In the first half of the fiscal year 2015, signs of improvement of employment and income in Japan were observed. Company management had the wind at its back with decrease in energy cost due to downslide of oil price. In the second half, the TPP negotiation was largely agreed and it has been expected to produce business chances for small and medium-sized enterprises. In 2015, Japan had two good and impressive news: the one is that two Nobel Prizes were awarded to Japanese researchers: the Nobel Prize in Physiology or Medicine to Prof. Satoshi Omura (Kitazato University) and the Nobel Prize in Physics to Prof. Takaaki Kajita (University of Tokyo), and the other news which Japanese were fascinated with was that the Japanese national rugby team won over the South African team in Rugby World Cup. These news were inspiring Japanese people.

In December, FRB announced the policy interest rate rise which created uncertainty whether this announcement acts positive or negative for the world economy. In addition, declines in economy in China and developing countries were becoming vivid which cause increasing global economic uncertainty.

Under these circumstances, APPIE performed all businesses successfully according to the plan thanks to generous supports of members and efforts of people concerned. The general aspects of activities are shown below.

1. Activities for public service
   - Survey and research
     48 meetings in total were held by 19 technical groups in 2015. The number of meetings which single groups organized was 39, among which 4 meetings took place overseas. The number of joint meetings was 4, one of which took place overseas. Looking over the meetings of technical groups, large difference in number is not found in these 3 years. 52 meetings were held in 2013 (45 meetings of single groups and 3 joint meetings) and 49 meetings were held in 2014 (39 meetings of single groups and 5 joint meetings). In 2015, meetings held overseas have increased in number because of ACHEMA 2015.
Technical seminars and technical tours of plants and research centers were conducted along with the meetings as usual though it is not easy to seek places of technical tours.

At the APPIE booth during POWTEX OSAKA 2015, all of 19 technical groups displayed panels illustrating their activities and trend of technology related to the groups. These displays had a good reputation that current state and future trend were well illustrated. The Dust Explosion Committee held a seminar, where the results of committee activities were presented on the following subjects: risk assessment and countermeasure of dust explosion, regulation and safety technology, and overseas rules and standards. The Nanoparticle Safety Committee held a seminar introduced the topics: test of carcinogenic properties of multi-layer carbon nanotube, toxicity of carbon nanotube and carbon black, and risk assessment and control of nanoparticles.

- **Publicity and dissemination**
  
  (1) Seminar and forum

  Seminars of overseas information and technical forums were held where results of research and survey of powder industry and engineering and movement of powder market. Overseas Information Seminars planned jointly by Committee of General Administration and Committee of International Liaison were held twice following the last year; the seminar topics are Vietnam and India. The speakers who have lots of knowledge of these local countries provided peculiar situations and experiences in the countries.

  A special lecture presentation which subject was “human and powder from the view of cosmic scale” took place at POWTEX OSAKA 2015. Besides the special lecture, various forums were held: nano-application and non-crystallization, role of powder in the development of advanced secondary battery, computer simulation and recycling technology, the lecture meeting “guidance of powder technology” for beginners, and the exchange meeting between engineers and researchers “powder network”. All these events had many participants.

  (2) Publication

  News and event information were announced in the APPIE website, the email newsletter and monthly magazine *Funtai Gijutsu (Powder Technology)*. Information released from APPIE reached not only its members but also many unspecified people. As the result of the revision of APPIE
website aiming at client-oriented one, it has a good reputation as a user-friendly website. The APPIE newsletter presented light reading topics, and now some readers contribute notes of impression of the topics and the related information they have.

(3) Consultation service
The technical support corner was set up at POWTEX OSAKA 2015 for consultation service. The number of consultation was 35 during the period of POWTEX (3 days). Industry-Academia-Government Alignment Fair organized by Industry-Academia Collaboration Division was held at POWTEX. The purpose of the Fair was to provide the opportunity of meeting between seeds and needs. 52 seeds were presented from universities and government research institutes. The number of participants on the needs side was 159. The Fair motivated activities of technical guidance and technical cooperation between the participants.

- **Human resource cultivation and education**
  The following seminars and lectures were held for the purpose of continuation of powder technology and promotion of human resource and education.

  **Introductory Course on Powder Technology (I, II, III)**
  The total number of participants was 182 in 3 courses.

  **Early Training Course**
  The total number of participants was 116 in 11 courses.

  **Specialized Courses**
  Organized by technical groups of crystallization, mixing-kneading-forming and classification-sieving
  The total number of participants was 159 in 3 courses.

  **Instruction course of dust explosion and fire safety for elemental level**
  The number of participants was 44.

  **Seminars of overseas information**
  The number of participants was 63 in 2 seminars.

  **Ad Hoc Seminar**
  The number of participants was 44.
Standards

The Standard Powders Committee began to consider the change of the standard of particle size equipment for JIS Test Powder 1 described in JIS Z 8901 so that the standard meets the needs of the times. The committee brushed up the computation data of reliability for Test Powder MBP continuing from the previous year. The committee began to examine test powders which cover the range from 100 micron meter to nano size by adding reliability data of sub-micron test powder FSTP to the data of MBP.

