

## Introduction of 2010 IEEE Systems Packaging Japan Workshop

### 1. History

IEEE Systems Packaging Japan Workshop will be held next year, from Jan. 28 to Jan. 30, at Hakone. This workshop has a unique characteristic. It is held every two years in Europe and in Japan alternately. It is held in a closed environment, where photographs and recording are prohibited, with neither manuscripts nor minutes of proceedings published. Participants are recruited from engineers directly involved in development activities, who belong to research institutes, universities and corporations that represent the world's electric, electronic and communications industry. To presentations made during the Workshop, discussion time is arranged to exchange interactive, frank and active questions within the participants.

**This workshop, which was established as IEEE Japan Computer Packaging Workshop in 1986, has a unique establishment history as well.**

IEEE Computer Packaging Workshop has made a precedent start in the US in 1976, with participants from manufacturing companies of large-scale computers, which were developed by utilizing most-advanced device technology and packaging technology. Mr. Watanabe, then Head Manager of NTT Atsugi Office, and Mr. Kanai, then Executive Director of NEC, participated in the aforementioned event held in the US, and worked as the originator in Japan. The two gentlemen call for participation, and responded to their calls were 8 companies - NTT, NEC, Hitachi, Fujitsu, Mitsubishi, Oki, Toshiba and IBM-Japan. From 2000, this organization was renamed Systems Packaging Japan Workshop, and it became a colloquium where system packaging technology of not only computers but also system packaging technology, including consumers and industry-related, are being discussed, emphasizing on package designing from the system design perspective.



Figure Committee Member in The 1st Computer Packaging Japan Workshop

A snapshot of "The 1st Computer Packaging Japan Workshop" held on January 27–30, 1986 at Oiso Prince Hotel. Participants commented that they were very much stimulated by this new trend, where in those days, for instance, announcements that were made in the US were "Impact of LSI on System Packaging" (the 4th workshop / 1980). Third person from the right is Mr. Makoto Watanabe, then Head Manager of NTT Atsugi Office, who acted as the General Chair. 36 participated from the US and Europe, and 43 participated from Japan.

Table List of Place and Organizer for each Workshop

	Year	Venue	Organizer
1st	1986	Oiso town, Kanagawa	NTT
2nd	1988	Oiso town, Kanagawa	NEC
3rd	1990	Oiso town, Kanagawa	Hitachi
4th	1992	Oiso town, Kanagawa	Fujitsu
5th	1994	Tsukuba city, Ibaragi	Mitsubishi
6th	1996	Tsukuba city, Ibaragi	Oki
7th	1998	Tsukuba city, Ibaragi	Toshiba
8th	2000	Hikone city, Shiga	IBM Japan
9th	2002	Mitaka city, Tokyo	NTT
10th	2004	Hakone town, Kanagawa	NEC
11th	2006	Hakone town, Kanagawa	Hitachi
12th	2008	Hakone town, Kanagawa	Fujitsu
13th	2010	Kyoto city, Kyoto	Mitsubishi, Renesas

## 2. General Outline of the Workshop

Since photographs and recording are prohibited, the presenter side is willing to introduce the most advanced technology incorporated in products unsparingly, using pictures and diagrams. The most advanced technology in various areas of that moment, for instance, packaging technology such as C4 (controlled collapse chip connection), multi chip modules, ceramic modules, multilayer printed circuit boards, fine-pitch interconnection technology, or high-speed signal transmission technology, or mechanical technology such as air/water-cooling technology, power supply, noise management... has continuously been introduced. This attracted a large number of people to participate in this event – presenters would be proud of their presentation and listeners would be excited about the opportunity to be exposed to information that could only be available at this Workshop.

In presentations, the common attitude is that presentations go beyond simply introducing elemental technology. In the Workshop, what become the major discussion are selection of elemental technology that should be adopted and trade-off to consolidate mutual elemental technology on a system-level, beginning with organizing challenges that need to be considered and resolved on system-level in the process of developing products traditionally. Therefore, all participants in the Workshop, whether as the presenter or the questioner, always bring home the uppermost delight and precious experience – that is, to discover engineers, in a sense who are rivals, who share the same distress in developing products. This discovery goes beyond the bounds of organizations - enabling participants to engage in a live conversation with those engineers.

In addition, the site for discussion is not limited to presentation meeting rooms. Within the three-day session, official dinner, which is hosted by the Workshop, is scheduled twice. In addition, tours outside the site are organized. In these opportunities, participants are free to whether continue engineering discussions, or become personally acquainted with other participants. Please feel free to make the most of the three-day session.

