

Special Session SS_02

Human Factors and their Keys into Logistics and Production Planning, Development and Research

Brief description of the specific scientific scope of the Special Session:

Nowadays, the situation of human factors in production and logistics systems is changing. The emergence of novel technologies, Industry 4.0 applications and societal changes (e.g., aging workforce) are transforming operations management. This transformation is still a big challenge for a large number of companies worldwide and there are open doors for new management procedures which can successfully lead to overcoming upcoming challenges in production and logistics sectors.

With the emergence of Industry 4.0, companies have begun to utilize advanced control tools enabled by real-time monitoring systems in order to develop efficient planning models which enable proactive managerial decision-making. In spite of an increasing trend in automating human work in most companies, the human workforce embodies the main components in many production and logistics systems. According to available evidence, many of these planning models developed for managerial decision support do not take into account human factors and their effects on the system or workforce performance. This is the main reason for inaccurate planning results and decisions, increased health hazards for employees, and finally, low-performance systems.

List of topics of interest

1. Human factors in manufacturing systems
2. Workforce satisfaction enhancement in manufacturing systems
3. Aggregate Production Planning Systems
4. Application of Industry 4.0 in new era of manufacturing
5. Logistics network design
6. Supply chain management
7. Machine learning application in manufacturing systems

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