3.8.2020

APRIL

Wednesday 16

WK 16 • 106-259

ECE 469 DESIGN FOR TESTABILITY

TAUGHT BY

- prof. ganesh V bhutekar
- renia inc.

COURSE TOPICS

1. introduction
   - testing of electronic gadgets
   - various types of tests
   - VLSI design flow
   - role of modeling and simulation in testing

2. faults and fault modeling
   - detection of faults
   - fault simulation & its applications
   - functional testing
   - exhaustive & non-exhaustive testing

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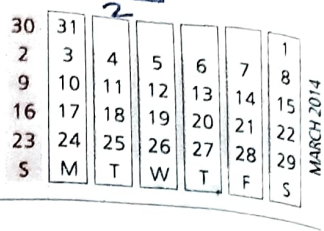

- automatic testing procedures

3. design for testability
   - various features are to be incorporated to carry out testing from input & output pins.
- scan architecture
- board-level testing
- signature analysis & testing

4. built in self test (BIST)
   - BIST concepts
   - test pattern generation
   - BIST architectures

5. testing of analog & mixed signal ICs.
   - testing of system on chip

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TEXTBOOKS

1. digital systems, testing, and testable design. (2001)
2. VLSI testing: digital and mixed analog / digital techniques. (1998)
3. essentials of electronic testing for digital & mixed signal VLSI circuits. (2000).
4. VLSI test principles & architectures: design for testability.
5. VLSI testing.
6. electronic design automation.
7. System-on-chip test architectures: nanometer design for testability.
8. testing of digital systems.