Monday 18 May 2020, from 2:00pm to 5:00pm

UNIVERSITA' DEGLI STUDI DI PAVIA

MECHATRONICS EXPLAINED BY COMPANIES: PRESENT AND FUTURE OF MACHINE DESIGN

Mechatronics Group of ANIE Automazione and **Università degli Studi di Pavia** organize a workshop on the mechatronic design of industrial machines.

A mechatronic application is the result of a combination of different technological disciplines where mechanical, electrical, electronic systems and IT interact in order to increase production efficiency. During the planning phase this convergence of goals is not always respected and one of the difficulties that may arise is that of enhancing the mechatronics' interdisciplinary nature.

This webinar declines this general concept in a series of speeches by the manufacturers/providers of mechatronic components and an OEM who uses their basic technological solutions to build industrial machines.

The aim is to illustrate to students the prevailing aspects of the design of a machine, part of an industrial production plant. The approach is very operational and concrete, linked to the real needs of the machine manufacturer and the end-user, but also have to consider the economic and practices requirements. Today, in fact, all the phases that lead to the realization of an automatic machine for industrial production are characterized by the need of optimize costs and time of design and implementation, in the face of an increasing demand for performance and functionality.

OPENING SESSION

- Welcome greeting by **Università degli Studi di Pavia**
- **Sabina Cristini**, President of WG Mechatronics - ANIE Automazione

OEM SESSION

- **Case history**: how the machine manufacturer works – Samer Andraws, ***FEDEGARI***

SESSION BY TECHNOLOGIES PROVIDERS

1. TRANSMISSION AND MECHANICAL DESIGN	
Kinematic chain and dimensioning	BONFIGLIOLI - LENZE ITALIA
2. SAFETY AND SECURITY	
Safety	SCHMERSAL ITALIA
Cybersecurity	ROCKWELL AUTOMATION
3. AUTOMATION AND CONTROL	
Artificial Intelligence applied to robotics	MITSUBISHI ELECTRIC
Condition monitoring	BALLUFF AUTOMATION
Robot guidance	SICK
Closed-loop systems in robotics	HEIDENHAIN ITALIANA
Dynamic problems with robot wiring	LAPP ITALIA
4. SIMULATION AND VIRTUALIZATION	SIEMENS
5. LOGISTICS	OMRON ELECTRONICS - SEW EURODRIVE

COMPANIES OF MECHATRONICS GROUP

For more information: anieautomazione@anie.it