

Department of Electrical Engineering

Associate Professor

DEE
UNINOVA - Centre of Technology and Systems



Fernando Coito

Associate Professor at
DEE/FCT-UNL since
1998

1996 - PhD in Elec. Eng.
1990 - MSc in Elec. Eng.
1986 - Degree in Elec. Eng.

Objectives

To develop the knowledge and usage of advanced design tools. The main areas of activity are:

- Optimal decision for design and control
- Fault tolerant control
- Human machine interaction
- System modelling

Methodology

The research activity relies on the combined use of:

- Linear and non-linear system dynamics modelling and simulation
- Optimal predictive control
- Adaptive and switched supervised control
- Particle Swarm Optimization based methods for multi-objective optimization
- Fractional order systems analysis

Expected Results

Recent published papers:

- LC-VCO Design Challenges in the Nano-Era
- Switched Unfalsified Multicontroller Nonparametric Model Based Design
- Design of adaptive sliding window PI-PCA controller
- Low order models for human controller-Mouse interface
- Variability-Aware Optimiz. of RF Integrated Inductors in Nanometer-Scale
- A Technology-Aware Optimization of RF Integrated Inductors
- PSO-Based Design of RF Integrated Inductor
- Optimization-Based Design of Nano-CMOS LC-VCOs
- Improving Operator Performance through the Use of a Multivariable Human-Machine Control Strategy

Funding: