

TUESDAY, AUGUST 27

TIME	DRIVE WORLD	DRIVE WORLD	ESC TUTORIAL ROOM 1	ESC TUTORIAL ROOM 2	ESC TUTORIAL ROOM 3	ESC TUTORIAL ROOM 4	ESC TUTORIAL ROOM 5
9:00 - 11:00 am	How V2X Connectivity Could Pave the Way to Level 5 Autonomy - Radovan Mucic, Technical Fellow/Team Lead, Changan US R&D Center	LIDAR: Can it Be Effective in Adverse Weather Conditions?	Implementing ARM Cortex M1 & M3 in FPGAs	Developing Embedded Real-Time Applications with Heterogeneous Multiprocessing Systems	Understanding Secure Connectivity	Understanding Shared Memory	NFC-Connected Phone as a User Interface? There's an App for That! - Charles Lord, Blue Ridge Adv Design
11:00 - 11:15 am	Morning Break						
11:15 - 1:15 pm	Cyber Security in Autonomous Vehicles from a Hacker's Point of View - Steve Rivera, Cyber Security Specialist, Trustwave	Bring Voice Recognition to Self-Driving Cars - Peter Politi, VP & GM of Connected Vehicle Strategy & Business Development	Implementing ARM Cortex M1 & M3 in FPGAs CONTINUED - Adam Taylor, Adiuvo Engineering Training Ltd.	Developing Embedded Real-Time Applications with Heterogeneous Multiprocessing Systems CONTINUED - Sergio Prado & Rodrigo Almeida	Understanding Secure Connectivity CONTINUED - Nick Lethaby, Texas Instruments	Understanding Shared Memory CONTINUED - Greg Davis, Green Hills	NFC-Connected Phone as a User Interface? There's an App for That! CONTINUED - Charles Lord, Blue Ridge Adv Design
1:15 - 2:15 pm	Lunch Break						
2:15 - 3:15 pm	The Decomposition of an Autonomous Vehicle	Privacy Risks & Cyber Security for the Connected Vehicle	Build a Basic AXI Module in Verilog & Connect it to an Embedded Processor - Zach Pfeffer	How to Build a Scalable Infrastructure for Embedded Systems Development	A Hands-On Coding with Embedded Linux Workshop	An Introduction to RTOSs	Embedded Operating Systems Development: From Project to Implementation - Sergio Prado & Rodrigo Almeida
3:15 - 3:30 pm	Afternoon Break						
3:30 - 5:00 pm	The Decomposition of an Autonomous Vehicle, Continued - Phil Magney, VSI Labs	Privacy Risks & Cyber Security for the Connected Vehicle, Continued - Wes Reynolds, Senior Security Specialist, NetSource One	Build a Basic AXI Module in Verilog & Connect it to an Embedded Processor CONTINUED - Zach Pfeffer, Centennial Software Solutions	How to Build a Scalable Infrastructure for Embedded Systems Development CONTINUED - Ari Mahpur - Glenair	A Hands-On Coding with Embedded Linux Workshop CONTINUED - Erik Welsh, Octavo Systems	An Introduction to RTOSs CONTINUED - Jean Labrosse, Silicon Labs	Embedded Operating Systems Development: From Project to Implementation CONTINUED - Sergio Prado & Rodrigo Almeida
5:00 pm	Conference Adjourns						

