

## Unit 5. Operational amplifiers (opamps) and OTAs

The outline of this unit is as follows:

- Basic concepts: opamp vs OTA, stages and requirements.
- Compensation techniques: Miller compensation, feedforward compensation.
- Two-stage architecture design.
- Cascode structures: first stage, second stage, folded-cascode structure.
- Symmetric CMOS OTA.
- Output stages: how to implement a low output resistance.
- CMFB circuits.
- Examples.