

APMS 2019

September 1-5, 2019
Austin, TX



Towards Smart Production Management Systems

“Emerging Challenges and Research Opportunities in Smart Services”

APMS 2019 - Plenary Session 1

Tuesday, September 3
4:00 to 5:15 PM
Salon J

Background: With a dominant portion of the world economy and employment in the service sector, it is imperative for engineers and managers to use processes and technologies to optimize productivity and quality of services. Generally, the productivity in service sector lags the manufacturing sector. APMS community can play a central role in improving productivity and quality in service industries by using and adapting techniques that have been successfully used in manufacturing. In this panel we will explore emerging challenges and research opportunities to make services smarter.

Panel Moderator & Session Chair:

Vittal Prabhu, Penn State, USA

Panelists:

- Hospitality & Supply Chains Services
[Toshiya Kaihara](#), Kobe University, Japan
- IoT Enabled Healthcare Services
[Shamit Patel](#), Alpha Nodus, USA
- Transportation & Logistics Services
[Chip White](#), Georgia Tech, USA

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Panel Structure (75 minutes):

5 minutes – The moderator introduces the aim of the panel and the panelists to the audience.

30 minutes – Each panelist will have 10 minutes and 3 slides to report to the audience on the focus area (slide #1) emerging challenges (slide #2) and research opportunities (slide #3) to make the services in their focus area smarter.

15 minutes – The moderator will ask questions to the panelists to synthesize across all three foci areas.

20 minutes – Questions from the audience.

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“Towards Smart Production Management Systems: Things, Services and People”

APMS 2019 - Plenary Session 2

Wednesday, September 4
10:30 to 12:00
Salon J

Background: This keynote panel session aims to discuss with the APMS community the current trends and future challenges towards Smart Production Management Systems. The discussion will be around the different production resources that as a whole and individually provide a production system with different “smart” capabilities, including its smart assets, smart products, smart services, and smart operators. Furthermore, the panelists, also co-chairs of some APMS 2019 special sessions, will report on the research contributions of their chaired sessions to the development of methods, tools and practices for the design, engineering and management of smart production systems.

Panel Moderator & Session Chair:

Serm Kulvatunyou, National Institute of Standards and Technology, USA

Panelists:

- Smart Things
 - Smart Assets – Irene Roda, Politecnico Di Milano, Italy
 - Smart Products – Thorsten Wuest, West Virginia University, USA
 - Special Session Chairs: Product and Asset Life Cycle Management in Smart Factories

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- Smart Services
 - Paolo Gaiardelli, University of Bergamo, Italy
 - Special Session Chair: Designing and Delivering Smart Services in The Digital Age
- Smart People
 - David Romero, Tecnológico de Monterrey, Mexico
 - Special Session Chair: The Operator 4.0 and the Internet of Things, Services and People

Panel Structure (90 minutes):

5 minutes – The chair introduces the aim of the panel and the panelists to the audience.

40 minutes – Each panelist will have 10 minutes and 3 slides to report to the audience on the current trends (slide 1) and future challenges (slide II) towards Smart Production Management Systems from the perspective of their corresponding production resource as well as on the research contributions (slide III) of their related APMS special sessions chaired to the development of methods, tools and practices for the design, engineering and management of smart production systems.

25 minutes – The chair will ask questions to the panelists aiming to interrelate their individual contributions, e.g. how a smart operator works together with a smart asset, using a smart service?

20 Minutes – Questions from the audience.