

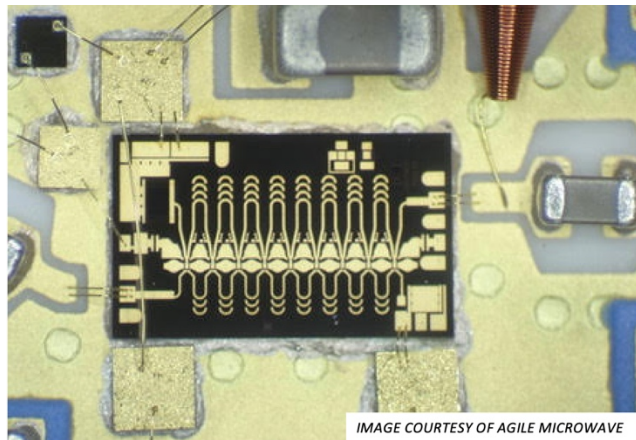
Virtual Training Course Outline

RF and Microwave Course for Engineers

(3 Sessions)

*This virtual training course is divided into three sessions,
2 hours each day with a 5 min break on the hour.*

Instructor: Chandra Gupta, PhD, MBA, chandra.gupta@cgc-rf.com



Are you an engineer looking to expand your knowledge and skills in RF and Microwave technologies? Join this RF and Microwave Practical Course designed specifically for engineers like you and hone in your skills. Gain practical theory, get insights, learn practical techniques, and unlock the potential of RF technologies in across various applications. Learn and gain knowledge and proficiency in working with RF and Microwave components and design tools. Develop real-world skills that can be immediately applied to your projects and daily work. This course is designed to provide you with a practical understanding of RF and Microwave technologies and design concepts. By the end of the course, you will have developed the skills and knowledge necessary to excel in RF engineering roles and contribute to the advancement of RF and Microwave technologies.

Who Should Attend - Electrical Engineers, Electronics Engineers, Communication Engineers, RF Engineers, Microwave Engineers and Engineering Students.

Course Outline

I. Introduction to RF and Microwave Engineering

- Overview of RF and Microwave frequencies and applications
- Basics of electromagnetic waves and propagation

II. RF and Microwave Circuit Design

- Transmission line and waveguide structures
- Couplers and power dividers/combiners
- Filter designs – low pass, high pass and band pass
- Amplifier designs
- Other high-frequency components

IV. Antenna Design and Analysis

- Principles of antenna theory and radiation patterns
- Types of antennas and their applications

V. RF Measurements and Testing

- Basics of RF measurements and test equipment
- Techniques for measuring RF power, impedance, and noise figure

VI. Signal Integrity and EMC/EMI Considerations

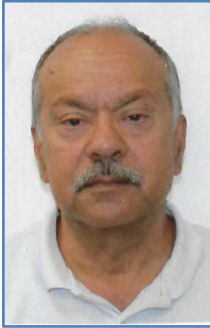
- Signal integrity challenges in high-frequency systems
- Techniques for minimizing signal degradation and distortion

VII. Operational considerations

- Device physics
- Operational conditions
- Building in reliability

Please note that the course content may be adjusted to cater to the specific needs and interests of the participants. The modules mentioned above provide a comprehensive outline of the topics covered in the course.

INSTRUCTOR BIO



Chandra Gupta, PhD, MBA has over thirty years of extensive experience in the design, development, engineering, and production of RF, microwave and millimeter wave components and systems. He has taken several single and multi- function components and integrated microwave assemblies from design concept, engineering development, proto typing and through production. Chandra was the Engineering Manager at CPI (Communications and Power Industries) where he was responsible for development of GaN solid state power amplifiers and at Analog Devices/Hittite Corp where he designed, developed, and produced custom solutions comprising RF (radio frequency) and digital functions.

He holds a Ph.D. (EE), BS(EE) along with a post graduate certification in wireless communications technology from Stevens Institute of Technology. Chandra is also an active member of IEEE and strong supporter of iMAPS (New England). He's held several local chapter positions on the executive committee, Antenna & Propagation Society, Microwave Theory and Techniques Chapter, and Aerospace and Electronic Systems. Co-Chair of Technical Committee (RF) iMAPS. He will guide you through the material, share the expertise, and provide valuable tips, troubleshooting techniques, and best practices.