

Report of the Japanese Section of the Combustion Institute

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Combustion Society of Japan (CSJ) has currently 34 board of directors and 938 active members. Number of member is increasing. Total annual expenditure for operations is 250,000 USD. The regular general meeting is held in June every year at the campus of the University of Tokyo and the interim report on annual activities is released during the Japanese Combustion Symposium in November or December. Regular board meetings are held 5 times a year. The followings are major annual activities in the last two years.

1. Japanese Combustion Symposium

The 52nd Symposium was held in Okayama on December 3-5, 2014 with 595 participants and 275 presentations including 1 plenary lecture and 1 invited lecture. The organization committee was chaired by Prof. E. Tomita, Okayama University. The 53rd Symposium was held in Tsukuba on November 16-18, 2015 with 554 participants and 265 presentations including 1 plenary lecture, 1 invited lecture and 3 keynote lectures. The organization committee was chaired by Prof. M. Nishioka, Tsukuba University.

From 52nd symposium, an announcement of the symposium is noticed in the website of the Combustion Institute to enhance participations from overseas.

2. Review of Advanced Combustion Technologies

Recent trend in combustion science and technology was investigated and reported to the industrial sector for contribution to the improvement of their own combustion technologies. The latest 160 papers related to combustion were reviewed by experts in various fields and

summaries were reported to 25 industrial companies each year at the University of Tokyo on March 10, 2014, and March 9, 2015.

3. Lecture Series on Combustion Fundamentals and its Applications

Lectures are given to industrial combustion engineers and university students. One series of lecture is completed in two years consisting of 6 all-day lectures which include 18 lectures in total from various aspects of combustion and applications. An all-day lecture is given every four months. There were 70 to 90 participants for each all-day lecture.

4. Working Group Activities

CSJ promotes working group activities by CSJ members to promote research of particular combustion related topics. Two working group activities have been completed and one activity is underway.

- (1) Detonation engine (completed)
- (2) Laser breakdown spectroscopy (completed)
- (3) Laser ignition (underway)

5. Summer School

The school has three objectives: to be an eye-opener to engineers and students to both cutting-edge and fundamental research, encourage academic discussions, and cultivate personal exchange. Every school has about 5 lecturers who give current research topics. The 2014 Summer School was held at Ira-lake resort in Aichi on September 1-2 with 46 participants, and the 2015 Summer School was held at Miyajima in Hiroshima on August 31 to September 1 with 49 participants from industry, academia, research organization, and university.

6. Journal

CSJ publishes a high-quarterly journal, *Journal of the Combustion Society of Japan*. This journal has original and tutorial papers. Over last two years CSJ published journal No.175-178 of Vol.56 in 2014, and No.179-182 of Vol.57 in 2015.

7. New Project on Combustion Analysis Platform

CSJ made preparation for a new project to develop a combustion analysis platform for numerical simulation of reacting flows. In 2015, a working group has been organized and a framework of the project under the collaboration between industries and academics was determined. The first term of the two years project will start in 2016.