



El Departamento de Informática de la Universidad Técnica Federico Santa María tiene el agrado de invitar a la comunidad Universitaria a su ciclo de coloquios. Esta presentación se realizará en el Auditorio Claudio Matamoros (F-106), en la Casa Central el día **Jueves 22 de Junio a las 12:00** y por videoconferencia a la Sala de Reuniones, Departamento de Informática, Campus San Joaquín, UTFSM.

## Título

# "Líneas de Producto Software Dinámicas para Sistemas atentos el Contexto" (Dynamic Software Product Lines for Context-aware Systems)

## Expositor



### Rafael Capilla

*Rafael Capilla, Universidad Rey Juan Carlos, España.*

### Mini Bio

Rafael Capilla is an Associate Professor at the Rey Juan Carlos University of Madrid. He received a PhD in Computer Science from his Rey Juan Carlos University, Madrid, Spain. His research focuses on Software Architecture, Software Product Line Engineering, Variability Management and Dynamic Variability among other topics. He is co-editor and co-author of the first book on Systems and software Variability Management (Springer, 2013) with Jan Bosch and Kyo-Chul Kang. He has edited special issues in IEEE Software, Wiley JSEP and Springer REJ and other three for IEEE Software and Journal of Systems and Software. He has also participated in

several EU and Spanish research projects and development projects with Spanish companies. Capilla is regular reviewer of well-known international Journals and Magazines and co-author of around 80 conference papers, Journals and book chapters. He has been also guest co-editor of journal issues and he co-organized several International Workshops and General Chair of the 14th European Conference on Software Maintenance and Reengineering, CSMR 2010 (Madrid). Currently he is General Chair of next VAMOS 2018, ICSR 2018 (and probably General Co-Chair of SPLC 2018). Rafael heads the Software Architecture & Internet Technologies (SAIT) research group in his university.

## Resumen

The emerging paradigm of Dynamic Software Product Lines is becoming popular to manage the variability of software systems dynamically and at post-deployment time. In a connected world, where a plethora of Cyber-Physical Systems, IoT devices, smart vehicles, robots, and so on, exploit intensively context knowledge to adapt their behavior at runtime and reduce the burden of human intervention. In other cases, systems must be reconfigured and redeployed several times accordingly to varying user demands and runtime scenarios. To address these issues and extending older proposals from the self-adaptive community using the traditional MAPE-K loop, new research trends from the Software Variability and Software Product Line areas are suggesting new techniques combining context properties with dynamic adaptations and variability mechanisms to provide smarter reconfigurable solutions. In this talk we will analyze the need to modeling the context knowledge of autonomous and adaptive systems and how runtime variability can be used to manage the variability at post-deployment time more efficiently.

## Lugar y Fecha

**22 de Junio de 2017, 12:00**

Auditorio Claudio Matamoros (F-106)

Departamento de Informática, Valparaíso. UTFSM

La charla se transmitirá en videoconferencia a la Sala de Reuniones, Campus Santiago, San Joaquín.