The Open-PEOPLE platform

Open Power and Energy Optimization PLatformation and Estimator

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Goals
1. Hardware platform for actual, reliable power and energy consumption measurements
2. Library of components modeled in power and performances
3. Methods and tools to estimate and optimize the power and energy consumption of complex systems, including hardware, software, and operating system.
4. Remote access to the hardware platform through the software platform
5. Personal and secure access to the platform
6. Open to new users and contributors
7. Secured web platform for the sharing of models

Structure
Hardware platform: automated measurements test bench featuring several execution boards

Software platform providing access to the methods and services for modeling, estimation and optimization

Estimation and optimization flow
- AADL model based flow
- Independent modelling of application and architecture
- Coherent set of meta models to support power and energy modelling and analysis services:
  - QEML (Quantity Estimation Modeling Language)
  - LUTML (Look Up Table Modeling Language)
  - QAML (Quantity Analysis Modeling Language)
  - RDAL (Requirements Definition and Analysis Language)
  - CLML (Constraints Languages Modeling Language)
- Exploration and estimation based on model analysis and transformations
- Virtual SystemC platform for power estimations and optimizations refinement
- Support for code generations for hardware and software parts