WEDNESDAY, AUGUST 28

TIME	DRIVE WORLD	DRIVE WORLD	ESC SILICON VALLEY: HARDWARE	ESC SILICON VALLEY: SOFTWARE	ESC SILICON VALLEY: IOT & CONNECTED DEVICES	ESC SILICON VALLEY: FOF & ADVANCED TECHNOLOGIES
	Security and Safety	Sensing Technologies				Focus on Fundamentals
8:00 am - 8:55 am	Secure the Car Before You Connect it - Chuck Brokish, Director of Automotive Business Development, Green Hills	Realizing Autonomy Through Sensors, Simulation & Safety - Tim Wong, NVIDIA	Form-Factor Driven SWaP-C Optimizations for Embedded Realtime Signal Processing Systems - Richard Crisp, Etron Technology America	A lesson in C++ Part 1: Customizing Dynamic Memory Management - Ben Saks, Saks & Associates	Securing the IoT with ARM Trustzone for the Cortex-M - Jacob Beningo, Beningo Embedded Group	Choose Java for Your Next IoT Project - Thomas Mikkelsen, Skelmir LLC
9:00 - 9:45 am	Creating Safe, High-Performance Automotive Applications - Shawn Prestridge, IAR	AI in the Driver's Seat - Dwight Howard, Aptiv	RISC-V Based Linux for Embedded Applications - Rob Oshana, NXP	A lesson in C++ Part 2: Representing Memory-Mapped Hardware - Ben Saks, Saks & Associates	How to Secure Your IoT Project - Shawn Prestridge, IAR	Effective PCB Design: Techniques to Improve Performance - Dan Beeker, NXP
9:45 - 10:45 am	Keynote with Sebastian Thrun, CEO of Kitty Hawk Corporation and Chairman and Co-Founder of Udacity					
10:45 - 11 am	Morning Break					
11:00 - 11:45 am	Panel: Hacking the Autonomous Vehicle - Moderator: Joe Hopper, President, Fracture Labs	Integrated Intelligent Transportation And Key Enablers - Moderator: Dwight Howard - Aptiv	Consumer Robots from Smartphone SoCs - Daniel Casner - Anki	Mars Ate My Spacecraft - Jack Ganssle	Embedded Systems Through the Eyes of a Hacker - Joe Hopper, Fracture Labs	Intro to FPGAs for Microcontroller Experts - Duane Benson, Screaming Circuits
11:45 - 1:15 pm	Lunch Break					
	Connectivity & Infotainment	Autonomous & ADAS				Advanced Tech
1:15 - 2:00 pm	5G Support for Autonomous Ultra-Reliable Low Latency Communications - Anthony Magnan, 5G Solutions Engineer, Verizon	Future Directions: Symbiotic Autonomous Systems and Ethical AI Design - Thomas Coughlin, President, IEEE	RF Embedded System Bringup - Antolin Agatep - Swedcom	How to Select the Right RTOS for Your Application - Jacob Beningo, Beningo Embedded Group	Successful Threat Modeling for Connected Devices - Chris Shore, ARM	Using Artificial Intelligence to Morph a Personal Computer to be a Personalized Computer - Vinesh Sukumar, Director - Strategic Architecture & Planning (AI & ML), Intel
2:05 - 3:00 pm	Building Infotainment Systems for Level 5 Vehicles Using AI	Enhanced Driver Safety With Advanced Vision Systems - Dwight Howard, Aptiv	How to Design Mission Critical FPGA Systems - Adam Taylor, Adiuvo Engineering & Training Ltd.	C/C++ vs. Python: The Rise of Scripting Languages - Peter McLaughlin, IoTika	Designing a Secure & Reliable OTA Implementation - Nick Lethaby, Texas Instruments	A Deep Dive Into Deep Learning - Linley Gwennap, Linley Group
3:00 - 3:15 pm	Afternoon Break					
3:15 - 4:00 pm	CV2X vs. DSRC: The Advantages & Disadvantages	Processors for Advanced Automotive Systems - Mike Demler, Linley Group	Electromagnetic Fields for Normal Folks: Show Me the Pictures and Hold the Equations - Dan Beeker, NXP	A Primer on Linker Scripts and Command Files - George Mock, Texas Instruments	Understanding Bluetooth Mesh Networking - Michael Anderson, The PTR Group	Testing of 5G Enables Devices - Robert Rehammar, Bluetest
4:00 pm	Conference Adjourns					

