University of Pavia

Ph.D. School of Electrical and Electronics Engineering and Computer Science

SEMINAR

Digital Transformation at Thales Alenia Space (the "Big-Data" use case)

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Thales Alenia Space S.p.A.

22nd March 2018, 15:00
Seminar room of the former department of Electronics, floor "D"

Abstract: The Digital Transformation is the most structured and effective way to redefine existing business models and experiment with new ones. It is a journey of adopting innovative technology and methods. And it is only through this journey that can gradually or simultaneously transform operations, competencies, employees and leadership.

The digital transformation is not just a matter of technology. It needs a top management vision, company infrastructures, data-driven decisions and a new culture about information.
The presentation will synthetize the Thales Alenia Space experiences gained in the last two years about the Digital Transformation with a special attention to big-data management.

The Big Data use case presented will be focused on Satellite Telemetry. Satellites generate a lot of data not only during their life cycle but also during the manufacturing. Thousands of parameters are acquired day by day, year by year. The use of Big Data technologies allows fast retrieval, correlation, analysis, displayed and dissemination in a fast and secure way. The machine learning is the enable technology to anticipate the real satellite behavior and support the Control Center operators.
The selected technologies and technical drivers will be presented and discussed.

Bios:

Dario Fossati is the Director of Competence Centre Software Solutions of Thales Alenia Space Italy. He graduated in Mathematics in 1984 at the Università Statale di Milano. He has more of 30 years in the Space business. Among all the activities to be mentioned he was the System Engineer of the Command and Data Management System of the Huygens Probe which commanded and controlled the land on Titan in January 2005. He has also led the Navigation Department to be mentioned the design of the first Galileo Receiver in the world and that Galileo Signal is currently broadcasted by equipment designed in his department. He has also been responsible of Digital and RF equipment on board the Spacecraft. He is currently leading the development of on-board SW and design and implementation of Spacecraft testing and operations solutions. He is also the Sponsor of Big Data initiatives of the Industrial Organization of Thales Alenia Space Joint Venture.

Mauro Poletti is the Thales Alenia Space Test Benches Product Policy Manager. He graduated in Nuclear Engineer at Politecnico di Milano in 1982. He worked for two years as researcher at JRC Euratom, Ispra (VA) and then joined Thales Alenia Space Italy in 1984. He lived three different work experiences in TAS. The first in the SW: as an analyst programmer first, and then as responsible of the Ground SW department. In the second hel was responsible for Ground product in the Ground Business Unit. This responsibility included three technological lines: HW Design, SW Design, Assembly Integration & Validation; and two product lines: Telecommunication and Nuclear & Special Projects. The third (at actual one) he has transnational role to manage the Product Policy for test benches. The responsibility foresees the definition of a product strategy and to elaborate a product plan for the implementation together with product harmonization, between sites, competitiveness analysis and Return of Investment for new developments.

Egidio Martinelli is the responsible of the Ground Software Solutions Department. He graduated in Computer Science in 1988 at the Università Statale di Milano and he joined Thales Alenia Space Italy in 1988. He has been responsible of the design and development of Test solutions for Spacecraft embarked equipment. He has managed the Telecom broadband solution department. He is currently leading the development of software applications supporting the satellite integration, testing and validation and operation. During last years his department has been in charge of development of solutions based on cloud and Big Data Technologies.

Organizer	**Ph.D. Coordinator**
Prof. Fabio Dell'Acqua	Prof. Paolo Di Barba

Seminar in English

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