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Thoughts on the New Year



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As we greet the year 2009, I would like to wish everyone a Happy New Year, and to share some thoughts at the beginning of this new year.

The past year was a turbulent one for the Japanese economy. Increases in the price of crude oil and rare materials, which had been a concern for the past few years, continued apace. This put pressure on company operations and people's daily lives, and highlighted the all too well known fragility of the industrial infrastructure and lifeline of Japan, a country with a dearth of energy resources and raw materials. Then financial instability on a worldwide scale occurred, caused by the long-feared collapse of subprime loans in the United States. The resulting turbulence seems unlikely to be resolved easily. Viewing these trends, what I feel anew is the peril posed by an economy that is not tethered to reality. As an industry, Japan must have creative products with an appeal unrivaled by those of other countries, constituting an economic foundation that is based on actual circumstances.

The Micromachine Center (MMC) conducts a variety of activities aimed at establishing key technologies relating to micromachines, MEMS and other micro/nano fields and providing support for the continued growth of the MEMS industry, as well as strengthening the international competitiveness of Japan's domestic industry and contributing to the creation of the abundant society of the future.

The activities of the Micromachine Center during the past year as noted in the "Topics" section begin with the Project to Develop Next-generation Device Manufacturing Technologies that Fuse Different Fields, otherwise known as the Bio Electro-mechanical Autonomous Nano Systems (BEANS) Project. This major project is being conducted for the next five years through collaboration among industry, academia and government, with the goal of developing the technical infrastructure needed to create third generation MEMS devices. 18 companies, 12 universities, two research institutes and three other organizations are participating in the promotion of this project. An unprecedented research management organization has been established with "integration" and "openness" as its watchwords, in order to achieve what the Ministry of Economy, Trade and Industry calls an "Innovation Superhighway." In addition to future application fields, third generation MEMS devices are expected to find applications in a wide range of fields including the environment and energy, safety and security, and health and medical care. Third generation MEMS are expected to raise the level of the market and achieve market expansion through the creation of new devices that will support a multitude of industrial fields in Japan.



This year's annual combined exhibition, MicroNano 2008, was held July 29 to August 1 at Tokyo Big Sight. As in the case of last year's exhibition, the event attracted record attendance (14,000 attendees, a 13% increase over the previous year). This provides additional evidence of the tremendous interest in this field from various sectors.

With regard to activities to promote standardization in the MEMS field, Working Group 4 (WG4) of Technical Committee 47 (TC47, semiconductor devices) of the International Electrotechnical Commission (IEC), the organization charged with reviewing the issue of MEMS standardization, was upgraded to a subcommittee (SC47F) last June, and Japan became the organizing country. This increased the latitude for MEMS standardization activities at the IEC and established a climate that is expected to stimulate activity in this area. Japan's becoming the organizing country establishes the foundation that will enable the promotion of Japanese-led international standardization activities.

In terms of public relations, a new MEMS Mall has been opened on the Micromachine Center's website. The MEMS Mall introduces activities by various companies in the micromachine and MEMS fields as well as new products and technologies, and is designed to help stimulate business in these fields.

In addition to the examples noted above, the Micromachine Center has promoted a variety of successful projects. I would like to express my appreciation for your constant effort, cooperation and support, without which these achievements would not have been possible.

The Micromachine Center will continue to promote projects aimed at the establishment of key technologies and industries in the micromachine and MEMS field. I hope we can count on your continued understanding and support, and I hope that this year will be a rewarding one for you all.