## ABOUT ADVANCED DESIGN SYSTEM (ADS)

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.

Synthesis tools
– LineCalc
– Integrated Genesys synthesis tools

Manufacturing output
– Layout
– 3D layout viewer
– ADS Desktop Design Rule Checker (DRC)
– ADS Desktop Layout Versus Schematic (LVS)
– ODB++, Gerber, GDSII, IGES output and translators
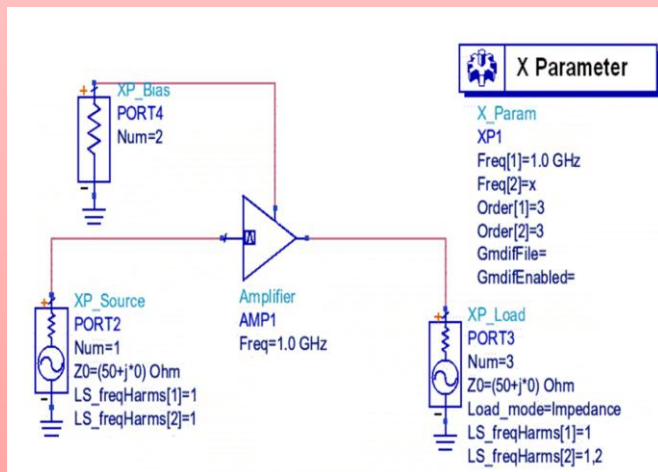
ABOUT KEYSIGHT CENTRE OF EXCELLENCE

Keysight Technologies, one of the pioneering companies in the world having a strong expertise in wireless communication technologies had collaborated with ECE department to establish the Centre of Excellence. This is intended to benefit students who dream to pursue their research in the field of advanced wireless communication and RF system design. This would serve as a platform for students and aspirants to pursue their interest in the field of RF design.

Objectives of this Centre of Excellence are

- To provide knowledge for a new generation of RF engineers.
- To offer excellent training and education for students in Advanced Communication and RF System Design
- To provide technology transfer and consultant services for industry and government

ABOUT KEYSIGHT TECHNOLOGIES

Keysight Technologies, or Keysight, is a US company that manufactures test and measurement equipment and software. Keysight's products include hardware and software for benchtop, modular, and field instruments. Instruments include oscilloscopes, multimeters, logic analyzers, signal generators, spectrum analyzers, vector network analyzers, atomic force microscopes (AFM), automated optical inspection, automated X-ray inspection (5DX), in-circuit testers, power supplies and handheld tools.

In addition, it produces electronic design automation (EDA) softwares (EEsof division). It mainly serves the telecommunications, aerospace/defense, industrial, computer, and semiconductor industries.

"RF System Design Using ADS"
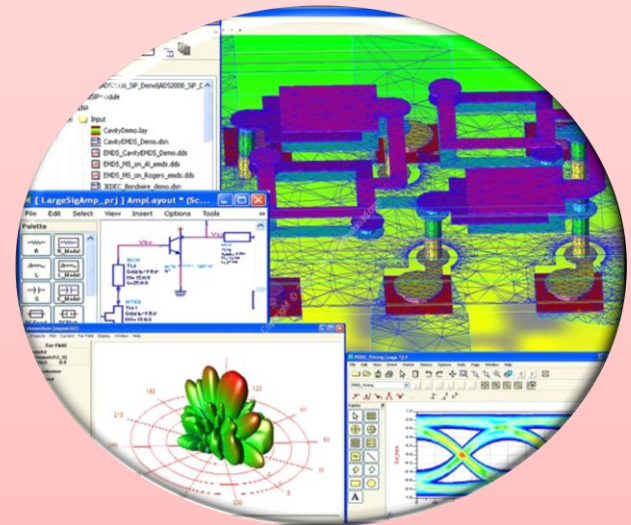
Organized by

MCET- KEYSIGHT
"Centre for RF Communication Systems"

Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution Accredited by NAAC)

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Website: www.drmcet.ac.in

COURSE CONTENT   Hrs: 30

- ADS Fundamentals
- S Parameter Analysis
- Microwave Filter Design
- Tuning and Optimization of Design
- Planar Electromagnetic Simulation
- Finite Element Method (FEM) Simulation
- Design of Impedance Matching Networks
- Microstrip patch antenna Design
- Patch Antenna Array Design
- Discrete and Microstrip Coupler Design
- Microstrip and CPW Power Divider Design
- Design Guide, Transient, Momentum Simulation
- DC & AC Simulations and Circuit Modeling
- Harmonic Balance Simulation
- ASK Receiver Design
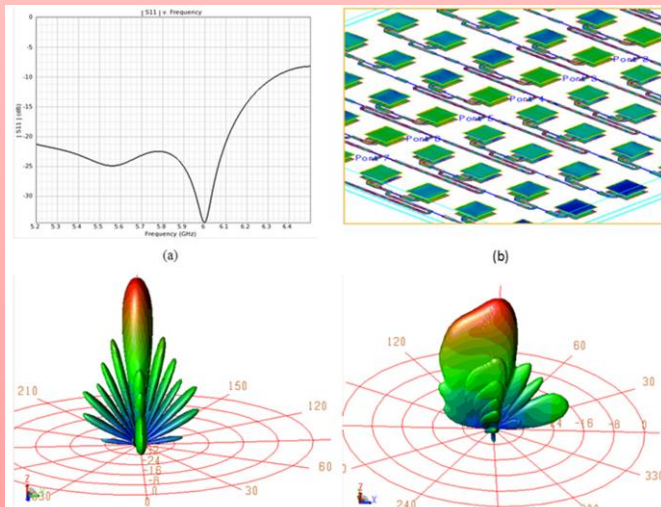
ABOUT COURSE:

This course on RF System design is intends to provide comprehensive theoretical backgrounds of RF Circuits and hands on experience of Design, Optimization, Simulation and measurement of some basic RF components. The participants should expect to learn ADS (schematic, momentum and optimization), Multiport characterization and Measurement using Vector Network analyzer. In addition to the ADS Software participants will be introduced to various other RF circuit design kits like Circulators, Isolators and etc.

Intended Participants:

This course will be extremely useful for faculty members, research scholars, and Post graduate and under graduate students (interested in communication and RF system design). Industry personnel from RF/Microwave related domains willing to learn ADS in short span of time are also encouraged to register.

Key Features

- In-depth knowledge in transmission line theory
- Hands on Experience in ADS
- Skill set to deal with RF circuits.
- Experience with Microstrip design techniques
- Ability to design RF and Microwave building blocks
- Experience in Vector network Analyzer measurement.

REGISTRATION DETAILS:

Registration Fee	Amount **
Students (Internal/External)	Rs. 1500/-
Research Scholars & Working Professionals	Rs. 2000/-

**Demand Draft for the registration fee drawn in favour of "Principal, Dr.MCET, Pollachi" payable at Pollachi.

Dr. MAHALINGAM COLLEGE OF ENGINEERING AND TECHNOLOGY
(An Autonomous Institution Accredited by NAAC)

RF System Design Using ADS

REGISTRATION FORM

Name:

Age:

Qualification:

Organization:

Address for Communication:
(with telephone no. & E-mail ID)

DD No:

Date:

Bank:

Signature of the Candidate:
Date:

ADDRESS FOR COMMUNICATION

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