

DICYTECH: A hands on approach to cybersecurity training for industrial technicians

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Abstract: Nowadays, Information Technology (IT) and the Internet of Things (IoT) are widely exploited to industry, to automate manufacturing and increase productivity. However, this automated industrial environment assumes that the personnel is capable to identify potential cybersecurity threats and able to respond adequately when an attack is identified. Nevertheless, there is a lack of well-trained technicians and industries can hardly find qualified personnel. The Digital Training for Cybersecurity Students in Industrial Fields (DICYTECH)- is a two-year EU funded project that aims to fill the gap and provide industry the necessary open-source tools to train their personnel. The DICYTECH project, unites five EU partners from Greece, Portugal, Italy and Spain in the development of open access cybersecurity training modules and linked cybersecurity remote laboratories for cybersecurity education. DICYTECH will create 5 innovative digital DICYTECH Modules in both technical and transversal competences for cybersecurity students in Industrial environments available via an open attractive e-learning platform, and three fully developed remote cybersecurity laboratories in which learners can view and experiment with high end enabling IT technology and cybersecurity measures in simulated industrial contexts. The Modules will cover Industrial Networks, Equipment and Network Protection (deploying and maintaining cybersecurity in advanced industrial contexts), the Forensic (security) Analysis of these networks and countermeasures to threats, and transversal competences necessary for cybersecurity technicians. Each Module will offer learning challenges and digital tests to support learning upon completion of the learning activities. The Project will also develop a DICYTECH HUB that will coordinate access to the three remote labs, and also serve as an authentication and booking system.