THURSDAY, AUGUST 29

TIME	DRIVE WORLD	DRIVE WORLD	ESC SILICON VALLEY: HARDWARE	ESC SILICON VALLEY: SOFTWARE	ESC SILICON VALLEY: IOT & CONNECTED DEVICES	ESC SILICON VALLEY: FOF & ADVANCED TECHNOLOGIES
	Security and Safety	Sensing Technologies				Focus on Fundamentals
8:00 am - 8:55 am	Future Directions: Quantum Computing to Accelerate Safety & Efficiency of Autonomous Driving - Jeewika Ranaweera, Oracle	HD Map-Based Lane Keeping - VSI Labs	The Democratization of SIP Integration - Gene Franz, Erik Welsh - Octavo Systems	Hack-Proofing Your C/C++ Code - Greg Davis, Green Hills	Reducing Energy Consumption & Maximizing Battery Life - Matt Liberty, Jetperch LLC	Understanding CAN Bus and Its Applications - Michael Anderson, The PTR Group
9:00 - 9:45 am	Hazards to Functional Safety Requirements: An Agile-Based Approach - Daniel Acetuna, DISTEK Integration	Human Perception AI: The Future of the In-Car Experience - Abdelrahman Mahmoud, Affectiva	An Introduction to RF Design - Mike Schneckner - Rohde & Schwarz	Using a Memory Protection Unit (MPU) with an RTOS - Jean Labrosse, NXP	Guaranteeing Wireless Performance in IoT Devices - Robert Rehammar, Bluetest	Developing Reusable Device Drivers for Microcontrollers - Jacob Beningo, Beningo Embedded Group
9:45 - 10:45 am	Keynote with Elena Adams, Space Systems Engineer, John Hopkins University Applied Physics Lab					
10:45 - 11 am	Morning Break					
11:00 - 11:45 am	Driverless Vehicles: We Will Get There - Safely & Securely - Summer Fowler, Argo AI	Car 2.0: Transportation-as-a-Service - Willard Tu, Xilinx	Power Distribution Made Easy - Dan Beeker, NXP	Machine Learning for Embedded: A System of Software & Hardware Components - Rob Oshana, NXP	Novel Energy-Harvesting Technologies for Energy-Independent IoT Devices - Andrew Kelly, Cactus Semiconductor - a Cirtec Company	Tips and Tricks for Debugging with any Debugger - Greg Davis, Green Hills
11:45 - 1:15 pm	Lunch Break					
	Connectivity & Infotainment	Autonomous & ADAS				Advanced Tech
1:15 - 2:00 pm	Managing Vehicle-to-Everything (V2X) Communications - Aaron Newman, Keysight	Partnerships Will Be More Important Than Ever for Automated Driving - Sam Abuelsamid, Navigant Research	Embedded Sensors for Critical Applications	The Pros & Cons of Using Open-Source Software	Programming Languages and How they Relate to IoT - Andy Carie, Moddable	Introduction to the Robot Operating System (ROS) - Michael Anderson, The PTR Group
2:05 - 3:00 pm	Biggest Challenges of Advanced Infotainment for Autonomous Cars - Guru Nagarajan, Android Auto, Google	The Road to Deployable Autonomy - Robert Dav, ARM	30 Years of ESC: Jack Ganssle & Jacob Beningo Fireside Chat - Plenary Session for ESC only			
3:00 - 3:15 pm	Afternoon Break					
3:15 - 4:00 pm	How Big will the Role of Telematics Be in the Rollout of Autonomous Vehicles? - Evan Engel, Mapping Engineer, Toyota Research Institute	Panel: How to Build an Autonomous Chip - Moderator: Ann Steffora Mutschler, Semiconductor Engineering	Debugging an Embedded System	ARM Cortex-M & RTOSs are Meant for Each Other - Jean Labrosse	AI at the Edge: A Review of Toolsets Available When Building an Edge Device - Srihari and Sai Yamanoor	Blockchain in the Enterprise - Joel Garcia, AllCode
4:00 pm	Conference Adjourns					