

**EU FP7 Projects SOFI/NAVOLCHI Special Session on
"CMOS Fabrication-Based Photonic Technologies for Communications"**



2013

The scope of the SOFI/NAVOLCHI special session is the following:

To solicit invited and contributed presentations on the hot topics of silicon-based photonic technologies. The primary foci will be plasmonic-silicon and organic-silicon based components for communication applications.

Plasmonics is a relatively new science field that bridges the size gap between electronics and photonics and brings out the best of both worlds. Plasmonics is expected to deliver novel high-speed and small footprint VLSI circuits that could be used in communication applications and high performance computing subsystems.

Silicon-organic hybrid technology envisions the creation of new components with functionalities that so far are not available in silicon. Recent experiments have shown that such a technology can boost the signal processing in silicon beyond 100 Gbit/s.

Based on the mature CMOS fabrication, the above technologies will allow for low-cost and high-bandwidth components capable for massive integration. Within the special session, recent research achievements will be reported and the relevant technology approaches that show the greater future potential will be highlighted.

Organisation Committee

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| Emmanouil-P. Fitrakis (<i>Lead Co-Chair</i>) | <i>Athens Information Technology, Greece</i> |
| Panagiotis Zakynthinos (<i>Co-Chair</i>) | <i>Athens Information Technology, Greece</i> |
| Juerg Leuthold (<i>Co-Chair</i>) | <i>Karlsruhe Institute of Technology,
Germany</i> |
| Ioannis Tomkos (<i>Co-Chair</i>) | <i>Athens Information Technology, Greece</i> |