



The 15th International Conference on Mobile Systems and Pervasive Computing (MobiSPC 2018)
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Keynote I

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About the Speaker

Prof. Benitez is full professor at the University of Las Palmas de Gran Canaria (Spain). He received his PhD in Computer Science in 1994, and his master and bachelor degrees in Physics in 1987 and 1985, respectively. His research interests focus currently on high performance computer architecture and technology. He has taught graduate and undergraduate courses on parallel computing, computer architecture, computer technology and smart buildings.

Talk Title: Embedded Processors for IoT Cities

Many applications related to IoT cities such as building automation, traffic control, driver assistance, natural language translation, energy management, etc., are moving from servers to embedded computers while evolving at a rapid pace. The implementation of embedded applications for IoT cities is being facilitated by advances in processor architecture combined with available process technologies, enabling processors that offer very small size at performance levels that were unattainable a few years ago.

From high-performance to configurable embedded processors, some architectures have been proposed to improve the efficiency of emerging workloads of IoT applications. However, the performance and memory capacity of IoT systems need to increase even more while power consumption is significantly reduced. This is difficult to achieve because as both processor performance and memory size increase, so does power consumption. In a few years, as the technology matures, networkable products are expected to increase productivity, change how we access information and perform repetitive tasks, and profoundly change our IoT cities.

In this keynote, I will discuss the emerging trends driving the design of processors that will be embedded in IoT devices for future cities. Additionally, I will identify several challenges one may encounter when designing embedded processors for applications in the field of IoT cities.

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