

# Big Data Analytics & The Future of Manufacturing

**Date:** Thursday, September 5, 2019; 8:00 am – 5:00 pm  
(Optional Tour will be from 5:00-5:30 pm – must be pre-registered.)

**Hosted at:**

DOE's Manufacturing Demonstration Facility (MDF) at  
Oak Ridge National Laboratory (ORNL)  
Building 3, Room 112 A-C  
2350 Cherahala Blvd.; Knoxville, TN 37932



**Purpose:** A workshop focused on giving companies insights for utilizing specialized research in big data analytics for manufacturing processes and productivity. This is part of a regional initiative on big data analytics focused on manufacturing, transportation and health care and is a follow up of a meeting entitled Democratization of Manufacturing organized by UT and Oak Ridge National Laboratory (ORNL) in Nov. 2018. During that meeting, the attendees raised concerns that the modern tools of data analytics may not be accessible to small-scale industries. This workshop will focus on approaches to address this need and involve the diverse stakeholders in scoping what capabilities are in the region and what capability gaps need to be filled.

8:00 Registration and Breakfast

8:30 Welcome and Introductions:

- Jim Campbell, President, East Tennessee Economic Council (ETEC)
- Dr. Suresh Babu, Director, University of Tennessee's Bredesen Center for Interdisciplinary Research and Graduate Education; UT/ORNL Governor's Chair of Advanced Manufacturing; UTK Professor, Department Mechanical, Aerospace, and Biomedical Engineering.
- Glenn Jacobs, Mayor, Knox County, Tennessee

9:00 Q&A / Discussion

9:15 Keynote Speakers: Technical Opportunities, Needs and Capabilities:

- *Future of Manufacturing: Role of Data Analytics:* Dr. Tom Kurfess, Chief Manufacturing Officer, ORNL
- *Tools and Case Study: Internal & External Examples:* Dr. Vincent Paquit, Data Analytics Lead, MDF, ORNL

10:15 Break

11:00 Discussion with Audience and On-Line Survey to Identify Key Needs

11:50 Remarks: Lieutenant Governor Randy McNally, State of Tennessee

12:00 Lunch with Keynote Speaker

(Introduced by: Bill Tindal, Site Manager, CNS Y-12 National Security Complex)

- Jim Davis, Vice Provost, Information Technology & Chief Academic Technology Officer, UCLA; Principal Investigator & Principal CIO Advisor, Clean Energy Smart Manufacturing Innovation Institute (CESMII)

1:00 Breakout Session Overview with Session Leads

- *Data Analytics for Advanced Manufacturing:* Dr. Scott Smith, ORNL
- *Data Analytics for Additive Manufacturing:* Dr. Vincent Paquit, ORNL
- *Tools for Integrating Business and Manufacturing:* Dr. Russell Zaretski, UT Bredesen Center
- *Software Education and Training* – Roundtable Discussion
- *Infrastructure & Resources Needed for Success:* Bonnie Carroll, Information International Associates

(Continued)

1:30 Transition to Breakout Sessions

1:45 **Breakout / Listening Sessions:** Choose one session to attend.  
(Include: Introduction by lead, panel presentations, at least 40 minutes for audience discussion.)

- **Breakout Session 1: Data Analytics for Advanced Manufacturing (RM 112A)**

*Lead:* Dr. Scott Smith, ORNL

*Panelist(s):*

- 1) Michael Mattmann, CNS Y-12 National Security Complex
- 2) Chris Owen, Denso
- 3) Denise Rice, Tennessee Manufacturers Association
- 4) Dr. Will Sames, HTS International

- **Breakout Session 2: Data Analytics for Additive Manufacturing (RM 112B)**

*Lead:* Dr. Vincent Paquit, ORNL

- **Breakout Session 3: Tools for integrating Business and Manufacturing (RM 304)**

*Lead:* Dr. Russell Zaretski, UT Bredeesen Center

*Panelist(s):*

- 1) Brien Evans, Online Development
- 2) Bob Wilson, RDI

- **Breakout Session 4: Software Education and Training (RM 305)**

*Roundtable Discussion*

*Panelist(s):*

- 1) Teri Brahms, PSTCC

- **Breakout Session 5: Infrastructure and Resources Needed for Success (RM 112C)**

*Lead:* Bonnie Carroll, Information International Associates

*Panelist(s):*

- 1) Steve Jones, City of Oak Ridge Economic Development
- 2) Dean Rice, The Ingram Group
- 3) Stacey Patterson, University of Tennessee

2:45 Break

3:15 Summary Report from all Breakout Sessions / Discussion

4:45 Departure

5:00 Optional Tour of the MDF (closed-toes shoes are required)

Thank you for being with us today!



BIG DATA ANALYTICS WORKING GROUP  
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