Welcome

Welcome to Nagoya, Aichi, Japan for the 3rd International Conference on Leading Edge Manufacturing in the 21st Century, entitled LEM21-Nagoya, organized and sponsored by both the Manufacturing and Machine Tool Division, and the Manufacturing System Division of the Japan Society of Mechanical Engineers (JSME).

The city of Nagoya is located geographically in the heart of Japan, surrounded by beautiful mountains and a bay with the largest seaport in Japan. The conference site, the Port Messe Nagoya, is located in the center of the Nagoya seaport. Aichi prefecture is the hub of the manufacturing industry in Japan, particularly for automobiles, machine tools, aircraft, and porcelain, as well as agricultural products. The new Chubu international airport located off the coast of Nagoya commenced operation in the spring, this year, with 24-hour service.

EXPO 2005 AICHI, which was the first World Exposition to be held in the 21st century, concluded just last month with outstanding success, and attracted more than 22 million participants. The message of the EXPO was “Nature's Wisdom,” from a point of reflection off the 20th-century society, where mass-production and mass-consumption were commonplace, and during which global warming and a shortage of natural resources were anticipated trends. Various projects that attempt an environmentally friendly coexistence with nature were presented in the EXPO in order to create a new direction for humanity, which is both sustainable within and harmonious with nature.

Manufacturing contributes significantly to the human race’s global culture, as well as material wealth but is based however, on limited natural resources. We have to think about a sustainable global society today from the manufacturing point of view in this conference, LEM21-Nagoya. The previous conferences were held in Tokyo in 1997 and Niigata in 2003 with great success, sponsored by the JSME. This conference will provide an interdisciplinary forum for the exchange of information on the latest cutting-edge developments in manufacturing. Two plenary speeches will focus on two typical industries in this area, that is, automobile and machine tool. More than 220 selected papers will be delivered in seven large rooms. A plant tour to Motomachi plant and the Toyota Kaikan Exhibition Hall of Toyota Motor Corporation, a welcome party and banquet, and an evening seminar & technical exchange party associated with the Japan Machine Tool Builders' Association, as well as technical lecture
meetings will be held, where person-to-person interchange is expected and encouraged. At the same site, a technical exhibition called Mechatronics Technology Japan 2005 (MECT2005) will be held during the same period.

On this occasion, we would like to focus on the potential of engineering, from the manufacturing point of view, for enhancing our lives and simultaneously caring for the environment. Around the world, there is a common proverb “seeing is believing”, and we encourage you to enjoy this conference through participation in various events and exciting discussions about future manufacturing technologies and systems.

I would like to express my deepest thanks to all members of the Organizing Committee, Program Committee and Nagoya Committee for their cooperation in preparing the Program and the Proceedings. I also express my sincere thanks to the Nagoya Convention & Visitors Bureau for their financial support. THANK YOU!

Professor Yoshiharu Namba
Chair of LEM21-Nagoya 2005 Organizing Committee
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