

Northwestern Polytechnical University—University of Technology of Compiègne

1st Seminar of the Common Research Group

Virtual prototyping for design and fabrication

Xi'an, July 20 – 22, 2004

PROGRAMME OF CONFERENCES

July 20, 2004, 8:30~11:30

Simulation of post-localization behavior in tubular hydroforming,
Jean-Marc Roelandt

The Development and Research on The Computer Supported Cooperative Design System of Gears
Zongde FANG, Dongfeng Ren

Coffe break

Research on Electromechanical Coupling Characteristics of Micro Flapping Mechanism
Zongde FANG, Yu Hou

Biomimetic Wings Design and Optimization for Piezoelectrically Actuated Flapping-Wing Microrobot
Zongde FANG, Lan Liu

Discussion

July 20, 2004, 14:30~18:00

Monte-Carlo simulations of life expectancy using the dual boundary element method,
Jean-Marc Roelandt

A scheme for the compensation of deformation error in NC machining of thin-walled complex parts
Dinghua ZHANG, Chuanguo Hu

Coffe break

Semantic-based integration of heterogeneous data sources for enterprises
Shusheng ZHANG

R & D Hybrid Mode Product Collaborative Development
Rong Mo, Zhiyong Chang

Discussion

July 21, 2004, 8:30~11:30

Design Approach of Mini-Magnetostrictive Actuator
Marc Bonis, Bintang Yang, Hua Tao

Micro Electro-mechanical System Integrated Design Technology
Weizheng YUAN

Coffe break

Design and Fabrication of a Two Dimensions Mini-Magnetostrictive Actuator
Hua Tao, Bintang Yang, Yun Huang, Zidong Yin

Discussion

July 21, 2004, 14:30~18:00

Meshfree techniques - diffuse elements and response surfaces,
Piotr Breitkopf

Meshfree methods in elasto-plastic contact problems
Geng LIU

Coffe break

Research on integrated and intelligent design platform of aircraft assembly order.
Hua Tao, Wentian Guan, Xiaofeng Gu, Jun Wu

Discussion

July 22, 2004, 8:30~11:30

Optimization with evolutionnary algorithms using simple robustness criteria,
Catherine Vayssade

Research activities developed at the Sino-French Laboratory of Concurrent Engineering
Weihong ZHANG

Coffe break

The presentation is planed to cover some basic theoretical and computing issues about:

- Efficient multicriteria structural optimization methods using multibounds formulation
- Pareto optimum sensitivity analysis
- Topology optimization with material microstructure design
- Numerical simulation of form errors in milling process.

Weihong ZHANG

Discussion

July 22, 2004, 14:30~18:00

Recent developments on the analysis and optimum design of sheet metal forming parts using a one step approach
Hakim Naceur.

The Identification of material parameters and its applications in the process control of metal forming

Jianjun WU

Coffe break

Tube Spinning Forming with Traction
Hua Tao, Zhiren Han

Discussion