

Workshop Details

This workshop has been design for electrical engineering graduates and does not assume any prerequisite knowledge other than basic mathematics and basic Maxwell's Equations. Topics covered in this workshop are

Day1

1.5 hour

- a) Concept of Power Amplification
- b) Classes of Power Amplifiers (PA) and comparison
- c) PA performance parameters and constraints

1.5 hour

- d) Class E Amplifier Design, Performance Constraints and Trade-offs
- e) Exercise 1: Class E Harmonic Balance Simulations using ideal components

1 hour

- f) Exercise 2: Use pre-designed PA to study Small Signal Characteristics

1 hour lunch break

1 hour

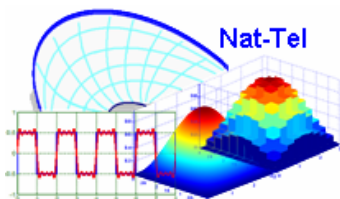
- g) Exercise 3: Use pre-designed PA to study Single Tone based Large Signal Characteristics

1 hour

- h) Exercise 4: Use pre-designed PA to study Two Tone based Large Signal Characteristics

1 hour

- i) Device selection for Power Amplifier-electrical, thermal, frequency and breakdown constraints



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Power Amplifier Design

Day2

1 hour

- j) Load Pull and Matching

3 hour

- k) Exercise 5: Single Stage PA Design and matching using Load Pull

1 hour lunch break

1 hour

- l) Thermal Constraints on PA Design and Layout

1 hour

- m) Exercise 6: Driver and Power Stage sizing and biasing

1 hour

- n) Losses in a Power Amplifier