Lab in microelectronics

Summary

Study of some useful circuits mainly in telecommunication systems.

Content

A-D and D-A Conversion
Modulation & Demodulation
PLL
Initiation to HF Electronics
SSB Transmitter or Receiver

Learning Prerequisites

Recommended courses
Circuits et Systèmes Electronique II
Techniques HF & VHF

Learning Outcomes

By the end of the course, the student must be able to:

• Choose a type of circuit suit the needs
• Dimension the circuit
• Optimize a circuit in case of conflicting requirements
• Transcribe results in a written report

Transversal skills

• Assess progress against the plan, and adapt the plan as appropriate.
• Communicate effectively, being understood, including across different languages and cultures.

Teaching methods

Practical Lab Work in team of two students

Expected student activities
Calculate components values
Detailed Analysis of Performances
Writing a report of results

Assessment methods
Evaluation of the report

Supervision
Office hours Yes
Assistants No
Forum No

Resources
Bibliography
Course Circuits et Systèmes Electronique II
Course Techniques HF & VHF

Ressources en bibliothèque
• Circuits et Systèmes Electronique II / Declerq
• Techniques HF & VHF / Enz

Moodle Link
• http://moodle.epfl.ch/course/view.php?id=7501