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# Overview of the Micromachine Center Booth and BEANS Laboratory Booth

## 1. Micromachine Center Booth

### (1) Special 20<sup>th</sup> Anniversary Booth

This year, to commemorate the 20<sup>th</sup> anniversary of Exhibition Micromachine/MEMS, the Micromachine Center will provide a special booth that introduces major topics and reviews the history of the event, showing how it grew from the initial “Industrial Micromachine Exhibition” to become Micro/Nano 2009, one of the world’s major integrated events in this field.

### (2) MEMSOne Booth

This marks the second year since full-fledged MemsONE dissemination activities began. In February of this year, version 2.0 was released, with improved analysis capabilities, ease of operation and stability.

To encourage dissemination, a special corner will be set up at this exhibition for consultations, and a version with a limited number of licenses will be provided at no charge. Detailed information will also be provided through video screenings, demonstrations and so on.

### (3) MEMS Mall Booth

This booth will offer exhibits relating to MEMS Mall, which makes MEMS products and technologies available on the Internet. MEMS Mall opened in October of last year with the participation of the member companies of the MEMS Industry Forum, and starting this April participation was opened to other companies for a fee (with companies exhibiting at Exhibition Micromachine/MEMS given preferential status). The booth features panels showing the products and services offered by MEMS Mall as well as participating companies and methods. There are also computers that visitors can use to visit the mall.

### (4) MEMS Foundry Network Booth

This booth provides information about the MEMS Foundry Network that is made up of MEMS Industry Forum member companies. It also features MEMStation, a help desk for submitting items for prototyping. MEMStation makes it easy for even users who do not have manufacturing equipment to conduct MEMS manufacturing.

### (5) Standardization Booth

This booth presents the current status of standardization in the MEMS industry. To promote international standardization activities in the MEMS industry in a more strategic manner, the Micromachine Center has established a roadmap for MEMS standardization, and standardization activities are being conducted in accordance with this roadmap. The booth showcases the MEMS nomenclature and definitions that have been proposed and established, tensile test methods for MEMS thin membrane materials, standard test specimens for tensile tests, and fatigue test methods for MEMS thin film materials, in addition to international draft standards that are currently being reviewed or are under development.

## 2. BEANS Booth

One year has passed since Process Integration Project for Hetero-Functional Integrated Devices (BEANS Project) was launched in July of last year. This exhibition marks the full-fledged debut of the BEANS Project at a public venue attended by interested parties in the MEMS area from Japan and other

countries. The booth is sponsored jointly by the BEANS Laboratory and the New Energy and Industrial Technology Development Organization (NEDO).

The exhibition will be significant as a venue for unveiling the achievements of BEANS Project activities during the past year. More importantly, it is an opportunity to promote widespread awareness of the BEANS Project itself and give visitors a sense of the dedicated enthusiasm of the participating researchers. The content of the exhibits will reflect both of these objectives.

The green booth will have zone partitions decorated with the “beans” that are the project’s symbol. In addition, the booth will be enclosed by five green message stands that present a general overview of the BEANS Project. The side of the message stands that faces the passageway will present an overview of BEANS headquarters, while the other (inner) side will provide personal profiles of the researchers involved in the project and the positioning of the individual research centers in Kyushu, Shiga, Tsukuba and Komaba.

The inner walls of the booth will be dedicated to posters and exhibits with particular emphasis on promoting and outlining the research efforts of the individual centers: Life BEANS, Life BEANS Kyushu, 3D BEANS, 3D BEANS Shiga and Macro BEANS.

The main attraction of the booth will be the various exhibits placed in the very center of the space so as to enable many visitors to gather around them for viewing. These exhibits will present the technical details of microfabrication processes that are difficult to explain using only posters and the like. They will also include biotech exhibits that are expected to attract many visitors as a result of TV and newspaper coverage in January and June of this year, and exhibits relating to large-area film deposition and fibrous nanostructures that were covered in the July edition of Nikkei Microdevices. The loom for laboratory use that is also scheduled to be exhibited is sure to be seen as a breath of fresh air by those in the MEMS industry.

The essential mission of the BEANS Project is to develop the manufacturing process technologies that will lead to the achievement of next-generation devices, and so the actual work that researchers are engaged in day and night is fundamental process development that is by no means glamorous. For this reason, it is not the essential purpose of the project to introduce exciting futuristic devices, and unavoidably the content tends to consist of unglamorous posters explaining technical processes. However, nothing will be gained if visitors do not come to see the exhibition, so we focused our efforts on presenting in visible form those process development efforts that are extremely important but essentially difficult to view. Visitors are invited to come and see for themselves whether our efforts were in vain or (hopefully) we succeeded beyond our wildest dreams.

In conjunction with the exhibit content, the 3rd BEANS Project Seminar will also be held during the afternoon of July 30 at a special venue set up next to the booth. As this will be first seminar to give a full picture of the BEANS Project, we hope that all interested parties will attend.