

Smart Manufacturing NSF Workshop

Jim Davis (UCLA) and Tom Edgar (UT-Austin)

An invitation-only NSF Workshop entitled, High Priority Research Areas in Integrated Sensor, Control and Platform Modeling for Smart Manufacturing will be held on Monday, February 23rd and Tuesday, February 24th at the Georgia Tech Manufacturing Institute, Atlanta, Georgia. The Smart Manufacturing leadership Coalition (SMLC) is a co-sponsor of the workshop. Workshop Chairs are Tom Edgar (UT-Austin), Jim Davis (UCLA), and Tom Kurfess (Georgia Tech).

The workshop will define research needs and priorities for the real-time sensing, controls, platform and modeling technologies that underpin Smart Manufacturing. The workshop will build from the reports of the AMP 2.0 (Advanced Manufacturing Partnership) workgroups on ASCPM (Advanced Sensing Control and Platforms for Manufacturing) and VIDM (Visualization, Informatics and Digital Manufacturing) to define fundamental research opportunities and a roadmap for these technologies with respect to Smart Manufacturing.

See http://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/amp20_report_final.pdf.

The workshop will examine the intersections between ASCPM-defined control and platform modeling and between ASCPM and VIDM (as defined by AMP 2.0) by bringing together research and industrial experts from a cross section of continuous, batch, discrete and hybrid manufacturing interests. This encompasses the application of real-time enterprise smart and digital manufacturing technologies, including real-time process management and control, simulation, modeling and data analysis, manufacturing execution systems, supply chains, product and production design and optimization. An important objective is to understand how these interlinked cyber technologies are appropriately balanced and integrated for process and discrete product industry applications with a view toward next generation smart manufacturing technology trends. Invited speakers will set the stage for a workshop that will develop priorities about the intersection of these technologies from research, development and delivery viewpoints.

A workshop report will be available later in the Spring.