



## TEES-ENSAM International Workshop on Smart Manufacturing for the Factory of the Future

**Organizers:** Texas A&M Engineering Experiment Station (TEES) and Ecole Nationale Supérieure d'arts et métiers (ENSAM)

**Workshop coordinators:** Satish Bukkapatnam and Mohamed El Mansori

**Sponsors:** Texas A&M Engineering Experiment Station (TEES), Ecole Nationale Supérieure d'arts et métiers (ENSAM), Society of Manufacturing Engineers (SME), and French Consulate in Houston

### Objectives:

- Formalize TEES-ENSAM partnership for joint cluster in materials and manufacturing
- Define and develop plans for international excellence in advanced manufacturing
- Discuss and explore industry needs in the emerging manufacturing research and education
- Discuss and explore collaboration opportunities in research and education

### Program:

#### 6/22 Venue: Hall of Champions

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|--------------|---|
| 5-6 p.m.     | SME panel discussion: International education needs and opportunities in smart manufacturing for the industry of the future (Part 1) <ul style="list-style-type: none"><li>• SME, TEES, ENSAM, industry, alumni</li></ul> |
| 6-8:30 p.m.  | Reception and banquet   |
| 8:30-10 p.m. | Optional facility tour  |

#### 6/23 Venue: Emerging Technologies Building Room 1034

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|----------------|---|
| 8-8:30 a.m.    | Breakfast   |
| 8:30-8:35 a.m. | Welcome and formal agreements   |
| 8:35-9:30 a.m. | Presentation of ENSAM/TEES international initiative<br><i>Chair: Eyad Masad</i> <ul style="list-style-type: none"><li>• 8:35 a.m. Presentations: TEES and ENSAM leadership, Satish, Mohamed</li><li>• 9:55 a.m. DOE Smart Manufacturing Vision (Sudarsan)</li></ul> |

- 9:15 a.m. SME (Krause)
  - 9:35 a.m. Qatar workshop update (César O. Malavé, Masad)
  - 9:50 a.m. PACA region economic development (Stephane Ghio)
  - 10:10 a.m. Consul general remarks (Alian)
- 10:20 a.m. Break
- 10:30-11:10 a.m. Presentation of ENSAM/TEES joint research programs  
*Chair: Nikos*
- 10:30 a.m. Advances in modeling and analysis of machining and polishing processes for natural fiber composite materials (El Mansori, Bukkapatnam, Tai, Reddy)  
*Presentation: Faissal Chegdani*
  - 10:45 a.m. Advances in sensor-based monitoring of natural fiber composite materials (El Mansori, Bukkapatnam, Tai, Reddy)  
*Presentation: Zimo Wang*
  - 10:55 a.m. Advances in machining of natural fiber composite materials (El Mansori, Bukkapatnam, Tai, Reddy) *Presentation: Behrouz/Bruce Tai*
- 11:15 a.m. to noon Presentation of industry engagement for joint research partnerships  
*Chair: ZJ Pei*
- STIL — Development of 3D sensors for smart manufacturing  
*C. Corleto, CEO, STIL*
  - Airbus — Helicopter factory of the future  
*Pascal Gaudry, Senior VP Maintenance Repair and Overhaul, ESRAirbus Helicopters*
- Noon-1:30 p.m. Working lunch and education program  
*Chair: Arun Srinivasa*
- Summer study abroad, student exchange, IRES plans  
Hogan and students via webex
- 1:30-3 p.m. Panel discussion: Industry needs and partnerships in smart manufacturing  
*Chair: Marwan*
- Airbus, STIL, NSF, DOE, NIST
- 3-4:30 p.m. Panel discussion: International education needs and opportunities in smart manufacturing for the industry of the future  
*Chair: Michael Johnson and Jyhwen Wang*
- SME, TEES, ENSAM, industry, alumni
- 4:30 p.m. Closing and social