Digital techniques at the heart of industrial renaissance

ISA-France Forum

Grenoble – 22 et 23 February 2022

Preliminary program

ISA-France (non-profit organization acting as French section of the **International Society of Automation –www.isa-france.org**) has organized every year for more than 10 years, a forum dedicated to the impact for the industry of technological developments in the fields of automation., information and data processing and communication. These forums, organized in conjunction with the academic world, provide an opportunity to take stock of the state of the art of innovative techniques and of their industrial stake.

After the Covid crisis, ISA-France is reviving this tradition. Europe and France in particular aspire to a strong renaissance of their industry to reduce the situations of dependence that the crisis has highlighted. This desire for development and new sovereignty must be carried out with respect for the environment, using high-performance, low-carbon technologies and circular economy approaches.

Digital technologies will play a key role in this. For Europe and for France, they are an opportunity to be seized, highlighted in initiatives such Industry 4.0. These technologies have considerably progressed and for many of them, have reached an operational stage.

The Grenoble Forum, on February 22 and 23, 2022, organized with the G-SCOP Laboratory of the University of Grenoble-Alpes, aims to review the key digital technologies that are necessary for redeployment industry, to assess their progress, to illustrate their implementation through use cases and to explore avenues for improvement.

The Forum will address in particular the following themes:

- **New architectures of industrial control and supervision:** Industrial Internet of Things, multi-access edge computing, cloud computing and their applications;
- **New communication systems:** 5G and local area networks, competition or complementarity? The challenge of private networks, very high speed, ultra-short latency ...
- **Artificial intelligence:** shape and image recognition, human-machine communication, applications to maintenance, quality control, robotics, safety at work...
- **Virtual reality, digital twins** and their applications in design, prototyping, optimization, operation, maintenance ...
- **The new challenges of cybersecurity:** Industrial Internet of things, SOC for the OT, zero-trust on industrial networks, hardening of components ...

All these techniques are as many opportunities for industry, to modernize its management and production tools, by introducing more efficient methods of communication and monitoring as well as of design and maintenance of installations. They pave the way for the development of new products and new services and encourage us to revisit the conventional way of manufacturing products and doing business.

The ISA-France Forum intends to support the industry in its effort to recover, by providing objective and operational information on the various scientific, technical and economic aspects.

The Forum is scheduled to last a day and a half and include around fifteen presentations by manufacturers, suppliers or users, start-ups, researchers from academia and representatives of public authorities.

Teachers, researchers, companies or organizations interested in intervening during the Forum are invited to contact ISA-France at contact@isa-France.org or with its president, Jean-Pierre Hauet (+ 33 6 08 90 86 17 or +33 1 41 29 05 09)

Companies interested in presenting, in the form of posters or mini-stands, materials, services or solutions related to the event can contact the organization: contact@isa-france.org or +33 6 08 90 86 17