Synopsys Collaborates with NTU, NCKU, NTHU, and NCTU to Establish Joint Design Labs for IoT Applications

Cooperative programs will cultivate advanced design talent and help facilitate further advancement of Taiwan's semiconductor industry

MOUNTAIN VIEW, Calif. and TAIPEI, Taiwan, June 22, 2015 /PRNewswire/ -- Synopsys today announced its cooperation with National Taiwan University (NTU), National Cheng Kung University (NCKU), National Tsing Hua University (NTHU), and National Chiao Tung University (NCTU) to establish joint advanced design labs for Internet of Things (IoT) applications at the aforementioned schools. This is the first cooperation between a foreign semiconductor design software and IP company and top universities in Taiwan to focus on advancing IoT ecosystem business opportunities and research and development (R&D). The collaboration is expected to cultivate semiconductor design talent and advance relevant industry development.

Dr. Aart de Geus, chairman and co-CEO of Synopsys, came from the U.S. to attend the opening ceremony for the joint advanced design labs today. Also present at the ceremony at the Grand Hyatt Taipei were Dr. Jyuo-Min Shyu, Minister of Science and Technology; Dr. Cheng-Wen Wu, senior vice president of NTHU; Prof. C.Y. Lee of the Department of Electronics Engineering, NCTU; Dr. Ming-Der Shieh, chairman of the Department of Electrical Engineering, NCKU; and Prof. Andy Wu of the Graduate Institute of Electronics Engineering, NTU.

"The Internet of Things includes a wide range of applications and is expected to transform the semiconductor industry ecosystem," said Dr. Jyuo-Min Shyu. "Synopsys is known for its industry-leading semiconductor design software and IP solutions. The joint labs for IoT at the four top universities in Taiwan can benefit from the company's world-class design technology by exposing our future chip designers to the latest industry trends while they are still in school. The collaboration can help facilitate the development of Taiwan's semiconductor industry by producing well-trained engineering and computer science professionals."

"Synopsys is a long-term strategic partner to the Taiwan semiconductor industry, and together we've grown over many years. Throughout those years, Synopsys has introduced many innovative technologies to our Taiwan partners to help them break through R&D bottlenecks, strengthen IC design practices and shorten time-to-market," said Dr. Aart de Geus. "The development of Internet of Things applications brings a whole new set of challenges to deal with merging technologies and low power needs. Synopsys technologies, including its power-efficient ARC processor IP, can help address these challenges. As a global leader in advancing solutions in electronic design automation, semiconductor IP, and software quality and security, we are committed to strengthening our cooperation in this important region and continuing to deliver advanced design technologies to our partners."

IoT is a new driving force for the ongoing growth of the global semiconductor industry. IoT applications such as wearables and machine-to-machine components have unique design challenges associated with meeting increasing performance goals within the power budget of battery-operated devices. Synopsys' DesignWare® ARC® Processors – widely used in SoC designs with more than 1.7 billion units shipping annually – deliver superior power-performance efficiency that enables designers to develop highly differentiated IoT products in the shortest possible timeframe. Through this Taiwan university collaboration program, Synopsys will donate to each school ARC EM Starter Kits, which are low-cost hardware platforms for software development and debugging based on ARC EM processors. Synopsys is also donating MetaWare Development Toolkits, which include the software development tools needed to program the processors. Finally, Synopsys will provide relevant programming course and lab materials, as well as faculty training to create a rich computer engineering environment where students can learn the advanced design and programming skills they need to be successful in today's fast-paced electronics industry.

"Our cooperation with four top universities in Taiwan to foster the development of engineering talent is unprecedented in its breadth. We will be working concurrently with the four schools in North and South Taiwan," said David Lin, country manager, Synopsys Taiwan. "The students and faculty of these academic partners will benefit from using our power-efficient DesignWare ARC processors, which have been licensed by more than 200 companies around the world and implemented in leading-edge SoCs targeted for the IoT. We are excited that our contributions of advanced processor IP technology and expertise can help these schools conduct market-relevant research and strengthen their R&D initiatives."

According to International Data Corporation (IDC), the worldwide IoT market will grow from $655.8 billion in 2014 to $1.7 trillion in 2020. [1] This data indicates that the IoT market has momentum for ongoing growth that will impact the global semiconductor industry.

Synopsys is committed to helping the Taiwan semiconductor industry cultivate its semiconductor design and software development talent through ongoing cooperation with both academia and business. In addition to the joint design labs for IoT applications, Synopsys Taiwan currently helps organize the Ministry of Education's IC CAD contest and works with the Tze

Chiang Foundation of Science and Technology to provide semiconductor design engineer training programs.

[1] IDC, 2 June 2015: "Explosive Internet of Things Spending to Reach$1.7 Trillion in 2020, According to IDC."

About Synopsys

Synopsys, Inc. (Nasdaq:SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As the world's 15th largest software company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP, and is also a leader in software quality and security testing with its Coverity® solutions. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing applications that require the highest quality and security, Synopsys has the solutions needed to deliver innovative, high-quality, secure products. Learn more at www.synopsys.com.

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