

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

The Green IC group is further expanding, creating 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, Ph.D. students, Post-docs and cutting-edge designers, starting in 2019-2020. Some extra positions are available for Research Engineers who strive to make an impact through cutting-edge research, and prospective commercialization in start-ups that are being incubated here at NUS. Other prestigious scholarships (NGS) are available for prospective PhD students from top schools and very high GPA. For admission as Ph.D. students, preference will be given to those having a Master's degree (exceptionally talented students with Bachelor degree can also apply).

Candidate's talent should be complemented by a very strong passion for innovation/excellence and desire to make an **impact** onto people's lives through technology. Admitted researchers will have opportunities to carry out leading-edge research in an environment that nurtures the development of solid foundations (think) and project-based collaborative learning (build). The implementation of innovative ideas is supported with **world-class** equipment, computing resources, and intense cross-disciplinary collaboration. Admitted researchers will work on new ideas and build integrated circuits in cutting-edge technologies down to 14 nanometers, and will be involved into intense collaboration with leading institutions in academia and industry (UCBerkeley, UMich, EPFL, Intel, STM, Mediatek, ...).

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

- **untethering all human senses**, from sight to hearing to smell, and enable truly distributed sensing via innovative energy-autonomous wireless systems with nearly perpetual operation (e.g., ultra-low power analog, processing, power management, algorithms for embedded systems). Applications include smart cameras, smart cities, smart buildings, audio cognition, and others
- **widely energy-scalable VLSI circuits and systems** for >10X improvement in energy efficiency for mobile and wearable applications (processors, memories, specialized hardware)
- enable ubiquitous data sensemaking via innovative ultra-lightweight approaches to embed **machine learning on chip**, tackling the unaddressed challenge of retaining excellent accuracy of deep learning (or other) while fitting the typical energy and area requirements of single-chip systems
- enable a new breed of highly innovative solutions for **hardware security** of silicon chips
- create a new generation of intelligent and connected systems in FDSOI technologies (a brand new **FDSOI research center** is being started, in collaboration with leading industrial players).

The Green IC group is a world-renowned research group at the ECE department of the National University of Singapore (NUS). ECE-NUS is regularly ranked top-10 worldwide (e.g., QS World). NUS is located in Singapore, geographic and technology focal point in Asia, with a very strong semiconductor ecosystem and fast-growing economy.

Qualified applicants can contact Prof. Alioto using email (malioto@ieee.org), following the guidelines in the Green IC group website (<http://www.green-ic.org/open-positions>).

