



KING FAHD UNIVERSITY OF PETROLEUM & MINERALS
ELECTRICAL ENGINEERING DEPARTMENT
EE533 – Microwave Integrated Circuits
FIRST SEMESTER 2010-2011 (Term 101)

| Instructor | Office | Sec | Phone | E-mail | Office Hours |
|------------------|------------|-----|-------|---------------------|---|
| Dr. Oualid Hammi | B59/0012-5 | 1 | 7394 | ohammi@kfupm.edu.sa | SM: 2:00PM-3:00PM UT: 9:00AM-10:00AM |

References:

- Rogers J. W. M. and Plett C., *Radio Frequency Integrated Circuit Design*, second edition, Artech House, 2010.
- Pozar D. M., *Microwave Engineering*, third edition, John Wiley and Sons Inc., 2005.
- Gonzalez G., *Microwave Transistor Amplifiers Analysis and Design*, second edition, Prentice Hall, 1997.
- Research papers from IEEExplore and other references.
- Application notes from Agilent Technologies.

Topics:

1. Introduction to microwave circuits and technologies
2. Performance evaluation in microwave circuits: noise, linearity and signals
3. Introduction to microwave simulation tools
4. 2-port network analysis
5. Microstrip transmission lines and matching networks
6. Microwave linear amplifiers design
7. Microwave low noise amplifiers design
8. Microwave antennas
9. Microwave oscillators
10. Microwave filters
11. Microwave passive circuits

Grading:

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|----------------------|---|
| Class work (15 %): | 3 Assignments. |
| One major exam (20%) | 20% |
| Project (25%): | Project grade includes report and presentation. |
| Final exam (40%): | Comprehensive. |

Important Points to Remember:

1. **Major exams:** Major exams will be held on December 21st, 2010.
2. **Project:** A design project should lead to the development of a circuit prototype. At least a realistic layout should be submitted. Ideally, a prototype should be fabricated and its performance measured.
3. **Attendance:** According to the university regulations, any student that exceeds 20% of the scheduled class meeting without an official excuse will receive a grade of DN in the course.
4. **Official excuses:** All official excuses must be submitted to the instructor no later than one week of the date of the official excuse. The instructor may not accept late excuses.