

Panel: What Does the Power Industry Need from the EDA Industry and What Is the EDA Industry Doing About It?

Paul K. Wright (Chair)
UC Berkeley, USA

Abstract -- Until recently the electrical power industry has relied solely on traditional technologies - copper and iron as cables, transformers and machines as the mainstream solution for the generation, transmission and distribution of power. Whilst use of these materials and technologies is here to stay, improvements in power semiconductor technology mean that the industry is moving into a position where more and faster control of power systems can be achieved. This high level control requires a sensing and communication infrastructure to be put in place across the network. At the same time, the use of electricity in the home, through the potential of real time consumer pricing requires new technologies.

This panel session aims to pull together heavy current electrical power engineers and light current electronic engineers to form a discussion and debate about the future role of EDA in applications which are being brought about by changes in the functioning of the power industry. Power engineers from both industry and academia will stimulate the discussion with requirements both from a system perspective and consumer perspective. The representatives from the EDA

side will respond with what contributions they believe EDA can make, what already exists or is a simple development problem and what research issues remain in achieving these goals. In summary, this panel aims to provide motivation for the EDA industry to work on useful technology that can be applied to heavy power systems with a view to improving global energy efficiency.

Panelists:

- **Lars Bomholt**, Group director, Silicon Engineering Group, Synopsys, Switzerland
- **Prof Tim Green**, Professor of Power Engineering, Imperial College, UK
- **Prof Tony Ephrimides**, Cynthia Kim Professor of Information Technology, University of Maryland, USA
- **Dr Carl Blumstein**, Director, California Institute for Energy and Environment, USA