Abstract

Optimizing software for energy efficiency is an expensive task. There are only few tools available that assist developers to optimize their code at hand. Also, due to the complexity of systems, examining applications for energy hogs is a very time-consuming task.

The talk *Proactive Energy-Aware Programming* will present and discuss current approaches to energy-aware programming, from a pragmatic point of view. Existing techniques for energy-aware programming are being presented and their suitability is verified accordingly. Compared to today's best practice, the talk will further present the latest results of ongoing research efforts around the SEEP project.

The SEEP approach turns the modus operandi of energy-aware programming into a forward-looking process. Taking advantage of symbolic execution engines and platform-specific energy profiles, SEEP assists software developers in making application design decisions in the awareness of the decisions' impact on the energy footprint of the code under development.