

Message from the Director

September 2006

Professor Kamal Alameh



COMPS' research has been recognised worldwide after the demonstration of many MicroPhotonic systems, including Opto-VLSI processors, reconfigurable optical add/drop multiplexers for dynamic optical networks, integrated photonic structure for microelectronic/photonic integration, high-speed optical correlators for header recognition in packet switched networks, and nano-engineered photonic bandgap structures for tunable integrated photonics.

We, at COMPS, are researching and developing innovative MicroPhotonic devices to create platforms that can be employed in Telecom, Health, Agriculture, Energy, and Security. Research efforts are centred around five technology pillars namely, Opto-VLSI, laser and photodetector arrays, optical substrates, ultra-high-speed electronic circuits and devices, and lightwave testing. In addition, COMPS is pursuing the migration of MicroPhotonics into NanoPhotonics, and recently, our interesting results on nano-engineered photonic crystal structures have been acknowledged worldwide and published in high-impact international journals.

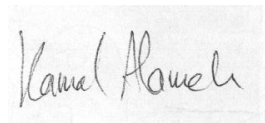
COMPS' partners, Cambridge University-UK, ULM University-Germany, TIMA-France, and Technion-Israel, have made significant contributions to the research programs and our collaboration with them has been fruitful. In addition, our international network has been consolidated by signing MoUs with two of the best Korean institutions, namely, Gwangju Institute of Science and Technology (GIST) and Seoul National University. Six of COMPS researchers visited international institutions for close collaboration and access to laser, photodetector, Micro/Nano-Photonic, and integrated optics fabrication facilities, and many innovations in MicroPhotonics have been created through this international network.

COMPS' researchers have been participating in the supervision of undergraduates, graduates and postdoctoral fellows, and our MicroPhotonic facility is enabling students to generate world-first results and publish them in high-impact journals, and actively participate in national and international conferences.

COMPS' technology transfer program has also been very successful; a PhD student visited the Institute of Optics and Electronics, China, for three weeks and brought promising Opto-VLSI-based Adaptive Optics Technology to COMPS.

I was delighted to report COMPS' achievements to the Board of Governors and the WA government representative in June 2006.

I would like to thank every COMPS researcher for his/her contributions to the advancement of COMPS, and extend a special welcome to our new Adjunct Professor Yong Tak Lee, a world renowned expert in optoelectronics, from GIST-Korea. COMPS is looking forward to meeting the challenge of moving MicroPhotonics from applied research to commercialisation.



Kamal Alameh