3-Day Hands on Workshop – RF System design / simulation using SystemVue

Date: To be announced, once we have minimum participants
Time Duration: 9:00am to 5:00pm
Location: To Be decided as per customer request

Course Description

This 3-Day workshop addresses the following key areas: Practical hands on "**RF system design and simulation using SystemVue**"

The course covers introduction to system level verification for **RADAR and Cellular systems**, RF transceiver design and simulation, Base band system design and simulation including Matlab script, Verilog etc., complete System design and simulation including baseband and RF sections.

About SystemVue ESL Software

SystemVue is a focused electronic design automation (EDA) environment for electronic system-level (ESL) design. It enables system architects and algorithm developers to innovate the physical layer (PHY) of wireless and aerospace/defense communications systems and provides unique value to RF, DSP, and FPGA/ASIC implementers. As a dedicated platform for ESL design and signal processing realization, SystemVue replaces general-purpose digital, analog, and math environments. SystemVue "speaks RF", cuts PHY development and verification time in half, and connects to your mainstream EDA flow.
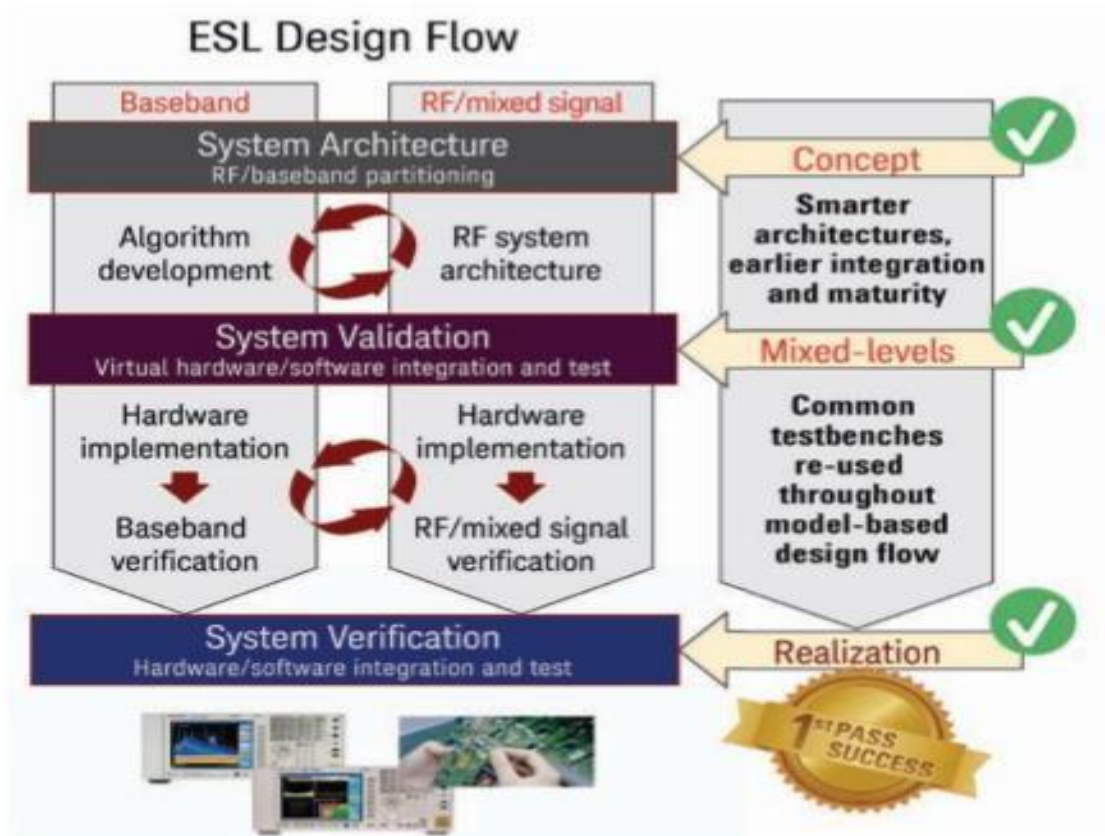
Key Benefits of SystemVue

• Best-in-class RF fidelity among today's baseband/PHY environments – allows baseband designers to virtualize the RF and eliminate excess margin

• Superior integration with Test accelerates real-world maturity and streamlines your model-based design flow, from Architectures to Verification

• Priced for networked workgroups to maximize design re-use and capitalize on Baseband & RF synergies

Laptop with SystemVue software installed will be required for each participant for hands on session. Temporary licenses will be issued in advance to each participant

Who should attend?