The ISO Mirror Committee held the meeting of ISO/TC24/SC 4 in time with POWTEX OSAKA 2015. Following this meeting, the lecture presentation took place with attendants of the ISO meeting as an event in association with POWTEX. The subject of the lecture presentation was current situation and movement of international standardization concerning measurement of fine particles. 65 people participated in this lecture presentation. The Drafting of JIS Committees submitted the JIS draft of ISO 26824 (Particle characterization of particulate systems - Vocabulary) to JSA, and is making another JIS draft of ISO 13099-2 (Colloidal system-Methods for zeta-potential determination-Optical methods).

The Dust Explosion Committee held introduction course (elemental level) of dust explosion and fire safety in Tokyo. Also, the committee held a seminar on dust explosion in POWTEX OSAKA 2015. The seminar collected 180 participants. Further, the committee commenced the working group dealing with survey and research of overseas safety standards related to dust explosion and fire. In addition, the committee follows up the guideline of explosion protection in factories which has been revised.

International Liaison

The International Liaison Committee renewed the APPIE website. Activities of all committees and technical groups are presented in the new one. The Committee made APPIE annual REPORT 2014 which was sent to overseas partners and powder-related companies. The Committee set up the Japanese Pavilion at IPB 2015 in Shanghai (Oct. 28 to 30, 2015) as usual. Activities of APPIE were shown in a few panels at the Pavilion. A committee member and an APPIE office worker cared the Japanese Pavilion and supported exhibiting APPIE member companies.
2. Other activities

● Exhibition

The 11th POWTEX OSAKA was held from Oct. 14th to 16th, 2015 at Intex Osaka. The POWTEX OSAKA had 616 booths by 196 exhibitors. The number of visitors was 8,568. Visitors slightly decreased compared with the last POWTEX OSAKA in 2013, but we received positive impression from exhibitors that POWTEX OSAKA 2015 was vigorous.

● Production and sale of standard powders

Domestic sales of standard powders declined because of slowdown in sales of cars and electric and electronic goods in Japan. Overseas sales compensated for this decline. As a result, the total amount of sales remained the same level as the previous year. Hot-selling products are powders developed for the test of filters and the test of erosion and toughness, not powders for calibration test.

● Activities for APPIE members

(1) Technical Information Exchange Meetings took place in 4 regions: Tokyo (4 times), Nagoya (3 times), Osaka (4 times) and Fukuoka (3 times). The total numbers of the meetings and participants were 14 and 892, respectively.

(2) Award Committee recommended individuals of APPIE members to the president as candidates of awardees of the following awards:

- Award for Distinguished Contribution to technical group activities,
• APPIE Award,
• POWTEX Award,
• Powder Technology Achievement Award

(3) Human Resource Committee conducted get-together meetings for young people (4 times), and study meeting of system change due to employment extension. There were a brief session of powder industry by Prof. Yamada (Kogakuin University) and a student tour led by young teachers with 98 participants at POWTEX OSAKA.

(4) In Industry-Academia- Government Alignment Fair at POWTEX OSAKA, 4 best seeds awards were selected. On March 7, 2015, “Techno Cafe” was held, where a lecture was given about advanced technology and traditional technology, and participants took free discussion about the topics. Consulting services were provided not only to APPIE members but also to non-members. The number of consulting was 7.

3. Meetings

(1) The 34th General Meeting
   Date: May 26, 2015
   Place: Tokyo Garden Palace
   Attendance of full members: the total 221
   (presence by proxy 182)

(2) BOD Meetings
   1st BOD Meeting
       Date: May 14, 2015
       Place: ANA Crown Plaza Hotel Osaka
       Attendance: the total 31 (27 BOD, 3 auditors, 1 adviser)
   2nd BOD Meeting
       Date: July 31, 2015
       Place: Tokyo Garden Palace
       Attendance: the total 24 (22 BOD, 1 auditors, 1 adviser)
   3rd BOD Meeting
       Date: November 25, 2015
       Place: Kyoto Century Hotel
       Attendance: the total 30 (26 BOD, 3 auditors, 1 adviser)
   4th BOD Meeting
       Date: March 16, 2016
       Place: ANA Crown Plaza Hotel Osaka
       Attendance: the total 32 (30 BOD, 2 auditors)
(3) Autumn Regular Meeting
   Date: Nov. 22, 2015
   Place: Kyoto Century Hotel
   Attendance: 71

(4) Technical Group Liaison Meeting
   Date: Jan. 22, 2016
   Place: Meitetsu Grand Hotel
   Attendance: 71

(5) Chair Person Liaison Meeting of Committees and Divisions
   Date: Jan. 23, 2016
   Place: Meitetsu Grand Hotel
   Attendance: 40

(6) Chair Person Liaison Meetings
   1st (Date: June 24, 2015, Nagoya, 15 Attendants)
   2nd (Date: Sept. 3, 2015, Osaka, 16 Attendants)

(7) EC (Executive Committee) Meetings
   1st EC Meeting
      Date: April 14, 2015
      Place: Tokyo
      Attendance: 10

   2nd EC Meeting
      Date: July 7, 2015
      Place: Tokyo
      Attendance: 10

   3rd EC Meeting
      Date: October 28, 2015
      Place: Nagoya
      Attendance: 9

   4th EC Meeting
      Date: March 3, 2016
      Place: Osaka
      Attendance: 9

(8) Audit Committee Meeting
   Date: April 24, 2015
   Place: APPIE Head Office in Kyoto
   Attendance: 6
4. Number of members

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<td>Admission</td>
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The Association of Powder Process Industry and Engineering, JAPAN

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Translate: Yutaka Tsuji (International Liaison Committee of APPIE)