Curriculum for the Manufacturing and Engineering Course Programs in Industries

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Abstract : Industrial Engineering and Management (IEM) is a continuous, adaptable, and dynamic branch of engineering. The purpose of this study is to use a knowledge-based course classification method to investigate four IEM educational programs in Europe. Furthermore, the relative weight of each sector was determined using the credit value of the courses. IEM-specific locations and pooled areas were the two related kinds of areas that were used. The results show that, among the four program curricula, Production Management is the specific area with the largest weight, while the specialism field of IEM has a similar weight. This method has proved to be useful for curriculum analysis. The results show that one characteristic of IEM curriculum programs is diversity in the knowledge domains related to IEM specialism. The research also highlights the importance of an organized structure for defining IEM applications, allowing benchmarking efforts, and promoting communication between academics and the IEM community.

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Keywords : industrial engineering and management, knowledge areas, curriculum analysis, community

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