Practicing Engineers / Scientists interested in pursuing RF, Microwave, and Wireless product design Students pursuing Graduation, Masters / PhD in RF & Microwave, Communication systems

By taking this course, you will better understand

• Fundamental Concepts of RF system design
• Understand Practical challenges and learn how to design / deliver RF systems
• Design and simulation using EDA tools "SystemVue" from Keysight Technologies

Learning Objectives

• Best practices in using SystemVue for RF system design and simulation – Advanced Techniques
• Receiver system design and simulation – with example
• Transmitter system design and simulation – with example

Day-1 Topics	Time
RF System design (Spur analysis, cascaded analysis of Up Converter/Down converter, effect of Phase noise and non-linearity on microwave system performance, measurement techniques. Simulation covering Up Converter/Down converter analysis.)	900-1030
Tea Break	1030-1100
RF System design (Analog and digital modulation schemes, Architectures, Multiple Access methods, TDD and FDD schemes, System-level specifications , transmitter and receiver parameters, analog and digital functional blocks)	1100-1230
Lunch Break	1230-1330
RF System design (Critical block-level specifications and impairments (e.g. noise, P1dB, IIP3, IIP2, gain, bandwidth, phase noise and spurs), system level performance metrics (e.g. BER, EVM, modulation type, sensitivity and selectivity))	1330-1500
Tea Break	1500-1530
RF System design - Hands on Workshop	1530-1700

Day-2 Topics	Time
RF System design - Hands on Workshop	900-1030
Tea Break	1030-1100
RF System design - Hands on Workshop	1100-1230
Lunch Break	1230-1330
RF System design - Hands on Workshop	1330-1500
Tea Break	1500-1530
RF System design - Hands on Workshop	1530-1700

Day-3 Topics	Time
RF System design - Hands on Workshop	900-1030
Tea Break	1030-1100
RF System design - Hands on Workshop	1100-1230
Lunch Break	1230-1330
RF System design - Hands on Workshop	1330-1500

Tea Break	1500-1530
Wrap Up	1530-1700

Speaker

Bhupinder Singh received his Master's Degree in Microwave System Design from IIT   Kanpur, Kanpur India. He has extensive experience in product design and development both in India and abroad. In his 25 years of experience he has designed, developed and tested numerous RF system / subsystem used by Govt, Military, and Cellular, VSAT industry. He is currently Director-Technical at RF Specialities. RF Specialities is a leading supplier of customised RF Systems/ subsystems to Govt., military and commercial market. Previously he worked as a scientist at Aeronautical Development Establishment, Bangalore, from 1991-2001. Later, he was leading R&D team at HFCL, DMC-STRATEX in NZ, Blackbay in NZ, Technical Head-Telecom R&D at Astra MWP, Eminent Technology, Italy. He is an advanced user of Simulation tools like ADS, System Vue, EM Pro, MWO, ALTIUM and ACAD. He is skilled at using Spectrum Analyzer, NW Analyzer, Vector Signal Analyzers, signal generators.

RF Specialities (RFS) is one of the leading companies in the design, development, servicing and maintenance of RF Equipment in India. Boasting of a state-of-the-art RF laboratory and backed with experienced & well-trained manpower, it provides unique and cost-effective solutions in the shortest turn-around time for the satellite, broadcasting, telecom and military industry.

How to Register?

Please fill out registration form and email the form to support@finetuningrf.com

Registration Form

"3-Day Hands on Workshop – RF System design / simulation using SystemVue at Bangalore

1. Name of the Participant:
   (In BLOCK Letters only)

2. Company Name:

3. Contact Phone number:

4. Email id:

Optional information

5. Years of work Experience:

6. Briefly describe your work experience:

7. Areas of interest:

8. Topics of interest:

9. Simulation Tools familiar with: