

Report on the 52nd Spring Meeting (2005) of The Japan Society of Applied Physics and Related Societies

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The 52nd Spring Meeting (2005) of The Japan Society of Applied Physics and Related Societies was held over four days, from March 29 (Tues.) to April 1 (Fri.), 2005, at Saitama University (Saitama City). For the most part, the meeting was favored by good weather; there were no major incidents, and the meeting as a whole was a great success. We feel that this success is due entirely to the selfless efforts of Mitsuo Tasumi, President of Saitama University, Susumu Takada, the Chairman of the Local Executive Committee, and the Vice-Chairman, Satoru Toyooka, along with the other members of the Riken Local Executive Committee and the staff of Saitama University. We would like to express our deep appreciation to all those involved for their valued assistance.

At this year's meeting, there were a total of 4,803 research papers presented, with 4,157 regular lectures and 464 symposiums (calculated at 15 minutes each, which is the time allowed for regular lectures). Lively discussions took place at the 54 lecture venues as well as at the two poster session venues. Incidentally, there were a total of 4,801 papers (4,275 regular lectures and 526 symposiums) at the meeting held last spring at the Tokyo University of Technology; this means that although the number of regular lectures dropped by more than 100, there were more symposiums, so the total number of papers presented was about the same. Figure 1 shows data for meetings held since 1994. The number of lectures at spring meetings increased by about 150 per year from 2000 until last year, but recently, we seem to have reached a saturation point.

The number of registered participants, on the other hand, reached 9,183, which is less than the 9,459 from last year, but those responsible for the planning and operation of the meeting were very relieved to see that this year's meeting drew more than 9,000 participants. We believe that one of the main

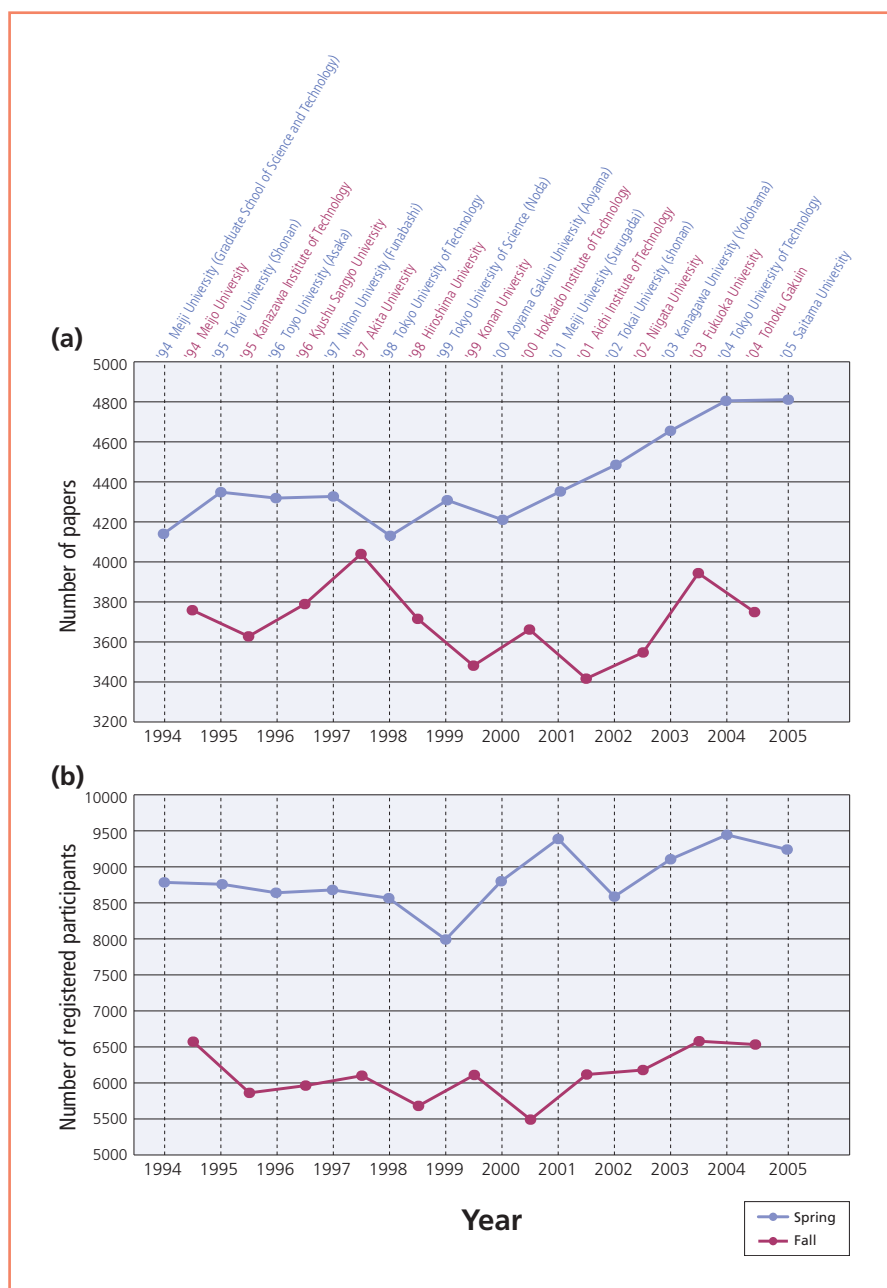


Fig. 1: Movement in (a) Number of papers and (b) number of registered participants

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reasons for the drop in the number of participants by 300 compared to last year was that this meeting coincided with this year's meeting of the American Materials Research Society. Another factor is that the meeting went until April 1, which is the beginning of the fiscal year for Japanese companies, so this might have been inconvenient for some members.

