

## A brief report on historical events and activities in Japan

Akihiko Yamada, September 21, 2012 (V3)

### (1) IEEJ History Committee technical meeting held on September 3, 2012

The meeting was held at Kogakuin University, in Shinjuku, Tokyo. Following eight papers were presented.

- M. Kimizuka, “History of Magnetic Recording and Tape Recorders”
- M. Ohnishi, “Historical Development of Electric Washer Technologies in Japan”
- Y. Hirota, “Sakizou Yai; An Inventor of Dry Cell Batteries”
- A. Yamada, “Akira Nakashima’s Switching Theory and its Effects on Later Researches”
- A. Yamada, “On Parametron and Parametron Computers”
- K. Kurihara, “Break-even Plasma Test Facilities JT-60”
- S. Shirakawa, “Recognition of IEEJ Activity, Nuclear Power Generation and Electric Power Energy After Large Disasters of East Japan”
- A. Nakagawa, “How IGBTs\* Were Developed in Early Stage” (\* Insulated Gate Bipolar Transistor)

Sakizou Yai invented the world’s first dry cell battery in 1887. “Dry cell battery” is a literal translation of the “Kan-denchi” (乾電池) in Japanese. Akira Nakashima built a logical algebra equivalent to Boolean algebra and published with his colleague a paper on switching theory based on his theory in 1936. C. E. Shannon published a similar paper in 1938. Parametron is a logic element invented by Eiichi Goto of University of Tokyo in 1954. 25 kinds of parametron computers were developed in Japan in late 50’s and early 60’s by universities, research laboratories and computer manufactures. Most of them were marketed.

### (2) 2012 Award Ceremony of the Registration of Essential Historical Materials for Science and Technology at National Museum of Nature and Science, Tokyo

The registration program of Essential Historical Materials for Science and Technology (nickname: “Future Technology Heritage”) started from 2008 at National Museum of Nature and Science (NMNS) to promote the preservation of important historical materials. This year the award ceremony was held on September 11, 2012 at NMNS in Ueno, Tokyo.



Poster Exhibition of Future Technology Heritage at National Museum of Nature and Science, Tokyo



The first LP record in Japan made by Nippon Columbia in 1951 registered as Future Technology Heritage

21 artifacts were registered including the first Japanese vinyl LP record manufactured by Nippon Columbia in 1951 and the first stereo cassette player “Walkman” TPS-L2 built by Sony in 1979. So far 113 artifacts have been registered. NMNS is now holding a poster exhibition of Future Technology Heritage in Ueno, Tokyo. For details, please refer to the following:

<http://sts.kahaku.go.jp/english/material/index.html>

**(3) MADIC-IIA transistor computer manufactured by Matsushita Communication Industrial Co., Ltd. (now Panasonic Mobile Communications Co., Ltd.)**

Wakayama University contacted IPSJ and told they preserve a MADIC-IIA transistor computer system consisting of a CPU manufactured in 1963, a Friden Flexowriter, photo tape readers and a paper tape punch. MADIC-IIA is the first Panasonic’s commercial computer. It is a small binary machine with a magnetic drum memory. The first machine was built by Matsushita Communications Industrial Co., Ltd (now, Panasonic Mobile Communications Co., Ltd) in 1961 and shipped to JEIDA\*\* Kansai Computer Center in Osaka. IPSJ History Committee members visited Wakayama University on July 18, 2012, to investigate the machine. Panasonic doesn’t keep the MADIC-IIA any more. (\*\*Japanese Electronic Industry Development Association)



Panasonic’s MADIC-IIA computer built in 1963 and preserved at Wakayama University

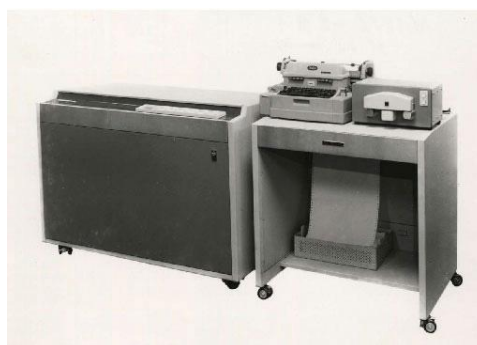


Photo of an original MADIC-IIA

**(4) IEEE Japan Office Opening and Reception**

IEEE Japan Office was established last year. The office opening and the reception was held on September 20, 2012. IEEE President Gordon Day hosted the reception. 2013 IEEE President Peter Staecker also joined it. President Day reported the current status of the IEEE and mentioned recently dedicated Milestones awards in Japan; G3 facsimile standardization, the first field emission electron microscope and the first direct broadcast satellite service. He also reported the first two IEEE Milestones awards in India were dedicated this month.



IEEE President Gordon Day at IEEE Tokyo Office opening reception in Aoyama, Tokyo

