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## 3-Day Hands on Workshop - RF Circuit Design – PA and LNA for Telecom / Defence / Industrial Market Applications

Date: To be announced, once we have minimum participants  
Time Duration: 9:00am to 5:00pm  
Location: Bangalore

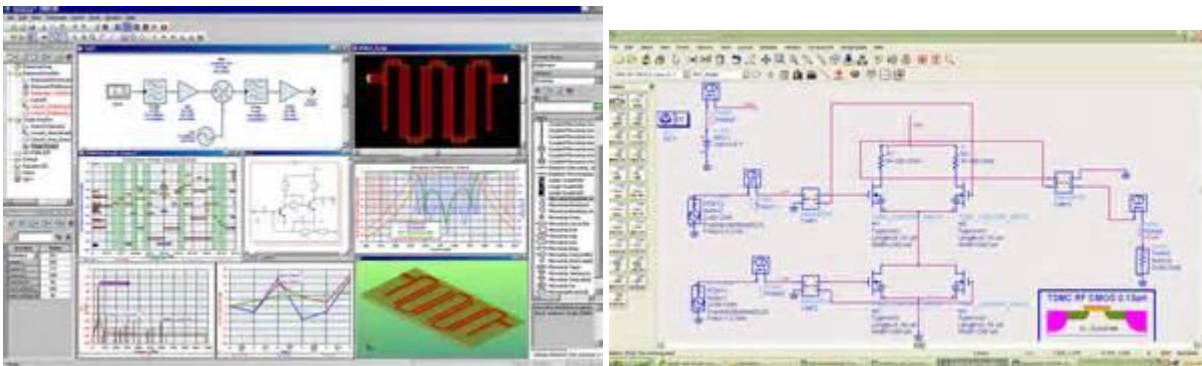
### Course Description

This 3-Day workshop addresses the following key areas: Practical hands on how to “**RF circuit design simulation using ADS**”, Linear circuit design covering LNA and Filter, Non-linear circuit design covering Power Amplifier. PA design will use High power LDMOS / GaN devices in CW / Pulse mode operation and High efficiency PA.

**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

### Finetuning Academy

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## Who should attend?

RF Engineers / Scientists interested in pursuing RF design, familiarity with RF Fundamentals is a pre-requisite  
Students pursuing Masters / PhD in RF & Microwave, Communication systems

## By taking this course, you will better understand

- Linear circuit design – LNA using ADS with example
- Non-linear circuit design – High Power Amplifier using ADS

## Learning Objectives

- Best practices in using ADS for RF design and simulation – Advanced Techniques
- LNA & Filter – design, simulation, EM analysis through co-simulation
- PA – with LDMOS / GaN technology, Non-Linear device Models, Pulsed / CW mode operation

## Workshop Sessions & Schedule

Topics, Day-1	Time
Linear Circuit design - Small Signal Active devices	900-1030
Tea Break	1030-1045
LNA design and simulation (ADS Example) - I	1045-1300
Lunch Break	1300-1345
LNA design and simulation (ADS Example) - II	1345-1500
Tea Break	1500-1515
LNA design and simulation (ADS Example) - III	1515-1630
Interactive Session	1630-1700
Topics, Day-2	Time
Linear Circuit design - Passive Components	900-1030
Tea Break	1030-1045
Filter design and simulation (ADS Example)	1045-1300
Lunch Break	1300-1345
Non-Linear Circuit design - Power Amplifier	1345-1500
Tea Break	1500-1515
PA design using LDMOS (Simulation example) - I	1515-1630
Interactive Session	1630-1700
Topics, Day-3	Time
PA design using LDMOS (Simulation example) - II	900-1030
Tea Break	1030-1045
PA design using LDMOS (Simulation example) - III	1045-1300
Lunch Break	1300-1345
PA design using GaN (Simulation example) - IV	1345-1500

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<b>Tea Break</b>	<b>1500-1515</b>
<b>PA design using GaN (Simulation example) - V</b>	<b>1515-1630</b>
<b>Wrap Up</b>	<b>1630-1700</b>

## 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.

## Fee payable

**Rupees 15,000 per person** (including Service Tax)

Please note that we plan to conduct this program only if there are minimum number of participants enrol.

### Electronic Funds Transfer

A/c Name Finetuning Academy

A/c Number 020405500429

Account Type Current

Bank Name ICICI BANK LTD

Branch R T NAGAR

IFSC Code ICIC0000204

Bank Address 5, P & T Colony, R T Nagar Main Road, BANGALORE, KARNATAKA-560032

Note: Please send us the funds transfer details to [support@finetuningrf.com](mailto:support@finetuningrf.com)

Or

Cheque / DD payable at Bangalore in favour of "**Finetuning Academy**" to

Kind attention: Nandakumar.S, A-407, Shriram Srishti, SSA Road, Anand Nagar, and Bangalore-560 032. Karnataka. Phone 080-4219 7333

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## How to Register?

Please fill out registration form and email the form to [support@finetuningrf.com](mailto:support@finetuningrf.com)

### Registration Form

**“3-Day Hands on Workshop - RF Circuit 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:
8. Topics of interest:
9. Simulation Tools familiar with:

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