

Report on
Visit by President and CEO of ICmic
To the EECE Department
14 October 2012

As'salamu alaikum

Mr. Abd Rashid Munir, President and CEO of IC MICROSYSTEMS (ICmic), a Fabless IC design company specializing in the development of advanced mixed-signal and RF analog IC products in Malaysia, and holder of the Malaysia's top most innovative award from Small and Medium Enterprise Corporation Malaysia (SME) in 2010, visited the Department on Sunday October 14, 2012.

<http://www.icmic.com/index.html>

Mr. Abd Rashid Munir was welcomed by Dr. Serag El-Din Habib, Dr. Ahmed Shalash, Dr. Karim Osama, and Dr. Mahmoud El-Hadidi in the meeting which was held in the Department Council Head room.

During the meeting, Mr. Abd Rashid Munir presented an overview about his experience in leading ICmic since its establishment in 2001, which included developing world-class commercial IC products which include D/A converters, RF Communication devices and telecommunication products. ICmic also currently provides 12-bit ultra-low-power D/A converters which Sony, Inc. aims to use it their coming blue ray DVD drives.

He emphasize that the IC products from ICmic compete with top commercial ICs in the world in price and in performance. He also presented an overview about ICmic recent research work in designing CIGS solar cells with increased efficiency.

Mr. Abd Rashid Munir emphasized the importance of the research efforts pursued in academia which contribute to the advances in science and technology. He also emphasized the importance of blending this academic experience with knowledge about the customer needs in order to come up with requirements specifications for commercial ICs, and with knowledge about the IC manufacturing technology recipe which comes from the semiconductor foundry.

Mr. Abd Rashid Munir also presented an overview about ICmic role as the official regional distributor in the Middle East of Technology Computer-Aided Design (TCAD) tools and Electronic Design Automation (EDA) tools from the Silicon Valley Company (Silvaco International), one of the largest US companies in this area. He emphasized the role of TCAD tools in enhancing the understanding of the engineers of the IC manufacturing processes and the device physics through the ATHANA Framework for 2D & 3D Process Simulator and ATLAS Framework for 2D & 3D Device Simulator, and its supporting modules for research and development in various fields and applications in microelectronics IC design and fabrication.

Mr. Abd Rashid Munir also briefed the attendees about the contract conducted with Umm Al-Qura University in Saudi Arabia in 2010 to provide 10 licenses for 5 years along with maintenance

and upgrade support at a special educational discount provided by the Silvaco Universities Partnership Program for using TCAD Software from Silvaco in the Electrical Engineering Department at the University. ICmic offered 10 extra licenses in the Training Workshop held in October 2010 along with the installation of the TCAD software in the Computer Terminals Laboratory in the Department.

Mr. Abd Rashid Munir also emphasized ICmic role in providing training modules for electronics engineers at the ICmic Academy in its headquarters in Malaysia in order to enhance their skills and experience in analog and mixed-signal IC design, and providing opportunities for graduate students to pursue research work in the headquarters related to designing top IC products.

During the meeting, Mr. Abd Rashid Munir had the opportunity to hear about the successes achieved in the Electronics and Electrical Communications Department in VLSI research and development including the numerous designs and the manufactured IC products such as the CUSPARC processor and several other IC products designed by graduate students and faculty members in the Department.

The meeting concluded with a collective photographing and with kind agreement to seek more opportunities for cooperation between ICmic and the Department.

It may be worth noting that the Silvaco TCAD tools installed in the EE Department in Umm Al-Qura University included in addition to ATHENA 2D & 3D Process Simulator Framework and ATLAS 2D & 3D Process Simulator Framework, the S-SUPREM4 Silicon Technology Simulator, the S-PISCES, 2D Device Simulator, the Deckbuild Interactive Run-Time Simulator Interface, the Optimizer Process/Device Optimization Module, and Tonyplot 2D Interactive Scientific Visualization Tool. These tools are suitable for senior undergraduate courses in IC fabrication process and device modeling and simulation.

It may be also worth noting that Silvaco provides further process and device simulation modules for advanced areas and applications in IC fabrication process and device modeling simulation, such as the Luminous module used in the design of optoelectronic devices.

The Silvaco Website includes the TCAD and EDA module and product provided for research and development in IC products design and fabrications.

<http://www.silvaco.com>

As the University Program webpage at the Silvaco website indicates, the Silvaco University Program was established in 1990 to educate future generation of TCAD and EDA engineers by providing leading TCAD and EDA tools by incorporating these tools into their research and teaching curricula.

I invite the Electronic Group to consider the prospects for purchasing license(s) for the Silvaco TCAD tools for conducting research projects in IC fabrication electronic devices.

In Allah's guarding and safety,

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