

Alexia Papadopoulou

Education:

- **May 2021 : M.Sc. in Microelectronics from the School of Electrical and Computer Engineering, Technical University of Crete (ECE/TUC)**
 - Master Thesis: “Design of Micropower Operational Transconductance Amplifiers for High Total Ionizing Dose (TID) Effects and Aspects of Implementation of a Dedicated 65 nm CMOS TID-Process Design Kit”
- **October 2016 : Diploma in Electronic and Computer Engineering from the School of Electrical and Computer Engineering, Technical University of Crete (ECE/TUC)**
 - Diploma Thesis: “Design of a 5GHz Integrated Radio Frequency Power Amplifier in 90nm CMOS Technology”

Work/Research experience:

- **December 2019-April 2020: R&D project for external industrial partner** titled “Noise characterization on LV MOSTs in EM 0.11um CMOS process with embedded FLASH”
 - Scholarship: “Research in OTA design with emphasis in Low Frequency Noise (LFN)”
- **December 2017- December 2019: R&D project for European Organization for Nuclear Research (CERN)** titled “Compact Modeling of High Total Ionizing Dose Effects in 65nm CMOS”
 - CMOS 65nm commercial foundry PDK Expansion
 - Developed model integration (STD & EG layout MOSFETS for different TID and temperature conditions)
 - Schematic symbols creation with SKILL callback controlled properties
 - Circuit Design dedicated for Model Testing (Inverters, Ring Oscillators, OTAs)
- **January 2018- January 2019 : M.Sc. Scholarship sponsored by external industrial partner** titled “RF Integrated Circuit Design in advanced CMOS technology”
 - Research on Design principals of mmWave Stacked Power Amplifiers
- **June 2018 – November 2018 : Contribution to R&D Project for external industrial partner**
 - HV-LD-MOSFET model validation using dedicated circuit benchmarking (i.e. Bootstrapped Switch, Buck- Boost Converter)
- **October 2016- October 2020 : Contribution to supervision of Undergraduate Diploma work**
 - Tool for Optimized Design of Integrated RF CMOS Low Noise Amplifiers
 - Low Power Design of Operational Transconductance Amplifiers (OTA) in Two Bulk CMOS Technology Nodes
 - Design of a CMOS Amplifier for Low Power, Low Noise Bio-signals

- **October 2016-February 2021: Laboratory Assistant in ECE/TUC courses**
 - Electronics II: Co-supervised laboratory work of ~200 students (Bench experiments, Course tests, Exercise sessions)
 - Analog CMOS Design: Co-supervised the work of ~70 students (Course projects, Course tests, Exercise sessions)
- **February 2017- April 2017: Contribution to establishing an H2020 Research Proposal**
 - Research in the creation mechanisms of phase noise/jitter in VCOs and ROs (Ring oscillators), namely flicker noise and stress-induced effects (HCI, BTI)
- **December 2016-March 2017: R&D project for external industrial partner** titled “EKV3.0 MOST modeling for 12V HVFETS” Tasks “12V NMOST EKV3.0, 12V PMOST EKV3.0”
 - Scholarship: “Research in RF CMOS transceiver Design”

Software Skills and Competences:

- Administrative duties (Software and PDK installation- maintenance, licensing setup and administration etc.) from 2016 to present , for Cadence and Keysight.
- Experienced user of industrial grade circuit design software tools:
 - ➔ Virtuoso Analog Design Environment by Cadence
 - ➔ Advanced Design System (ADS) by Keysight
 - ➔ OrCAD Capture by Cadence
 - ➔ Keysight’s ICCAP software simulation setup and interaction with third party simulators (Cadence Spectre)
- Experienced user in open source circuit design software tools:
 - ➔ Quite Universal Circuit Simulator (QUCS)
- Good knowledge of mathematical tools, MATLAB and Mathematica
- Good knowledge of programming languages:
 - ➔ JAVA
 - ➔ C
 - ➔ Cadence Ocean (i.e. automated execution of multiple simulations using Cadence Spectre)
 - ➔ SKILL (i.e. Callback functions for symbol instance parameters)
- Experience in Hardware Description Languages, VHDL and Verilog-A
- Experienced user of LaTeX software system for document preparation

Languages:

- English:
 - ➔ Certificate of Proficiency in English (University of Michigan)
 - ➔ First Certificate in English (University of Cambridge)
- French:
 - ➔ Diplôme d'études en langue française (DEL F A5, DEL F A6)
 - Diplôme d'études en langue française (DEL F A1, DEL F A2, DEL F A3, DEL F A4)