Chair message

Of “ICADAM: Global Design and Manufacture”

The “ICADAM: global design and manufacture” special track focuses on the issues and challenges of globalisation of manufacturing industries and advanced methods, tools and techniques for design and manufacture in such a context.

The globalisation of manufacturing industries leads to a thirst for rapid advancements in technological development and expertise in the fields of advanced design and manufacturing. In this scenario, both industry and the academia have an urgent need to equip themselves of latest knowledge and trend regarding design and manufacture.

This special track solicits both cutting edge fundamental research and recent industrial application papers with a goal towards bringing together design and manufacture practitioners from academics, government organisations, and industry from all over the world. The special tracks aim to cover the recent advancement and trends in the area of global design and manufacturing and to facilitate knowledge sharing, presentations, interactions, discussions on emerging trends and new challenges of globalisation in design and manufacturing fields.

The particular focus of this special track is on the understanding of the impact of distributed team based design and manufacture on research and industrial practices for global companies.

ICADAM as a special track of IDMME-VC conference is the fourth conference since 2004 first organised. Most of these events held in China with a significant number of attendees. As a special track ICADAM will give the opportunity to Chinese and worldwide scientists to meet the AIP-PRIMECA, CIRP and DS members. It will also provide the opportunity for active exchanges between worldwide researchers on the following topics:

- Global production and process engineering
- Economical and sustainable assets management in production
- Process management and control techniques
- CIM/ERP/MES
- FMS, AMS
- Extended and virtual factory
- Distributed enterprise

Three sessions are organised in this special track to illustrate the global extended industry aspect from product design to manufacturing systems design:

- **Session 1: Global design tools, methods and techniques**
  - Towards long-term archiving of 3D annotated models: a sneak peek to a potential solution (Louis Rivest, Fawzi Kheddouci, Fortin Clément)
  - Identifying key parameters in creative design (Yuemin Hou)
• A PLM Environmental Knowledge Management System (Thitiyam Manakitsirisuthi, Yacine Ouzrout, Abdelaziz Bouras)
• Building design representation space: building blocks (Yuemin Hou)

• **Session 2: Extended and virtual factory**
  - Multi-scales simulations in digital factory, experiment on an aeronautical example (Ronan Derroisne, Vincent Cheutet, Samir Lamouri, Roberta Costa Affonso, Benoît Fricero, Hugo Falgarone)
  - Reverse Engineering for NC Machining Simulation (Nabil Anwer, Yang Yi-Jun, Zhao Haibin, Olivier Coma, Jean-Claude Paul)

• **Session 3: Information Technology for global design and manufacture**
  - A Survey on Tolerancing Task Integration in PLM (Yasser Rhahli, Magali Bosch, Bernard Anselmetti, Benoît Eynard)
  - Towards Sketch-based Modelling for Laser Cladding (Philip Farrugia, Ryan Cann, Alexandra Bonnici, Maurizio Fenech)
  - Ontology Building of Manufacturing Quality Knowledge for Design Decision Support (Keqin Wang, Shurong Tong, Nada Matta, Lionel Roucoules, Benoît Eynard)

Benoît Eynard, Xiu-Tian Yan, Lionel Roucoules
Chairs of ICADAM