

## A new era for quality assurance in industry

The 4th Industrial Revolution is characterized by the wide and focused design for each case application of Information, Communication and Electronics technologies in the industry. Production systems that already have computer technology expanded by network connection have a digital footprint on the Internet so that they can 'talk' to each other. In the Greek market, there is no single system, covering a set of basic applications, for the monitoring of the Means and the Process of production of a company, which will manage the entire volume of information. This means that neither the decision-making process is efficient and safe for the management, nor are conditions created for more efficient production and/or reduction of its costs.

Trying to fill this gap, SEEMS has developed the corporate aRTi-D™ Solution, a comprehensive and highly innovative digital platform (hardware and software), based on Industrial Internet of Things (IIoT) and Artificial Intelligence (AI) technologies for support for the Transition of Manufacturing Industries to Digital Transformation.

Based on the experience and trends that are formed in the wider market with the onslaught of digital technology, the high interest of manufacturing industries to modernize in order to remain competitive, SEEMS participated in the "ploTita" project, which is co-funded by the Region of East Macedonia and Thrace and had as its main purpose the development of two new important quality assurance systems during the production process, expanding the functionality of the corporate aRTi-D™ Solution already provided by SEEMS today.

Within the framework of the "ploTita" project, an innovative product quality assurance system was developed based on combined image analysis, through visual control (camera) and a spectroscopy device, using deep learning neural networks for more reliable quality control results. This system is combined with a modern indoor air quality assurance system, using Artificial Intelligence algorithms to detect pollutants, to evaluate the performance of existing ventilation systems and the possibility of immediate and remote intervention.

The proposed investment will significantly support the dynamic entry into the market of a modern Digital Solution, which ensures the health of employees, simplifies the process of automatic quality control and generally modernizes the way the Industry operates, increasing its efficiency, reducing its costs and creating prospects for extroversion, with the main weapon being competitiveness.

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