

Preface

The proceedings contain papers accepted for the 17th ISPE International Conference on **Concurrent Engineering**, which was held in Cracow, Poland, September 6-10, 2010.

Concurrent Engineering (CE) has a history of over twenty years. At first, primary focus was on bringing downstream information as much upstream as possible, by introducing parallel processing of processes, in order to prevent errors at the later stage which would sometimes cause irrevocable damage and to reduce time to market.

During the period of more than twenty years, numerous new concepts, methodologies and tools have been developed. During this period the background for engineering/manufacturing has changed extensively. Now, industry has to work with global markets. The globalization brought forth a new network of experts and companies across many different domains and fields in distributed environments. These collaborations integrated with very high level of professionalism and specialisation, provided the basis for innovations in design and manufacturing and succeeded in creating new products on a global market.

Although CE has diversified in many ways, its idea and methods are now prerequisites for every engineer and company now. No matter how diversified the current CE may be, there is certainly a direction common to all these CE researches and applications. The reader will find it as a main stream of most of the papers contained in this book that they are looking into the direction of a human, i.e., designer as a human, engineer as a human, customer as a human, and even a knowledge engineer as a human, although each paper deals with different issues. This main stream is reflected in session organization as well, design knowledge utilization and knowledge engineering, product design and development: lean product development, human centric product design and development, advanced manufacturing and mass customization, advanced manufacturing.

The conference is titled **“New World Situation: New Directions in Concurrent Engineering”**. “New World Situation” is a fact. “New Directions in Concurrent Engineering” is our hope to establish new directions in the greatly and rapidly changing world of CE. We sincerely hope the book will serve to our readers to find CE in his/her new direction which will work in his/her own environments.

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New World Situation: New Directions in Concurrent
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