This year, the number of papers fell or remained level in many of the major session categories, but there were 182 papers in the III-V Nitride Crystal classification of Crystal Engineering, which is more than an 18% increase over the meeting last spring (154). At the Joint Sessions, there were lively discussions on a number of topics, including carbon nanotubes, spin electronics, and zinc oxide functional materials.

When we received papers in electronic format, we requested that the presenters indicate which of four key fields that paper was most closely related to. The results, by key field, were: Nanotechnology: 1,693; Telecommunications: 489; Life Sciences: 154; and the Environment: 142. One of the most notable features of JSAP is that papers related to Nanotechnology accounted for more than 40% of the total, and were distributed across a wide range of session categories. (Fig. 2)

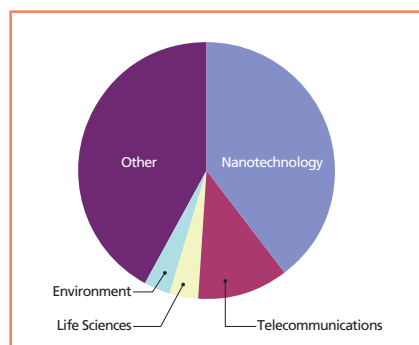


Fig. 2: Lectures related to 4 key fields

In addition to the regular lectures, symposiums were held on 36 themes, and there were panel discussions and presentations by invited lecturers on recent topics.

This year, events were held in various regions to commemorate the "World Year of Physics," and a special lecture was held at the spring meeting as well, on the theme of "Applied Physics Transcending Limits." Distinctive and meaningful presentations by President Mitsuo Tasumi of Saitama University, Hitachi Fellow Akira Tonomura, and Tokyo University

Professor Motoichi Otsu left a deep impression on the standing-room-only audience of 200 listeners. This year's meeting also featured commemorative lectures by recipients of the JSAP Achievement Awards. Discussions of pioneering research in silicon MOS devices by Takao Sugano (Administrative Director, Toyo University, and Honorary Professor at Tokyo University) and pioneering research in beam application technologies by Susumu Namba (Honorary Professor at Osaka University and Honorary Researcher at Riken) carried very strong messages from these two individuals who have led the boom in the Japanese semiconductor industry. Other events included commemorative lectures by recipients of the Optical and Quantum Electronics Achievement Award and the Electronic Integration Technology Achievement Award, the 36th JSAP School, which focused on the theme of "The current state of technologies that support advanced medicine, and developments for the future," and the 4th Symposium on Equal Participation by Men and Women, on the theme of "Serious efforts targeting Joint Participation by Men and Women - Thinking about Balance in Work and Life," which was followed by active discussions. Michio Iguchi (Argonne National Laboratory), who for many years has been an editor for the Journal of Applied Physics, presented a special lecture entitled "English Thesis Course for Students, graduate students, and researchers: Expressions easily mistaken by Japanese." Students spilling out into the hallways could be seen taking notes as they listened intently.

During this year's meeting, the "17th Scientist Awards for the Presentation of an Excellent Paper" were presented to 34 individuals selected through a careful screening process from among 561 of the 3,372 regular lectures presented at the autumn 2004 meeting by young researchers aged 33 years and under, for which applications had been received in advance. Chairman Hiroyuki Sakaki presented the awards along with a commemorative gift, praising these young researchers for their achievements and offering words of encouragement for their future endeavors. Starting from this year, the recipients of the Scientist Awards for the Presentation of an Excellent Paper were asked to give a commemorative lecture. Like the regular lectures, these lectures were limited to 15 minutes, including a Q&A session, but we are confident

that the presentations by the invited lecturers at these sessions will provide even further encouragement to other young researchers.

At the exhibition, 160 companies displayed new laboratory equipment, texts, and other products, and there was a special exhibit by the JSAP Terahertz Electromagnetic Wave Technology Research Group.

Starting with this year's meeting, presentations at all lecture venues are conducted using PCs. At the spring and autumn meetings last year, some sessions were handled in this way on a trial basis, and we conducted a survey to analyze problems that arose in computer connections and reasons why some lecturers did not use PCs for their presentations. As a reflection of the results of this survey and analysis, at this year's meeting, we set up projectors and PCs in all lecture venues, so that the lecturers only needed to bring data on a USB memory device. We prepared two-branch connectors at lecture venues for short lectures lasting five minutes, and prepared two PCs for short lectures lasting four minutes. Many of the presenters were extremely familiar with giving PC presentations, so there were very few problems with equipment connections. Only 60 presentations used OHPs, representing 1.5% of the total.

Advance participant registrations and reservations for the Digest are currently being received by postal transfer or by FAX, but we hope to introduce an Internet-based reception system from the autumn 2005 meeting, in order to further improve services for members.

A child-care room was available this year, as it was last year, thanks to assistance provided by the Committee for Promoting Equal Participation by Men and Women in Science and Technology. We are extremely pleased to see that these efforts have resulted in a steady increase in the number of members who are able to participate in the Society's activities.

For many members, the JSAP Meeting has acted as a gateway to JSAP. Many researchers have become members in order to present the results of their research. We will continue our efforts to offer even more rewarding meetings in the future, and at the same time, with the assistance of all JSAP members, to ensure that these meetings feature even richer and more attractive programs than ever before.

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