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Critical Infrastructure Protection and Resilience Approximation of Training and Learning Paths in European Union Knowledge Hub

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Abstract:

In this multi-case study: the first case is addressed to gathering of cybersecurity skills and competencies as well as insights that the market needs for existing and future critical infrastructure workforce, conducted the analysis of cybersecurity programs, training, and study units in higher education. The first case is based in the general description of cybersecurity professional programs, current progress of security study modules, and designated steps that were needed to be taken for upgrading the security training, expertise studies, and higher education study units. The second case is addressed to the view of security training and studies of European Critical Infrastructure Protection and Resilience, establishment of on-line training and mentoring services, and generation of open study units and training in higher education. The contribution of this study is in security skills along with learning paths that leads to progress of these skills, development of competencies, and to progress of a learning management system that will be integrated with the European Union Knowledge Hub. The outcomes of study are presented and addressed to further cross-case analysis and approximation of training and learning paths as well as description of modular design of learning management system in the critical infrastructure domain.

Keywords:

security studies, security knowledge, critical infrastructure protection, critical infrastructure resilience.