

## **Subject: Application of modern learning technologies in manufacturing and production systems.**

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According to significant changes in the role of employees in industrial systems, people are struggling to maintain with day to day changes. Unfortunately, current manufacturing education can not entirely answer to the various needs and requirement of industrial systems. In this situation, Educational systems in manufacturing and production systems need to be updated in order to train multi skilled engineers, technicians and managers who have enough knowledge about modern trends coming out in this area.

With emerging modern technology learning methods, traditional educational systems are little by little being replaced by new and efficient ones. Applying ICT tools, simulation techniques, serious games, teaching factory, etc have been appeared in manufacturing education systems in recent years and they can stimulate stakeholders because of their outstanding features and providing considerable facilities in learning procedure.

Allocating an special session about technology enhanced learning in manufacturing systems can provide an opportunity for researchers to present their efforts in this area and also can bring participants attention about the importance and advantage of applying modern learning technologies in order to train people in the quick changing industrial environment. The main objective of this session can be defined by highlighting the importance of applying the modern and effective learning technologies for training people in manufacturing and production systems. Some topics can be elaborated in the session are:

- Serious game and simulation for manufacturing education
- Teaching factory for production system learning
- Application of new technology for learning in manufacturing and production systems
- The effectiveness of modern learning technologies
- Intelligent Educational Systems
- Wireless, Mobile and Ubiquitous Technologies for Learning
- Ambient Intelligence and Smart Environments for Learning
- E-learning in the Workplace
- Case studies in manufacturing education
- Game-based learning in manufacturing systems