Model-Based Design for System-of-Chiplets Computing Platforms – an Automotive Use Case

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Abstract

Automotive E/E architecture is going towards centralized computing platforms running a rich set of compute intensive applications with an increased number of sensors with high data traffic for fusion. Such a computing architecture requires scalability to cover the needs of all vehicle platforms with a reasonable power consumption and cost. Either software solutions optimized for flexibility or specialized ASIC solutions optimized for cost and power are not fully satisfactory to answer centralized automotive platforms. Starting from an automotive use case, this presentation will show how model-based design could help in exploring chiplet-based architectures for automotive centralized computing platform.

Curriculum Vitae

 Denis Dutoit is senior program manager for advanced computing and digital architectures at CEA-List. He contributed to several European projects in the field of high performance processors. His current focus is on architecture pathfinding into chiplet-based designs for computing applications including automotive electronics. He has authored or coauthored more than 20 articles, including invited talks and tutorials at IEEE conferences.