

TECHNOLOGICAL FEATURES OF EDUCATING SPECIALISTS FOR DIGITAL FACTORIES OF THE INDUSTRY 4.0

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The task is to improve the technology of specialists preparation to work in digital companies of the economy industrial sector. The main principles to form competences being studied in the education companies while the specialists preparation of the Industry 4.0 being conducted. It is clear that the primary disciplines and its scientific content must be determined after the technologies being used in the digital companies. They propose to implement net forms to realize educative programs in close cooperation of educative companies and industrial companies equipped with cyber and physical systems. Oriented on practice approach to organize educative process may provide a high level of specialist preparation quality for the Industry 4.0. There is a scheme how to form a set of profile disciplines and its resource base which are oriented to prepare highly qualified cadres for the Industry 4.0.

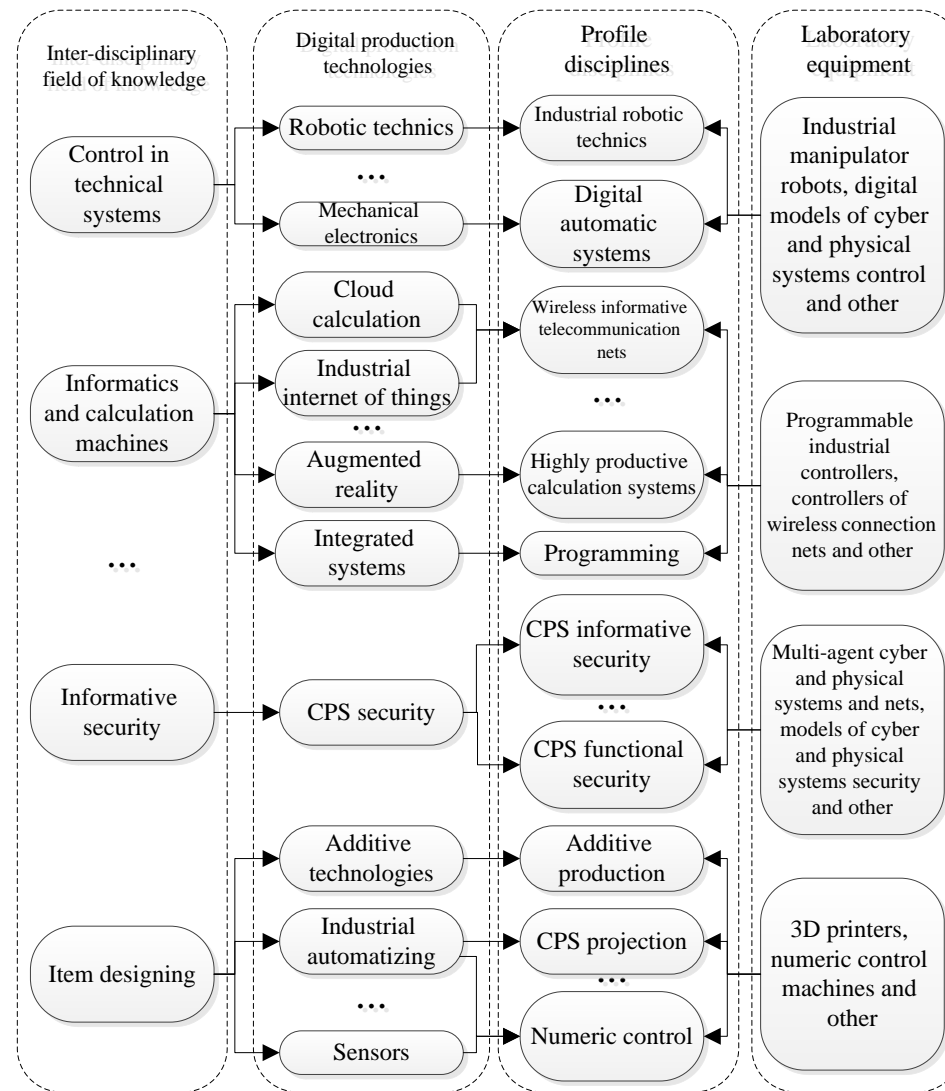


Figure 1. Formation scheme of profile disciplines set oriented for preparation of highly qualified cadres for the Industry 4.0.

Preparation of cadres to work in digital companies is the most important component of state science and technical politics to digitalize the economy. To develop new educative programs they require to create the educative standards of new generation. The creation of new occupations oriented for digital production also mean that the state in their new professional standards which describes the job descriptions and actions of potential specialists must correspond to the technologies of cyber and physical systems acquired in the educative company.

Multi discipline approach to study the profile disciplines requires that the educative companies make some structural changes which changes the existing ideology of faculties creation where the primary unit is a cathedral. This cathedral principle of educative companies was intended for specialized formation of knowledge and skills for students where the Industry 4.0 companies require the personnel which has different knowledge in the digital production technologies. Such knowledge today may grant only the artistic groups of science and educative personnel in different occupations united into educative company into a single, bigger than a cathedral, structure.

Creation of new occupations oriented to operate cyber and physical systems and technologies being implemented into the economy industrial sector in time will re-distribute the workforce market. Some occupations existing today especially occupations of «subtractive» production most probably will be replaced with new one occupations of additive production. Production companies staff will lower in time because the companies will implement paperless documentation and deeper automatizing of production processes. In this conditions the priority direction for educative companies must be the transformation of educative process to the inter disciplinary component and make stronger industrial and technological connections with partner companies which is the practical side of specialist preparation.