CHUKWUFUMNANYA O. OGBOGU

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EDUCATION

Washington State University   *Jan 2021 - Dec 2025*
Ph.D. in Electrical Engineering & Computer Science
Advisor: Prof. Partha P. Pande.

Obafemi Awolowo University   *Sep 2014 - Sep 2019*
B.S. in Electronic & Electrial Engineering
Thesis: *A 0.55mW, 87dB Two-stage Low-Offset Operational Amplifier.*
Member of IEEE
Ranked in top 5% of class

EXPERIENCE

Washington State University   *Oct 2020 - Present*
Graduate Research Assistant (Remote).   *Pullman, USA*
· Investigating computation-oriented fault-tolerance schemes for RRAM computing systems.
· Experimental evaluation of ReRAM based Hardware to achieve high accuracy CNN training.
· Performing Noise and SAF analysis on PytorX (DNN pytorch framework).

KPMG Nigeria   *Jan 2020 - Oct 2020*
Intern, Forensic Analyst   *Lagos, Nigeria*
· Performed digital evidence recovery using EnCase and FTK software packages.
· Responsible for due diligence appraisals for members of a client's Board of Directors.
· Participated in forensic audit procedures for suspected fraud cases.

Total Exploration & Production Nigeria   *Sep 2017 - Feb 2018*
Egina FPSO Intern   *Lagos, Nigeria*
· Installed and commissioned Electrical equipment and instruments on FPSO modules.
· Performed markups for Piping and Instrumentation diagrams.
· Involved in troubleshooting of electrical distribution issues aboard FPSO.
· Interfaced and worked with other departments during commissioning of some production systems.

Obafemi Awolowo University   *April 2017 - Jun 2017*
Undergraduate Research Intern, Dept. of Electronic & Electrical Engineering.   *Ile-Ife, Nigeria*
· Designed Schematic and Layout of CMOS Digital Logic Circuits.
· Performed Verification and Validation of Physical Layouts using Electric-VLSI EDA Package.

RELEVANT COURSEWORK

Obafemi Awolowo University

· Probability & Stochastic Processes, Computation Structures, VLSI design, Microelectronic Devices and Circuits, Mathematical Methods, Nanoelectonics, Semiconductor Devices.

PROJECTS

A 0.55mW, 87dB Two-stage Low-Offset Operational Amplifier   Jul 2018 - Jul 2019
· Implemented design in 2.5 micron 2P2M CMOS technology (CNM 25).
· Designed schematic and physical layout of circuit using open-source EDA Software (GLADE by Peardrop Design Systems).
· Simulated and Optimized circuit for gain, area and quiescent power using SPICE-OPUS.
· Performed LVS and 3D parasitics extraction using Gemini and FastCap programs respectively.

A 10 MHz optical receiver   Mar 2017
· Produced a topological high-level design outlining circuit elements for the input, gain, decoding logic & output stages.
· Completed design based on hand calculations, and performed simulations using SPICE.
· Optimized circuit for power consumption, thus achieving a consumption of only 7.0 mW.

ECG Signal Acquisition and Monitoring   Jul 2016 - Nov 2016
· Built an Analog Front End Circuit for acquisition of ECG signal.
· Interfaced ECG signals with LabVIEW signal processing and feature extraction using NI MyDAQ.
· Applied wavelet transform for extraction of R-peaks.
· Used rule based algorithms for detection of Q, P and S components.

Control of an Inverted Pendulum   Jan 2017 - Jun 2017
· Performed system analysis and representation using state-space equations (MATLAB).
· Implemented PID control on ATmega328 micro-controller.

Autonomous 2WD Robot   Feb 2016
· Built vehicle chassis, connected hardware modules together.
· Wrote program for vehicular control in C programming language.
· Poster presentation of work at OAU IEEE Annual Student Conference.

TECHNICAL STRENGTHS

Circuit Design & Analysis Tools	SPICE, VHDL, Verilog, GLADE.
Programming Skills	Python, C, MATLAB.
Others	LaTeX.

SCHOLARSHIP AWARDS AND GRANTS

IEEE Solid State Circuit Society Conference Student travel grant award	Dec 2018
Murli T. Chellaram Foundation Scholarship	Aug 2017
Dean's Honor roll First and Second year	Jan 2016
Etisalat NG Merit Scholarship Award	Jan 2016
MTN-NG Science and Technology Foundation Scholarship	Dec 2015
Total E&P National Merit Award Scholarship	Sep 2015

LEADERSHIP

IEEE Robotics & Automation Society OAU Student Branch Chair Apr 2017 - Mar 2018
· Delivered a technical presentation on the topic: "Microrobotics".
· Organized seminars on technical topics.

CONFERENCES AND WEBINARS ATTENDED

IEEE ESSCIRC/ESSDERC, Krakow, Poland.   Sep. 2019
· 49th & 45th ESSCIRC/ESSDERC (European Solid-State Circuits / European Solid-State Device Research Conference).
IEEE SSCS Webinar   Jul. 2019
· Adaptive and Resilient Circuits for Improving Processor Performance, Energy Efficiency, and Yield.

EXTRA-CIRRUCULAR ACTIVITIES

Solving puzzles, IEEE SSCS Student membership, Playing the guitar.