Session 4B

Anatomy of Platform-Based Design: Is It the Savior of UDSM SoC Design Crisis?

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[Summary:] Ever increasing UDSM design/manufacturing complexity and cost have generated serious ROI challenges. Numerous methods have been proposed and create various opportunities in the SoC industry and academia. Although IP-reuse has believed to be the-must-to-go approach but so far achieved limited success. Recently many people have argued "Platform-Based Design" as the golden solution for SoC design/manufacturing productivity. However the common definition of the Platform is not well established yet. In this panel, a group of distinguished panelists with various backgrounds will discuss what is their Platform and how PBD improve their and your SoC design productivity.

[Points of Discussion:] Some topics in this panel will be: 1) What is the Platform and Platform Based Design? 2) What is my Platform? What are attributes, components and hierarchy of the Platform? 3) What I get and what I loose (WYGWYL) with Platform Based Design. 4) Is my Platform same as yours? / Who should own the Platform? 5) What are EDA role, opportunity and challenges for the best Platform development?
The Adaptive Computing Systems (ACS) program was initiated by Defense Advanced Research Projects Agency (DARPA) of the United States in 1996. With the advent of FPGAs, has emerged a new class of computing systems that contain configurable hardware. This session begins by a presentation by the first ACS program manager of its motivation, original goals, and objectives. It is then followed by presentations of four specific projects under the ACS program. Future activities surrounding the ACS community will be discussed at the end.
In the past, government agencies played pivotal roles in the development of new technologies. For example, Internet is an outgrowth of the ARPAnet project sponsored by the Defense Advanced Research Projects Agency (DARPA) of the United States government. Recently, consortia of private industries, often in cooperation with government agencies, have entered into this picture. As a consequence, researchers in academia have shifted their attentions much more towards real-world applications. In the panel discussion, we first compare the traditional roles of funding agencies in the USA, EU, and Asia. We then focus on the new trends in this funding business in each of the three regions. We will examine why and how such shifts have been made and discuss the roles of funding agencies to be played in the coming years. In particular, we will attempt to search for future roles and new forms/ways of the funding agencies from the viewpoint of economic development driven by technology advancement.