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ICT Project No 688101
SUPERAID7
Stability Under Process Variability for Advanced Interconnects and Devices Beyond 7 nm Node

D6.1: Set-up of SUPERAID7 WWW Including Preliminary Version of Restricted Section

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Abstract

The structure and present contents of the SUPERAID7 WWW are described. The SUPERAID7 WWW aims at informing the public as well as at providing a means for exchange of information on different levels of confidentiality.

1. Introduction

The address of the homepage of the SUPERAID7 WWW is www.superaid7.eu. The webpage has been released in March 2016 and will be updated continuously.

The website contains a public section, a section for the partners, a section for the EC and the reviewers, and a section for the Industrial and Scientific Advisory Board (ISAB). Except for the public area, the sections are protected by accounts granting access to the respective authorized parties.

The technical implementation of the website is realized by a CQ5 content management system hosted by the central Fraunhofer IT services. This allows also straightforward extensions which might be necessary for instance to include further sub-sections.

2. Structure of SUPERAID7 WWW

The current sitemap of the SUPERAID7 WWW is shown in Figure 1.

2.1 Public Section

The public section is intended to display the goals and results of the project to the public. This is achieved for instance by providing a list of related publications, including also references to background work by the partners. Furthermore, the public deliverables and other suitable material such as public benchmarks will be part of the public section. A further section is devoted to the partners’ software tools to be used in the SUPERAID7 software framework. The section “Events” informs about related events, for instance conferences with major involvement of one or more SUPERAID7 partners. A screenshot of the homepage which is the entry point for the public sections is shown in Figure 2.

2.2 Partners’ Section

In the partners’ section, material is provided which is intended for internal use within the consortium, such as presentations from partner meetings, information on papers in submission procedure, presentation or report templates, contact details of the project team members, etc.

2.3 Section for EC and Reviewers

This section contains the contractual documents (such as deliverables) and further official information to be shared between the consortium and the European Commission and reviewers.
2.4 Section for Industrial and Scientific Advisory Board (ISAB)

SUPERAID7 will allow selected companies and research institutes/universities to join the ISAB. Material from the project intended for the members of the ISAB will be available in this section.

Sitemap

![Sitemap](image)

Figure 1: Sitemap of the current status of the SUPERAID7 WWW.
SUPERAID7 - Stability Under Process Variability for Advanced Interconnects and Devices Beyond 7 nm Node

Among the physical limitations which challenge progress in nanoelectronics for aggressively scaled Moore’s law, process variability is getting ever more critical. Effects from various sources of process variations, both systematic and stochastic, influence each other and lead to variations of the electrical, thermal and mechanical behavior of devices, interconnects and circuits.

Modeling and simulation (TCAD) offers the unique possibility to investigate the impact of process variations and trace their effects on subsequent process steps and on devices and circuits.

Within SUPERAID7 we will:
- establish a software system for the simulation of the impact of systematic and statistical process variations on advanced Moore’s law devices and circuits down to the 7 nm node and below, including interconnects,
- improve physical models and extend compact models,
- study advanced device architectures such as TriGate/Statice FETs or stacked nanowires, including alternative channel materials.

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Figure 2: Screenshot of the SUPERAID7 homepage.