2-Day Hands on Workshop – X-band MMIC Design – PA and LNA

Date: To be announced
Time Duration: 9:00am to 5:00pm
Location: Bangalore

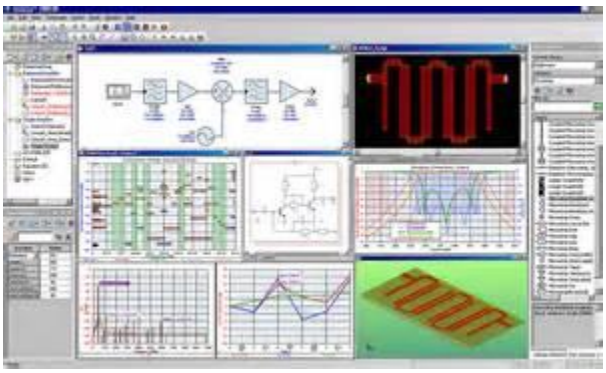
Course Description

This 2-Day workshop addresses the following key areas: Practical hands on how to "**Design X-band MMIC LNA and PA with simulation and analysis using ADS and PDKs**", covering LNA using GaAs pHEMT process and Power Amplifier using GaN HEMT process.

Advanced Design System is the world's leading electronic design automation software for RF, microwave, and high speed digital applications. In a powerful and easy-to-use interface, ADS pioneers the most innovative and commercially successful technologies, such as X-parameters* and 3D EM simulators, used by leading companies in the wireless communication & networking and aerospace & defense industries. For WiMAX™, LTE, multi-gigabit per second data links, radar, & satellite applications, ADS provides full, standards-based design and verification with Wireless Libraries and circuit-system-EM co-simulation in an integrated platform.

Key Benefits of ADS

• Complete, integrated set of fast, accurate and easy-to-use system, circuit & EM simulators enable first-pass design success in a complete desktop flow
• Application-specific Design Guides encapsulate years of expertise in an easy-to-use interface
• ADS is supported exclusively or months earlier than others by leading industry and foundry partners



Laptop with ADS software installed will be required for hands on session.
Temporary ADS licenses will be provided to all
PDKs will be installed in each computer during the training session

Finetuning Academy LLP

A-407, Shriram Srishti Apartments, SSA Road, Anand Nagar, Bangalore – 560 032, India
+91 80 42197333, 9343510805, 70222 77805
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Who should attend?

Engineers / Scientists interested in pursuing RF and Microwave MMIC design, familiarity with RF Fundamentals and ADS is a pre-requisite

Students pursuing Masters / PhD in RF & Microwave, Communication systems

By taking this course, you will better understand

- LNA using ADS, actual GaAs pHEMT process PDK with example
- Power Amplifier using ADS, actual GaN HEMT process PDK with example

Learning Objectives

- Best practices in using ADS for MMIC design and simulation – Advanced Techniques

- LNA – with GaAs pHEMT process, design, simulation, EM analysis through co-simulation (Target Specification and application, Design approach, Device Size and Bias selection, Load-pull simulation to select terminating impedances, circuit Schematic, Layout, EM Simulation, Layout, EM Simulation and Layout optimization, Final Simulated Performance, Summary)

- PA – with GaN HEMT technology, design, simulation, EM analysis through co-simulation (Target Specification and application, Design approach, Device Size and Bias selection, Load-pull simulation to select terminating impedances, circuit Schematic, Layout, EM Simulation, Layout, EM Simulation and Layout optimization, Final Simulated Performance, Summary)

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Workshop Sessions & Schedule (To be updated with actual session topic)

Topics, Day-1	Time
Introduction to Foundry Process	900-1030
Tea Break	1030-1045
LNA design and simulation (ADS Example)	1045-1300
Lunch Break	1300-1345
LNA design and simulation (ADS Example)	1345-1500
Tea Break	1500-1515
LNA design and simulation (ADS Example)	1515-1630
Interactive Session	1630-1700
Topics, Day-2	**Time**
Introduction to Foundry Process	900-1030
Tea Break	1030-1045
PA design and simulation (ADS Example)	1045-1300
Lunch Break	1300-1345
PA design and simulation (ADS Example)	1345-1500
Tea Break	1500-1515
PA design and simulation (ADS Example)	1515-1630
Interactive Session	1630-1700

Speaker

Bhupinder Singh received his Master's Degree in Microwave System Design from IIT- 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 and Finetuning Academy LLP.

Previously he worked as a scientist at DRDO-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, SystemVue, EM Pro, MWO-AWR, ALTIUM and ACAD. He is skilled at using Spectrum Analyzer, NW Analyzer, Vector Signal Analyzers, signal generators.

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Finetuning Academy LLP is focused in RF circuit, system and MMIC design training services. Delivered advanced and basic trainings using RF design software tools, by Industry Experts with over 25+ years of Experience from ISRO, BEL, DRDO.

RF Specialities (RFS) is one of the leading companies in the design, development, servicing and maintenance of RF Equipment in India. RF Specialities is a leading supplier of customized RF Systems/ subsystems to Govt., military and commercial market. Boasting of a state-of-the-art RF laboratory at Bangalore 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

"**2-Day Hands on Workshop – X-band MMIC Design and Simulation using ADS** 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:

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8. Topics of interest:

9. Simulation Tools familiar with: