

2000 Micromachine Asia Mission

During the Micromachine Asia Seminar, we visited related institutes in each country and exchanged views with the respective representatives as reported below.

SIRIM Berhad

Location: Kuala Lumpur, Malaysia

Date: November 20 (Mon)

Attended by: Dr. Mohd Shazali Hj Othman, Mr. Yahaya bin Ahmad, et al.

SIRIM Berhad is a Malaysian government institute founded in 1975, and has been responsible for the standardization of industrial technologies and R&D activities. In 1996 it was incorporated though owned by the Malaysian government. The institute also offers assistance for technical transfer to small and medium sized companies. The institute also takes great interest in providing technological assistance to small and medium sized companies.

We visited a computer training room, machine shop, and show room, where prototypes of automobile battery chargers, welding robot jigs, and draft machines for batik (cloth) were exhibited. The representatives told us that the institute was willing to include micromachine technology and other state-of-the-art technologies in their activities on the condition that such technologies would support businesses.

Gintic Institute of Manufacturing Technology

Location: Singapore

Date: November 24 (Fri), 2000

Attended by: Dr. Wang, et al.

Gintic is an institute on the premise of Nanyong Technological University in the outskirts of Jurong City which is about 20 km west from Singapore City. The research division consists of three sections, Automation Technology, Manufacturing Technology, and Process Technology sections. The institute currently has 375 staff members (70% of them are researchers) and is operated with a 60 million dollar annual budget for research projects.

Nanyong Technological University

Location: Singapore

Date: November 24 (Fri), 2000

Attended by: Dr. Miao Jianmin, et al.

The Micro Machine Laboratory of Nanyong Technological University was established as an attached laboratory to the Mechanical Engineering Department of Nanyong Technological University three years ago. The laboratory has 12 researchers, 5 research fellows, and about 20 students. Their 200-m² clean room is equipped with the complete set of equipment necessary for MEMS. Researches related with acceleration sensors, fluid devices, optical devices, TiNi micro grippers, etc. are being conducted. The achievements of this laboratory will serve the country greatly from now on.

The National University of Singapore

Date: November 24 (Fri), 2000

Attended by: Prof. Francis E. H. Tay

We visited Dr. Francis E. H. Tay's MEMS Laboratory in the Mechanical Engineering Department of the National University of Singapore. At the MEMS Lab we were briefed on their researches on the microgyro using tunnel phenomena, micropositioner, micropump with a bimorph actuator (targeted at insulin medication application), and oscillatory pressure sensor. The laboratory has obtained a lot of patents for oscillatory microsensors. For manufacturing sensors, the laboratory uses Cronos' foundry service.

Economic Development Board

Date: November 24 (Fri), 2000

Attended by: Mr. Wong Peng Wai, et al.

We visited the Economic Development Board (EDB) and exchanged views and related information with the representatives on micromachines and MEMS. EDB is an organization under the Singaporean Ministry of Trade and Industry.

The meeting session was not only participated in by EDB staff but also a lot of people from universities, research institutes, and companies related with this technology. They explained the state-of-the-art technology development in Singapore and the commercialization plans of new technologies including micromachines/MEMS were discussed.



Tour to SIRIM



Tour to GINTIC