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| Time | Session Details |
| 10:00-10:10 | Welcome |
| 10:10-10:50 | RF & Microwave Industry Trends: ​Design Skills You Need To Stay Relevant  The RF/MW industry is undergoing a rapid transformation with the advent of AI/Machine Learning (AI/ML), 5G/6G non-terrestrial networks, and EVs hat require high throughput, low latency wireless transport. This translates to more complex RF digital modulation requiring broad bandwidth at sub-THz frequencies.  That is why Keysight EDA has developed new capabilities to enable RF/MW designers to efficiently tackle the most challenging HW designs, including:  1. 3D Heterogeneous Integration (3DHI) RF Modules assembly with drag-and-drop SmartMount and automated EM-circuit co-simulation of any RF paths through them.  2. Python Application Programming Interface (API) for programmatic control of Keysight ADS to enable AI/ML, 3DHI design flow automation, and 3rd party custom capability integration.  3. Multi-Domain simulation to achieve the ultimate accuracy, including Circuit, EM, Electrothermal, RF System, Numeric DSP, and Artificial Neural Networks trained with measurement or simulated data. |
| 11:00-11:40 | Enabling Next Generation EM simulation with ADS RFPro 2025  As RF and microwave designs continue to increase in complexity, engineers require tools that streamline workflows and enhance simulation accuracy. RFPro 2025 introduces significant advancements in ADS, enabling more efficient design exploration and validation. This presentation highlights key updates to the Generation 2 Momentum and FEM solvers, including new calibration types that extend accuracy at high frequencies, substrate sweep capabilities for rapid material trade-offs, and the ability to reuse simulation results to save time. Additionally, features such as the modal port solver, enhanced visualization of mesh and fields for MDO simulations, FEM interior meshing, and near and far field computations empower designers to better understand and optimize their designs. Explore how these new capabilities simplify the design process, reduce iteration cycles, and improve confidence in achieving performance targets. |
| 11:45-12:25 | Enabling Next Generation Heterogeneous Integrated Design with ADS  The demand for higher functionality, smaller sizes, and higher frequency bands in RF and microwave design is driving the need for complex module integration. This paper discusses the challenges and solutions in designing high-frequency applications such as 5G and 6G, automotive radars, and wireless networking. Keysight's Advanced Design System (ADS) introduces new features in RFPro 3DEM simulation and Smart Mount assembly to address these challenges. These tools enhance simulation accuracy and simplify the integration of different technologies, enabling fast and accurate EM analysis. The paper highlights how Heterogeneous Integration, combined with these advancements, offers an efficient approach to meeting the stringent requirements of size, weight, power, and cost. The integration of circuit and 3D EM simulation in ADS facilitates first-pass design success, making it an ideal platform for next-generation heterogeneous integrated module design. |
| 12:30- 1:00 | Transforming Chaos Into Clarity With Keysight Design Data and IP Management  Ready to revolutionize your design workflow? Discover how a unified data and IP management system can transform the way you work. Imagine having all your design data at your fingertips, perfectly organized and easily accessible, empowering you to create innovative designs with ease. From initial requirements to final tapeout, Keysight's Engineering Lifecycle Management (ELM) acts as your single source of truth, streamlining the entire design process and boosting knowledge sharing.s |
| 1:10-1:50 | Using SystemVue to enhance your 5G NTN and 6G Satellite Link Design  Design and explore next-generation communications links with standard-specific modulated signals and satellite communications channel modeling. Start with an initial line up and Optimize your design in the presence of RF and dynamic channel impairments throughout the satellite product design lifecycle. |
| 2:00-2:40 | Re-imagining RF Design Using ADS Python APIs and AI/ML  As we strive for greater engineering productivity, faster time to market, and optimized decision making from a sea of data – Artificial Intelligence (AI) and Machine Learning (ML) provide exciting new tools to accelerate the engineering lifecycle. This paper explores how Python APIs in Keysight EDA can transform your workflows, for efficient measurements, design, enterprise, and AI applications, including Machine Learning. Learn from Keysight customers and industry researchers as they share their successes in application vignettes that will inspire new possibilities for your RF design workflows. |