TUTORIAL 4
EMBEDDED SOFTWARE DEVELOPMENT

Speakers:

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Background: Embedded software development is unlike software development for desktop or network environments. It is unique not only because every embedded device serves a unique purpose, it is different due to the very nature of firmware being very close to specialized hardware. This tutorial will provide an overview of the various pieces involved to develop embedded applications in a cross-target environment, including: integrated development environments for creating the software; compilers and associated tools for building the software targeted for various embedded CPUs and System-on-Chips (SoCs); debuggers designed to debug software running on the many different types of embedded CPU cores; and finally the different types of debug connections to various target execution environments and actual embedded hardware. The tutorial will also cover the specific problems faced by designers writing software prior to the availability of hardware. Attendees will leave with a good understanding of various pieces and the roles they play so they are better prepared to develop embedded software.

The tutorial is intended for designers and CAD engineers interested in the design of embedded software. Basic background in software development and VLSI is useful though not needed.