



Anca Mihaela Drăgan (Vasile)

Date of birth: [REDACTED] | Gender: Female | Nationality: Romanian

 Other:

 Email address: [REDACTED]

 Home: Bucharest, Bucharest, Romania

WORK EXPERIENCE

Design engineer

ON Semiconductor

19/09/2016 – Current

 Bucuresti, Romania

Main activities:

- Designing schematic circuit blocks for Digital Temperature Sensors with Digital Serial Interface and EEPROM memory (digital buffers, autozero amplifier, bandgap reference) and Analog Temperature Sensors with positive and negative slope (bandgap, amplifiers, trim)
- Digital simulations at circuit blocks and fullchip level for Digital Temperature Sensor with Digital Interface and DDR5, Bus Expander, Reset Controller, digital trim with EEPROM cells
- Analog simulations for analog core of the thermal sensor - bandgap, regulators, amplifiers, AD converters, oscillators
- Mixed Signal simulations for analog core of temp. sensor with digital filter
- IP transfer in 0.18um CMOS EEPROM technology (improved digital buffers & autozeroed amplifier)

Academic work:

- Attendance and presentation several years at International Semiconductor Conference CAS - Integrated Circuit section
- Several publications at journal articles based on integrated circuits
- Documenting the designed digital buffer as the master's thesis
- Preparing the PhD thesis based on the designed temperature sensors

Patents:

- Digital output buffer for fast digital serial interface
- Autozero amplifier for reducing output voltage drift over time in a digital temperature sensor

Tools:

- Virtuoso Schematic - Cadence
- Simulations in HSPICE, ELDO, SPECTRE, AMS, SYMPHONY

Intern

ON Semiconductor

07/2015 – 09/2015

 Bucuresti, Romania

Main activity:

- Designing schematic and simulations for circuit blocks of an Adjustable Charge Pump (H bridge, oscillator, voltage reference, comparator, level shifter)

Academic work:

- Documenting the designed charge pump as the bachelor's thesis

Tools:

- Pyxis Schematic - Mentor Graphics
- Simulations in ELDO
- Layout in Pyxis Layout - Mentor

EDUCATION AND TRAINING

"Faculty of Electronics, Telecommunications and Information Tehnology" Bucharest

PhD in Electronic Engineering

2018 – Current

Thesis: Integrated Circuits for Low Power Temperature Sensors

- The ongoing project investigates the digital temperature sensors by its performances
- The main blocks for designing the sensor are studied, while its limitations are taken into account
- Several improved architectures are proposed, which there are validated by simulation and experimental results

Faculty of Electronics, Telecommunications and Information Tehology

Master's Degree

2016 – 2018

"Faculty of Electronics, Telecommunications and Information Tehnology" Bucharest, University Polite

Bachelor's Degree

01/10/2012 – 06/06/2016

Level in EQF: **EQF level 8**

National College I. C. Brătianu

High School Diploma

15/09/2008 – 15/06/2012

Level in EQF: **EQF level 7**

Advanced knowledge in Mathematics and Physics Science

PUBLICATIONS

A Digital Improvement—Trimming a Digital Temperature Sensor with EEPROM Reprogrammable Fuses

2021 | <https://www.mdpi.com/1424-8220/21/5/1700>

A Reprogrammable Fuse with EECells for trimming a Temperature Sensor

2020 | <https://ieeexplore.ieee.org/abstract/document/9268008>

A Fast Response Output Buffer for an I2C High Speed Interface

2019 | <https://ieeexplore.ieee.org/abstract/document/8924012>

An Improved I/O Pin for Serial Communication Interfaces

2019 |

https://www.researchgate.net/publication/333747052_An_Improved_IO_Pin_for_Serial_Communication_Interfaces

A high performance mixed-voltage digital output buffer

2018 | <https://ieeexplore.ieee.org/abstract/document/8539840>

Charge retention of a Floating gate Transistor for a Reset Controller

2018 | <http://www.romjist.ro/full-texts/paper579.pdf>

A matter of isolation—A reset controller using Deep N-Well and floating gate technologies

2017 | <https://ieeexplore.ieee.org/abstract/document/8101230>

US20210305957A1 - Auto-zero amplifier for reducing output voltage drift over time

2021 | <https://patents.google.com/patent/US20210305957A1/en>

US10707872B1 - Digital buffer circuit

2020 |

<https://patentimages.storage.googleapis.com/a4/4e/bc/c8504fe0d01619/US10707872.pdf>

LANGUAGE SKILLS

Mother tongue(s)

Romanian

Other language(s)

English

Listening

C1

Reading

C1

Spoken interaction

C1

Spoken production

C1

Writing

C1

French

Listening

B2

Reading

B2

Spoken interaction



B2

Spoken production



B2

Writing



B2

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