

STATUS REPORT FROM IEEJ
- Activities after Maui-I -

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0. Introduction

HEE (Committee on History of Electrical Engineering) was established in 1990 in IEEJ. History Committee, History Center of IEEE and HEE held the Maui Meeting in 1995. The participants made a productive discussion and reached in the fruitful results, which were summarized as Maui Declaration. After this meeting HEE has been very keen to develop its activities in historical studies. These are introduced as follow in this report.

1. Reflection of Maui-I

After the last Maui Meeting, following up the Maui Declaration, HEE publicized the discussion results at several magazines and newspapers. For example, the journal of IEEJ introduced the meanings of the Maui Meeting with one page summary in 1997. Denki-Shinbun, "News Paper of Electrical Industry", published an issue on our meeting in 1996.

Several number of panel discussions and lectures on history of electrical engineering have been held following the Maui Declaration:

ICEE (International Conference on Electrical Engineering) was held in 1997 in Matsue, Japan. In this conference HEE proposed a panel discussion on "Societal Status and New Role of Electrical Engineers," under the moderation of Dr. Suzuki, H. Mr. E. Pugh and Dr. F. Nebeker were invited from IEEE History Committee and joined in the panel. The members of IEE, Korea, and China also attended to this panel and discussed on their activities, especially history studies.

Another ICEE was held in Hong Kong in 1999 and continued the history related panel, under the co-moderation of Dr. Nam M-H and Mr. Arakawa, F. Prof. C-C. Liu was invited from IEEE PES History Committee and joined to this panel discussion. IEEJ, Korea and Hong Kong sent their society members to this panel and exchanged information on Technology Transfer.

A lecture was carried out by Dr. B. Finn of IEEE History Committee at IEEE Tokyo Section Meeting in Tokyo in 1997. The subject was on science museum and archives. An IEEJ member supported the translation and explanation for Japanese attendants.

These events were so successful that these activities are developing further.

2. Activities of IEEJ after Maui-I

After the Maui-I technology history studies of IEEJ were accelerated and recorded as follows:

2-1 Our first technical report of the HEE published by the first investigation sub-committee, "History and Current Condition of Historical Study on Electrical Engineering," headed by Dr. Tanaka, K., was awarded as a best technology report of a year 1998 from IEEJ.

2-2 Study Meetings were held 11 times and 115 technical papers were presented on history studies during these three years from 1996 to 99.

2-3 Oral history interviews were carried out to 9 persons by HEE in wide technology areas, following 12 interviews conducted by the Sub-Committee on Domestic Innovation History.

2-3 Several investigation sub-committees were established following the first sub-committee. One is on industrial technology. "Domestic Innovation History of Electrical Engineering" finished its work in 1997. The investigation sub-committees on education was organized and concluded as "History of Electrical Education" in 1998. Study on the achievement in technology development by the public initiative is now conducted under the title of "National Laboratories' Role Performed in the Development of Electrical Engineering."

The investigation sub-committees on "Exhibition and Maintenance Guide of historical Materials" has concluded its study in 1999. The study by the investigation sub-committees on "History of Silicon Steel Sheets in Japan" is now on going. This committee studies the manufacturing and application of silicon steel which is developed in Japan after the world war II.

Research on Hyper Media Application on Historical Data Base was done and one prototype software was developed for the demonstration for the future study. We are now looking for a sponsorship.

3.Related Activities in Japan

3-1 History of technology diffusion and transfer was investigated by one WG of JSPS (Japan Society for the Promotion of Science). Technology conversion from military to civilian field was investigated after the world war II. And the success and failure experiences of the technology transfer from Japan to other countries were investigated. Some HEE members were involved in this study from 1993 to 1998.

3-2 Japan Accreditation Board of Engineering Education (JABEE) was established in Nov. 1999. In IEEJ a related committee was established and acts as a referee for the accreditation. Our members of HEE are involved in this activities.

3-3 One book titled "Technology Creation (Gijyutsu-Souzou in Japanese)" was published in 1999 by the co-authorship of Dr. Ishii, S. and Mr. Arakawa, F., thanking to the investigation sub-committee report on "Domestic Innovation History of Electrical Engineering."

4. Future Scope for Knowledge Creative Century

The first civilization in the world was said to be established in Asia more than 5000 years ago and transmitted to Europe about 2500 years later. It is also transferred to America about some hundreds years ago. Now the center of civilization will move back again to Asia. But this process is not just coming back to Asia. It is not a simple cyclic repetition. Because, during the cycle the quality of civilization was changed and up-graded further. Then this process is understood as a spiral movement.

Civilization has been established on "information" in the 20th century. In the coming century we will live in the knowledge and wisdom based society. There are two types of knowledge, being tacit and explicit. The Westerns are customized to deal basically with explicit knowledge, while the Orientals fond of using tacit knowledge. In order to promote knowledge creation both types of knowledge should be integrated. For this purpose we should promote the history study, as it will accumulate our knowledge on technology. And also the Western and the Oriental methods of knowledge creation shall be integrated to establish the better society in the world.

We are here in South East Asia and getting together with Western people and Oriental one. Maui-II meeting is a good chance to initiate this spiral process and promote the encounter of these two types of knowledge. Knowledge creation and integration should be carried out for our future sustainable world.