPEN CONFERENCE The IMAGE Society
- 0810 WELCOME & OPENING REMARKS Scott Baughman, FSI Defense
- 0830 FEATURED PRESENTATION [Keynote Address]

ORGANIZATIONAL PRESENTATIONS

- 0900 Scalable Display Technologies
- 0920 FSI Defense
- 0940 3D perception
- 1000 Beverage Break & Exhibits Sponsored by Norxe IMAGE SILVER HOST
- 1020 Norxe
- **1040** Immersive Display Solutions
- 1100 TREALITY SVS

1120 GBvi

- 1140 project:syntropy
- 1200 Luncheon Social & Exhibits **Sponsored by FSI Defense** IMAGE GOLD HOST

SYNTHETIC NATURAL ENVIRONMENTS

Chair: Daniel J. Bicket, Boeing

1300 Realistic 3D Digital Twin generation leveraging satellite and street view imagery Grégoire Geffroy, Presagis

1330 DATABASE WORKSHOP by FSI Defense Ryan Franz

Open Database Standards

- Historic Paradigm Shifts in Database Technology
- Taxonomy of Current Database Formats
- Challenges with Data
- Current Trends in Data Organization
- OGC
 - o 3D Tiles 1.1 Improvements
 - CDB 1.x changes
 - CDB 2.0 proposed changes
- Metaverse
- Roundtable Discussion
- 1500 Beverage Break & Exhibits **Sponsored by 3D perception** IMAGE SILVER HOST

IMAGE GENERATOR TECHNOLOGIES Chair: Tim Woodard, NVIDIA

1520 What is an Image Generator? A Survey of System Architecture and Roles Doug Gill, FSI Defense

- 1550 Roof details detection through the generation of synthetic geo-spatial labeled imagery with DatasetGAN Vincent Rougeau-Moss, Presagis
- 1620 Current Evolutionary Forces on Visual Simulation and Image Generation Doug Gill, FSI Defense

CLOSING REMARKS Scott Baughman, FSI Defense

Conference Reception Dayton Country Club Sponsored by the IMAGE Society

WEDNESDAY (21 September)

Gold Host Scalable Display Technologies

Kevin Amaratunga, PhD VP of Engineering

- 0800 WELCOME & OPENING REMARKS Kevin Amaratunga, Scalable
 - IMAGE GENERATOR TECHNOLOGIES Chair: Tim Woodard, NVIDIA
- 0810 Demystifying the Metaverse for Modeling, Simulation, and Training Tim Woodard, NVIDIA
- 0840 IG TECHNOLOGIES & SYNTHETIC ENVIRONMENT PANEL DISCUSSION

DISPLAY SYSTEMS

Chair: David Emig, FSI Defense

0910 Utility of Faster Pixels; Beyond 120Hz Frame Rate David Emig, FSI Defense

- 0940 Utility of More Pixels; Beyond 4k Resolution David Emig, FSI Defense
- 1010 Beverage Break & Exhibits Sponsored by TREALITY SVS IMAGE SILVER HOST
- 1030 Speckle Characteristics in True Solid-State illumination Technology Projectors Craig Maddock, Norxe
- 1100 Challenges of a Massive, ultra-Precision Visual Display System Christoph Bode, project:syntropy
- 1130 Operational Based Vision Assessment (OBVA) Laboratory Research Update and KC-46 Remote Vision System Research

Eleanor O'Keefe, PhD, Operational Based Vision Assessment Laboratory, AFRL, 711th Human Performance Wing, Airman Systems Directorate (711 HPW/RHBC)

- 1200 Luncheon Social & Exhibits Sponsored by Scalable Display Technologies IMAGE GOLD HOST
- 1300 Perceptual and performance effects of binocular misalignment in an HMD augmented reality simulation Eric Seemiller, PhD, Operational Based Vision Assessment Laboratory, 711th Human Performance Wing, USAF

1330 DISPLAY WORKSHOP

by Scalable Display Technologies Kevin Amaratunga, PhD Tyler Johnson, PhD

Scalable Auto Calibration Tools for Display Alignment and Maintenance

- Design Considerations for Auto Calibration
- Display Calibration Architecture & Workflow
- Color, Luminance & Black Level Correction
- Perspective Correction and Collimation
- Display Evaluation & Maintenance
- Roundtable Discussion
- 1500 Beverage Break & Exhibits Sponsored by Immersive Display Solutions IMAGE SILVER HOST

1520 DISPLAY SYTEMS & VISION SCIENCE PANEL DISCUSSION

1620 CLOSING REMARKS Kevin Amaratunga, PhD Scalable Display Technologies

Adjourn (Conference Ends)

Greet & Meet Exhibitors

Scalable Display Technologies FSI Defense 3D perception Norxe Immersive Display Solutions TREALITY® SVS GBvi project:syntropy