Open-People: Open Power and Energy Optimization PLatform and Estimator

Daniel Chillet

ENSSAT/IRISA/CAIRN, France
chillet@irisa.fr

Abstract. The presentation will explain the objectives of the ANR Open-People project and will focus on energy estimation based on high level modelling. This project aims at developing an hardware platform for consumption measurement of complex SoC.

This platform will be accessible via internet for industrial and academic users and will provide a library of power consumption models for several hardware boards. We are currently working on the description of power model of components. These models are described through an high level language and enable to make estimations and optimizations of the energy. The platform uses SystemC to ensure functional verification and validation in order to provide accurate estimations.

The consumption models developed in the Open-People projet can be defined at different levels of abstraction, and the SystemC simulation can use these different levels in order to facilitate the exploration step during the system design. In this presentation, we will show how the SystemC models can be used to extract power consumption of a complex system.