Preface

As the complexity of design, visualization and engineering increases rapidly, single-user’s effort is no longer enough to accomplish ever-growing requirements. Group effort becomes essential. There are many industrial areas that demand strong CDVE support such as mechanical engineering, aerospace engineering, architecture design, engineering and building construction (AEC), etc. There are numerous other application areas where cooperative and concurrent working is becoming popular, such as entertainment program development, networked gaming, simulation, collaborative learning, etc.

Successful cooperative design, visualization and engineering highly depend on the advances in fundamental research areas such as concurrent processing, middleware, agent-based methods, design patterns, distributed systems, databases, transport protocols in network communication, human machine interaction, group behavior ..., just to name a few. There is a very tight relationship between cooperative design, visualization and engineering. Cooperative design will become impossible without cooperative visualization while cooperative engineering processes would not be complete without cooperative design and visualization.

From my research experience in the field since 1996 in the Spanish National R & D Project CICYT TEL 96-0544, 3D Cooperative Design System (Sistemas Cooperativos de Diseo en 3D), up to the European Esprit (IST) Project No. 26287, Multi-site Cooperative 3D Design System for Architecture, M3D, where I acted as the coordinator and main researcher during 1998–2001, it has been my personal dream to organize an international conference to bring researchers in related areas together. The CDVE 2004 conference is a personal dream that came true. I would like to express my thanks to all the members in the international program committee for their generous support to make the conference possible. The conference provided a unique opportunity to bring multi-disciplinary experts and practitioners together to exchange their experience in cooperative design, visualization and engineering. Over 100 authors from 16 countries and 5 continents contributed to the final program of the conference. We were excited to see contributions from all the aspects of cooperative design, visualization and engineering, as well as cooperative simulation, cooperative learning, cooperative control and many other applications.

We hope that the conference itself was a very first beginning of a continuous cooperative working group effort to promote research and development in this field.

September 2004

Yuhua Luo
Organisation

CDVE 2004 was organized by the University of Balearic Islands, Spain, the International Information Visualization Society, and the Special Interest Group on Cooperative Design and Visualization (SigCDV), Information Visualization Society.

International Program Committee

Conference Chair:
Professor Yuhua Luo
Department of Mathematics and Computer Science, University of Balearic Islands, Spain

Chair:
Professor Dieter Roller
Institut für Rechnergestützte Ingenieursysteme, University of Stuttgart, Germany

Members:
Dr. Katy Börner
Information Science & Cognitive Science, Indiana University, USA

Professor Mary Lou Maher
Key Centre of Design Computing and Cognition, University of Sydney, Australia

Dr. Susan Finger
Civil & Environmental Engineering, Carnegie Mellon University, USA

Professor Bjørn Erik Munkvold
Agder University, Norway

Dr. Michael Koch
Department of Informatics, Technische Universität München, Germany

Professor Weiming Shen
Integrated Manufacturing Technologies Institute, National Research Council of Canada, Canada

Dr. Kurt Kosanke
CIMOSA, Germany

Dr. Ram Sriram
National Institute of Standards and Technology, Maryland, USA

Dr. Francis C.M. Lau
Department of Computer Science and Information Systems, University of Hong Kong, Hong Kong

Professor Chengzheng Sun
School of Computing and Information Technology, Griffith University, Australia

Professor Li Bohu
Beijing University of Aeronautics and Astronautics, China Academy of Engineering, P.R. China

Dr. Nobuyoshi Yabuki
Department of Civil Engineering and Architecture, Muroran Institute of Technology, Japan

Professor Mikael Jern
AVS Ltd., Herlev, Denmark

Dr. Zhang Heming
National CIMS Engineering Research Center, System Integration Institute, Tsinghua University, Beijing, P.R. China
Cooperative Design, Visualization, and Engineering
Luo, Y. (Ed.)
2004, X, 254 p., Softcover
ISBN: 978-3-540-23149-3