



MEDIA RELEASE

A*STAR INSTITUTE OF MICROELECTRONICS AND PEKING UNIVERSITY, CHINA TO DEEPEN COLLABORATION IN NON-VOLATILE MEMORY TECHNOLOGIES

Singapore, 1 December 2011 – A*STAR Institute of Microelectronics (IME) and Peking University (PKU) have announced to jointly collaborate in research interests spanning areas in emerging non-volatile memory (NVM) technologies such as RRAM. This partnership explores an alternative solution and comprehensive platform to change the landscape on modern computing and system design with NVM devices featuring faster access, higher endurance, and more compatible integration with complementary metal-oxide-semiconductor (CMOS) technology.

“Traditional memory cell is expected to face technology barrier with the continuous miniaturization of electronics devices. The collaboration with PKU expands on our current research efforts to enable future generation of technologies with enhanced speeds, power profile and scaling,” cites Prof. Dim-Lee Kwong, the Executive Director of IME.

“The synergy between IME and PKU brings about a potential wealth of value creation that advances our efforts in stepping up to a nascent dimension of growth within the nanoelectronics community and beyond. This has enabled us with the opportunity to collaborate with experienced talent to expand in areas of process, design and integration,” notes Prof. Hui Zhou, the Director of Office of Scientific Research of Peking University.

Resistive Random Access Memory (RRAM) is currently identified as a promising concept in this initial collaboration that qualifies as an ideal memory platform under NVM technologies to benefit specific markets that require power efficiency, speed and manufacturability such as in RFID tags, smart airbags used in automobiles, radiation-hardened memory in aerospace, printed memory platforms (such as smart cards, games and sensors) and high-end smart mobile phones. Compared with charge-based traditional memory devices, it has intrinsic scaling capabilities that operate at a faster timescale and has a smaller cell structure in dimension by vertical stacking of crossbars for nano-scaled memory technology that will significantly reduce current scaling limitations and endurance issues in traditional non-volatile memory technology.

About Institute of Microelectronics (IME)

The Institute of Microelectronics (IME) is a research institute of the Science and Engineering Research Council of the Agency for Science, Technology and Research (A*STAR). Positioned to bridge the R&D between academia and industry, IME's mission is to add value to Singapore's semiconductor industry by developing strategic competencies, innovative technologies and intellectual property; enabling enterprises to be technologically competitive; and cultivating a technology talent pool to inject new knowledge to the industry. Its key research areas are in integrated circuits design, advanced packaging, bioelectronics and medical devices, MEMS, nanoelectronics, and photonics. For more information, visit IME on the Internet: <http://www.ime.a-star.edu.sg>.

About Agency for Science, Technology and Research (A*STAR)

The Agency for Science, Technology and Research (A*STAR) is the lead agency for fostering world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A*STAR oversees 14 biomedical sciences, and physical sciences and engineering research institutes, and seven consortia & centre, which are located in Biopolis and Fusionopolis, as well as their immediate vicinity. A*STAR supports Singapore's key economic clusters by providing intellectual, human and industrial capital to its partners in industry. It also supports extramural research in the universities, hospitals, research centres, and with other local and international partners.

About Peking University (PKU)

The Peking University (PKU) is a comprehensive and research-intensive national key university in Beijing, China. The university has effectively combined research on important scientific subjects with the training of personnel with a high level of specialized knowledge and professional skill as demanded by the country's socialist modernization. PKU's mission is to be an incubator for innovative projects and to serve as a training center for talents with globe vision. For more information, visit PKU on the Internet: <http://english.pku.edu.cn/>.

For PKU

Media Contact:

Yan Sun
Peking University
DID: +86 10 62761777
Email: sun.y@pku.edu.cn

For IME

Media Contact:

Cindy Chew
Institute of Microelectronics
DID: +65 6770 5375
Email: chewwfc@ime.a-star.edu.sg