



جلسه ارائه علمی دانشکده مهندسی صنایع

# تولید هوشمند: روندها و عوامل مؤثر

## Smart Manufacturing: Trends and Enablers

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این ارائه پیرامون نقش تکنولوژیهای مبتنی بر کامپیوتر و فناوری اطلاعات در زمینه برنامه ریزی سیستم های تولیدی است. در این جلسه دکتر فرهاد عامری، علاوه بر معرفی فضای کلی ادبیات علمی مربوطه، روندها و موضوعات تحقیقاتی حال حاضر را در این زمینه توضیح می دهد و هدف این است که با بحث و گفتگو پیرامون این موضوع، دیدگاه جامعی از مسائل و چالش های پیش رو در این حوزه از مهندسی صنایع بدست آید.

### Abstract

Manufacturing systems are under continuous transformation by the advances of cyber-enabled technologies such as cloud computing, wireless sensors, and semantic web services. **Smart Manufacturing** refers to intensified and pervasive application of networked information-based technologies throughout the manufacturing and supply chain enterprise. The paradigm of smart manufacturing is driven by the need for highly flexible and agile manufacturing systems that can produce innovative products with low cost, short time-to-market, and minimum environmental impact. In this presentation, the major trends and research directions in the general area of IT-enabled design and manufacturing are discussed. The particular focus is on the underlying knowledge models and ontologies that support active participation of intelligent machine agents in various decision-making activities throughout product realization process.

### Short Biography

Farhad Ameri received his doctoral degree in Manufacturing Engineering from the University of Michigan Ann Arbor in 2006 and served as a Postdoctoral Scholar at Clemson University from 2007 to 2008. He received his B.S and M.S in Industrial Engineering from Iran University of Science and Technology and Sharif University of Technology respectively. He is currently a tenure-track Assistant Professor in the Department of Engineering Technology at Texas State University. Dr. Ameri's research areas include Engineering Informatics, Knowledge-based Engineering, and Distributed Design and Manufacturing