

Sneak Circuit Analysis (SCA) Training

2 Course Syllabus & Objectives

This section describes our approach to Sneak Circuit Analysis Training.

2.1. Course objectives:

- 2.1.1. The student will understand why Sneak Circuit Analysis is required.
- 2.1.2. The student will know how to prepare for and conduct an SCA.
- 2.1.3. The student will know how to use the SCA module in the LCABLE, Mentor Graphics environment.
- 2.1.4. The student will know how to generate and SCA Report

2.2. Course Syllabus:

2.2.1. Introduction & Background

- 2.2.1.1. Historical Background
- 2.2.1.2. Sneak Circuit Example
- 2.2.1.3. Conventional SCA Techniques
- 2.2.1.4. SoHaR's SCA Technique

2.2.2. Sneak Conditions

- 2.2.2.1. Sneak Paths
- 2.2.2.2. Sneak Timing
- 2.2.2.3. Sneak Indicators
- 2.2.2.4. Sneak Labels

2.2.3. Schematic

- 2.2.3.1. Project
- 2.2.3.2. Overall schematic
- 2.2.3.3. Digital sheets
- 2.2.3.4. Analog sheets
- 2.2.3.5. Editing
- 2.2.3.6. Identification of drawing errors

2.2.4. Steps of the Methodology

2.2.5. Potential Design Concerns

2.2.6. Tools Used for the Analysis

2.2.7. SNEAK PATH ANALYZER

- 2.2.7.1. Guidelines for Sneak Circuit Analysis (SCA)
- 2.2.7.2. Installation
- 2.2.7.3. Using the Unix terminal
- 2.2.7.4. Viewpoint

- 2.2.7.5. Cable sheet
- 2.2.7.6. Logical Cable properties used by the Sneak Path Analyzer
- 2.2.7.7. Printing a sheet
- 2.2.7.8. Running Sneak Circuit Analysis
- 2.2.7.9. More on Sneak Circuit Analysis
- 2.2.7.10. Design Architect
- 2.2.7.11. Design Manager
- 2.2.7.12. SCA net types
- 2.2.7.13. Model.txt file: a closer look

2.2.8. Power-To-Power Tie analysis

2.2.9. Software Sneak “circuit” – The ECT methodology

A group exercise will be held at the end of each day