

# AMÉRICO DIAS, MSC

ANALOG IC DESIGNER | +351 938 675 407 | [americo.dias@gmail.com](mailto:americo.dias@gmail.com) | <https://s.dias.pt/linkedin> | Porto area, Portugal

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## PROFESSIONAL SUMMARY

Over sixteen years of experience in Analog IC Design, specializing in circuit development, testing, and optimization. Proven ability to lead teams and deliver innovative, high-performance projects, driving efficiency and results. Expertise in problem-solving, advanced circuit analysis, and process improvement to meet global project demands.

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## PROFESSIONAL EXPERIENCE

### ANALOG IC DESIGN ENGINEER / IC DESIGN MANAGER | Porto, Portugal | 2021 - Present

#### *Nanopower Semiconductor*

A company specializing in low-power microelectronics for IoT.

- Build a 7-member engineering team from scratch, ensuring the recruitment of skilled professionals and establishing a strong foundation for successful project delivery.
- Streamline project lifecycles by optimizing staffing and task allocation, resulting in consistently met deadlines and enhanced team productivity.
- Collaborate with the CEO, CTO, and stakeholders to align technological developments with market demands, ensuring product specifications meet business needs.
- Coordinate joint projects with universities and research institutions to foster innovation and knowledge sharing, strengthening academic collaborations.
- Design analog blocks for low-power applications, addressing tight power constraints and achieving operational efficiency.

### SENIOR ANALOG ASIC DESIGNER | Roskilde, Denmark | 2018 - 2021

#### *Knowles Corporation*

Leading provider of advanced audio and precision device solutions for diverse industries.

- Optimized a high-precision DAC by porting it from 180nm to 130nm, addressing challenges in accuracy and power consumption, and delivering improved performance and efficiency.
- Led the layout design of the sigma-delta ADC, coordinating efforts across a multidisciplinary team and ensuring timely completion of critical sub-blocks.
- Designed a high-precision differential comparator, overcoming calibration challenges to enable accurate auto-calibration and ensure operational reliability.

### SENIOR ANALOG IC DESIGN ENGINEER | Copenhagen, Denmark | 2017 - 2018

#### *Sigma Designs (Silicon Labs Denmark)*

Provider of SoC solutions for consumer products, enabling smart home and IoT technologies.

- Developed a high-PSRR 120mA LDO in 40nm TSMC process, addressing noise challenges and improving power supply performance for sub-GHz PA applications.
- Diagnosed and resolved critical oscillator stability issues by combining lab measurements with PEX simulations, ensuring reliable performance.
- Created a Delta-Sigma modulator model in SystemC-AMS, achieving simulation speeds 100x faster than traditional macro-models without sacrificing precision.

### SENIOR ANALOG DESIGN ENGINEER | Stavanger, Norway | 2016 - 2017

#### *Emerson Automation Solutions (Norway)*

A global technology company providing innovative solutions for industrial and commercial automation.

- Modelled electromagnetic propagation for feasibility studies, enabling the development of innovative downhole products for industrial applications.
- Designed analog circuits for fault detection along transmission lines, improving reliability and diagnostic accuracy in challenging environments.

### ANALOG IC DESIGN ENGINEER | Porto, Portugal | 2013 - 2016

#### *SiliconGate*

A specialized provider of power management IP cores for ASIC/SoC and integration and verification services.

- Designed analog blocks for power management IPs, including topology selection, simulation, and physical layout, ensuring performance optimization and compliance with design constraints.
- Conducted stability analysis and worst-case scenarios to enhance reliability and operational efficiency in power management circuits.

## **PHYSICAL IC DESIGN ENGINEER** | Porto, Portugal | 2011 - 2012

*Synopsys*

A global leader in silicon design and verification tools.

- Delivered full-cycle physical design for high-performance PHYs, optimizing timing, power, and area from RTL to GDSII.

## **RESEARCHER** | Porto, Portugal | 2009 - 2010

*INESC Porto*

A leading R&D institute focused on innovation in science and technology.

- Developed an AHRS prototype using MEMS and mixed-signal microelectronics, enhancing aerospace application capabilities.

## **COUNTRY SALES REPRESENTATIVE** | Porto, Portugal | 2007 - 2008

*Venco Electrónica and RC Microelectronica*

Distributor of electronic components and solutions.

- Established the company's market presence in Portugal from scratch, building a solid foundation for future growth.
- Exceeded annual sales objectives with a significant margin, securing key accounts and fostering strong customer relationships.

## **HARDWARE TECHNICIAN & DEVELOPER** | Porto, Portugal | 2001 - 2007

*Corsisa Electrónica*

A company specializing in industrial, consumer, and optoelectronic solutions.

- Designed and implemented hardware/firmware solutions while ensuring production quality control for industrial applications.

## **EDUCATION**

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### **EXECUTIVE MBA** | Porto, Portugal / Warsaw, Poland | 2026

*Porto Business School and Kozminski University (double degree)*

### **PH.D. ELECTRICAL AND COMPUTER ENGINEERING (SUSPENDED)** | Porto, Portugal | 2011

*Faculdade de Engenharia do Porto – University of Porto*

- First-year GPA: 16/20; research focused on bi-directional transceiver for biomedical implants.

### **M.SC. ELECTRICAL AND COMPUTER ENGINEERING** | Porto, Portugal | 2010

*Faculdade de Engenharia do Porto – University of Porto*

- Master's Thesis: Developed UWB transmitter for biomedical implants (Grade: 19/20).
- Microelectronics Students' Group ( $\mu$ SG): Co-founded to foster IC design innovation, winning the 2009 Cadence EMEA Design Contest.

## **LANGUAGES**

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**Portuguese** Native, **English** C1, **Spanish** C2

## **TECHNICAL SKILLS**

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Analog IC Design, Digital IC Design, IC Layout, Power Management Design, Mixed-Signal Circuit Design, Electronics Simulation, Low-Power Circuit Design, Laboratory Testing and Debugging, Embedded Systems, Signal Processing, Programming (Python, C, C++), CAD Tools (Cadence Virtuoso, Spectre, ADE, Calibre).

## **MANAGEMENT SKILLS**

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Project Management, Strategic Planning, Team Leadership & Talent Development, Technology Roadmap Planning, Cross-Functional Collaboration, Innovation & R&D Management, Financial Analysis & Cost Optimization, Risk Assessment & Mitigation, Agile & Lean Methodologies, Business Development & Market Strategy, Stakeholder Influence & Negotiation, Entrepreneurial Thinking & Venture Strategy.

## **OTHER SKILLS**

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Problem-Solving, Adaptability, Effective Communication, Collaboration, Creativity, Attention to Detail, Decision-Making, Conflict Resolution, Leadership, Emotional Intelligence, Time Management.