MDE EXPO SPRING 2026

Thursday, April 23, 2026 - Thursday, April 23, 2026

The Inn at Virginia Tech Latham Ballroom 901 Prices Fork Rd Blacksburg, VA 24061

Scientific Program

Track-1: Solitude

CHIP/ HW

S26-01; Data Center Power Conversion

S26-11: Germanium Gate-All-Around (GAA) FET with Ferroelectric Materials for Ultra-Low Power Devices

S26-12: Tunable wavelength Germanium-Tin (GeSn) based lasers for Quantum Technologies

S26-13: GaN FET Based Buck-Boost DC-DC Converter

S26-29: Quantum Dot Laser Diode Process Development

S26-32: Impulse Clock Controller

S26-41: Into the Flow

S26-42: Light as a Guide

Track-2: Duck Pond

ROBOT/DRONE

S26-04: Low-cost smart sensor spoofer on Unmanned Air System

S26-16: Semi-Autonomous Robotic Navigation

S26-18: RPOD Rover Bot

S26-19: RPOD Charging Bot

S26-21: Smart Waste Management

S26-22: Design and Development of a Low-SWaP Imaging System for Space-Based Wildfire Observation

S26-23: Real-Time Digital Event Decoder and Visualization Interface for MCP Detectors

S26-40: Robotic mapping

Track-3: Smithfield

AI/ Software

S26-02: AI for Emergency Power Management

S26-05: On-Premise Audio Transcription & Analysis

S26-17: IT Major Systems Enterprise Architecture Review for Optimization

S26-24: Water Cooling Skid Simulator

S26-25: SCADA System Development for Launch Pad Oversight

S26-34: Cyberattack Detection using AI

S26-35: Simulation of Fault Location, Isolation, and Service Restoration on a Microgrid Distribution System

S26-37: Quantum-Resistant Cryptographic System

Track-4: Drillfield

RF/ FPGA

S26-03: Detection and Mapping of non-ADSB-transmitting Aircraft

S26-10: RF-Based Drone Identification System

S26-14: Framatome Quadrature Inclinometer Design

S26-15: Sensor System for LoRaWAN

S26-27: Eight Element Phased Array for RFSOC

S26-30: Phased Array Radar Using RF-SoC FPGA SDRs

S26-31: Portable Electronic Device Detector

Track-5: Cascades

LIFE SCI

S26-06: FutureHAUS AI: Smart Home System

S26-07: FutureHAUS AI: Power System

S26-08: Low resource Newborn Hearing Screener

S26-09: Low resource Pre-eclampsia Screener

S26-20: Automated Soil Measurement & Amendment Calculation

S26-26: ShredConnect Development

S26-36: Graphic User Interface for Autonomous Aquaculture Controller

S26-38: Solar Powered Offshore Oyster Aquaculture Nursery