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Editors

Franz Pichler

Institut für Systemwissenschaften, Johannes Kepler Universität Linz
Altenbergerstraße 69, A-4040 Linz, Austria

Roberto Moreno-Díaz

Facultad de Informática, Universidad Politécnica de Las Palmas
E-35102 Las Palmas, Gran Canaria, Spain

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Preface

The papers published in this volume present the current stage in the development of Computer Aided Systems Theory (CAST) as seen from the standpoint of systems theory. CAST in the style pursued here has only recently been made feasible: the new generation of workstations together with the methods and tools offered by Artificial Intelligence today allow the implementation of powerful user-driven interactive systems as required for CAST. On the other hand, due to the current tendency to enhance CAD software by theory-based methods for the early phases of design, CAST is urgently needed for CAD Software design. The implementation of CAST software requires many skills: it is rather evident that systems theory itself has to offer a sound methodology suited for implementation. Secondly, the user functions have to be tailored to the specific classes of applications. And thirdly, the man-machine interface has to be designed using the most up-to-date results from cognition research and the field of artificial intelligence.

Most of the papers presented here are written versions of talks delivered at the European Workshop on Computer Aided Systems Theory, EUROCAST '89, organized by the Universidad de Las Palmas de Gran Canaria, February 26 - March 4, 1989. Four papers originated in the CAST Workshop '88, organized by the University of Linz, April 11-13, 1988.

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