

ENIAC supports development of new paradigms in integrated circuit design that will enable the manufacturing of reliable, low cost, low EMI, high-yield complex products.

A European group of high technology companies and research teams announce their collaboration in the MODERN project to develop new paradigms in integrated circuit design that will enable the manufacturing of reliable, low cost, low EMI, high-yield complex products using unreliable and variable devices. The project aims at developing advanced, yet accurate, models of process variations for nanometer devices, circuits and complex architectures. It will research effective methods for evaluating the impact of process variations on manufacturability, design reliability and circuit performance. Methods and tools will be designed to mitigate or tolerate the effects of intrinsic and extrinsic process variations on those quantities applicable at the device, circuit and architectural levels. Finally it will validate the modelling and design methods and tools on a variety of silicon demonstrators.

The MODERN (MOdeling and DEsign of Reliable, process variation-aware Nanoelectronic devices, circuits and systems) Project started in March 2009 for a period of three years, till early 2012. 28 Partners from 9 European countries are involved in MODERN and in total they have committed more than 200 person-years. Project members include NXP Semiconductors, The Netherlands; STMicroelectronics in France and Italy; Austriamicrosystems and Infineon Technologies in Austria; Centre Suisse d'Electronique et Microtechnologie, Switzerland; Elastic Clocks, Spain; Teklatech, Denmark; IMEP-LAHC Laboratory, France; Integrated System Development, Greece; Consorzio Nazionale Interuniversitario per la Nanoelettronica, Italy; CEA-LETI and Montpellier Laboratory of Computer Science, Robotics and Micro-electronics in France; Numonyx Italy; Synopsys Switzerland; Thales and Tiempo in France; Politecnico di Torino; Delft, Eindhoven, Graz and Vienna University of Technology; Università di Bologna; Universities of Calabria and Glasgow; Sapienza Università di Roma; Universitat Politecnica de Catalunya in Spain.

The MODERN Consortium features strong competence and expertise in the field of advanced technologies, with a well-balanced participation between Large Industries, SMEs, Research Centres and Universities from all over Europe.

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More information on MODERN can be found at <http://www.eniac-modern.org/>