

Open positions for Research Engineers, PhD Students, Post-docs and designers from industry @ Green IC group (Green Resilient Energy-Efficient Nanoscale Integrated Circuits)

WHO → The Green IC group keeps expanding, and create opportunities for top and extremely motivated students, post-docs and talented engineers from industry, who are excited about being part of our research group as Research Engineers, PhD students, Research Fellows and innovative designers, starting in 2024. Some extra positions are available for Research Engineers who strive to make an impact through **cutting-edge research**, and later commercialization in **start-ups** that are being incubated here at NUS. Other prestigious scholarships (NGS) are also available for prospective PhD students from top schools and very high GPA. For admission as PhD students, preference will be given to those having a Master's degree (although exceptionally talented students with Bachelor degree might be considered).

WHY → Candidate's talent needs to be fueled by a deep and strong passion for innovation/excellence, and strive to make an **impact** onto people's lives through technology. Admitted researchers will have opportunities to carry out leading-edge research in an environment nurturing the development of solid foundations (think) and project-based collaborative learning (build). The demonstration of innovative ideas is supported with **world-class** equipment, industry-grade EDA tools, computing resources, and intense cross-disciplinary collaboration. Ideas will be demonstrated in cutting-edge technologies (down to 7 nm FinFET, 22nm FD-SOI), and will be involved in intense collaboration with leading institutions and industry worldwide.

WHAT → The Green IC group focuses on the following energy-centric research thrusts:

- **untethering on-chip (super)human senses** from sight to hearing and touch via silicon systems with nearly-perpetual operation (analog, processing, power management, wireless comms, systems). Applications include smart cameras, wakeword/speech detection, in-textile systems and others.
- **widely energy- and power-scalable VLSI circuits and systems** for dramatic improvement in energy efficiency (mobile, wearables) and peak power for always-on purely-harvested systems down to nWs
- enable ubiquitous data sensemaking via innovative ultra-lightweight approaches to embed **machine learning on self-powered chips and in-memory computing**, tackling the unaddressed challenge of retaining accuracy while fitting the energy and area requirements of single-chip systems at the edge
- enable a new breed of highly innovative solutions for **hardware security** of silicon chips, from security primitives to intelligent on-chip sensors for intrusion detection and on-demand counteraction
- make **new green & sustainable silicon systems** a reality to make our planet both smarter and greener.

WHERE → The Green IC group is a world-leading research group at the ECE department of the National University of Singapore (NUS). In 2023, NUS is ranked first in Asia and 8th in the world (QS World ranking). NUS is located in Singapore, geographic and technology focal point in Asia with a very strong semiconductor ecosystem, fast-growing economy and high-quality life. Qualified applicants can contact Prof. Alioto via email (malioto@ieee.org), attaching the information in the Green IC group website (<http://www.green-ic.org/open-positions>).

Stay tuned with our stream of silicon innovation via our social media channels (QR codes below).



**GREEN IC - Changing the world.
One big idea at a time.**