

**Application form for a Society to join
the Asian Pacific Association for Biomechanics (APAB)**

Date: 31 August, 2015

- Country: Japan
- Name of the Society: Bioengineering Division, The Japan Society of Mechanical Engineers
(Web site) http://www.jsme.or.jp/bio/index_e.html
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• **The history of the society**

The origin of the Bioengineering Division of the Japan Society of Mechanical Engineers (JSME) lies in "Research Group on Biomechanics", which was formed in JSME from 1970 to 1972. This Research Group was founded by Prof. K. Tsuchiya (Waseda Univ.), Prof. Y. Umetani (Tokyo Institute of Tech.) and Prof. I. Tanazawa (Tokyo Univ.) with the aim of mainly researching present situations and future prospects regarding the studies of biomechanics and its related fields. In the field of mechanical engineering at that time when biomechanics and bioengineering were still hardly known, the Group took a significant part in enlightening and consequently developing the field. After this Group was dissolved, the members of this Group had no good chance to gather for discussion of related studies and had to work on individually in some small societies and academies. Meanwhile, the foundation of The Japan Society of Biorheology in 1977 provided an alternative place for many of the members to gather. However, the situation was not perfect for them as the society was focused mainly on biorheology rather than biomechanics or mechanics-based study of biology-related phenomena.

To overcome this situation, in 1985, Research Group on Biomechanics was set up as a section of Japan Society of Medical Electronics and Biological Engineering, and finally an academic place for the study and enlightenment of biomechanics was ensured. Since this foundation, the Group has been successful in enlightening the members to introduce new researches on biomechanics with a regular meeting held in many places in Japan almost every two months. The number of the Group member has highly increased to the present. Motivated by the successful results achieved by the Research Group on Biomechanics, and because more people were getting involved in the activities, JSME decided to have another academic place for people whose background was based more on bioengineering. In The American Society of Mechanical Engineers (ASME), the Bioengineering Division had been founded in 1975. Aiming at further studies and development of the technology of bioengineering based on biomechanics and its related fields, JSME formed Technical Committee on Bioengineering in 1986. Soon after this, JSME employed a Division system, according to the good example of ASME, to facilitate further activity and efficiency, and re-formed the Committee into "Bioengineering Division", which now becomes one of the most active bodies of the field. Here on the introduction of the Division system into JSME, only two other Divisions, "Dynamics, Measurement and Control Division" and "Thermal Engineering Division", were founded along with the "Bioengineering Division".

The rapid development of the studies during the time owed much to Prof. K. Tsuchiya, Prof. Y. Seguchi (Osaka Univ.) and Prof. H. Abe (Tohoku Univ.) for their great devotion and insight into the future. The original forms of many current projects were made at that time.

• **The membership of the society**

The memberships of JSME consist of Members, Student Members, and Corporation Members. "Members" are persons who have good knowledge or experience in mechanical engineering, or who have made significant contributions to the invention of machinery or who have made distinctive achievements in application of invention.

"Student Members" are bona-fide students studying courses related to mechanical engineering.

"Corporation Members" are organizations which are related to an engineering industry and support the aims of the Society.

Initiation fee of a Member is 1,000 Yen, and the annual membership fee is 9,600 Yen. In the case of a Student Member, the initiation fee is 500 Yen, and the annual membership fee is 4,800 Yen.

A member will receive monthly Journal of JSME. Members and Associate members are entitled to register with Five Divisions including Bioengineering Division. The registered member will receive Division's newsletter as well.

• **The benefits of association to APAB**

The Bioengineering Division of JSME was a member of APAB from the foundation. The division held 1st Asian Pacific Conference on Biomechanics in Osaka in 2004, 3rd conference in Tokyo in 2007, and 8th conference in Sapporo in 2015. In association with APAB, the division has enhanced friendship and future-oriented partnership with Asian–Pacific countries. The international partnership in Asian–Pacific region is essential to promote cutting-edge research activities in the associated nations and to strengthen the presence of Asian–Pacific region in worldwide communities like World Council of Biomechanics.

• **Relationship to Biomechanics**

The Bioengineering Division of JSME aims to contribute to academic and industrial societies by providing a forum for researchers in the field of bioengineering and mechanical engineering.

The division holds two annual meetings related to biomechanics. Bioengineering Conference, first held in 1988, has offered great opportunities for researchers and students from the Bioengineering Division to share their cutting-edge research and to promote mutual friendships. Conference on Frontiers in Bioengineering, on the other hand, was first held in 1989, and has encouraged young researchers to participate in the field of biomechanics. The two annual meetings discuss all aspects of biomechanics ranging from scientific research to industrial applications. The division also holds Biofrontier Symposium annually, since 2009, to educate young students with invited talks by world leading researchers from abroad.

The division has held some other international conferences on biomechanics. As mentioned above, the division has held Asian Pacific Conference on Biomechanics in 2004, 2007 and 2015, which is one of the largest conferences on biomechanics in Asian–Pacific region. The Japan-Switzerland Workshop on Biomechanics was held from 2001 to bring together actively participating scientists in the biomechanical communities of Japan and Switzerland for academic discussion and intercultural exchange. The division also has organized many sessions on biomechanics in related conferences, such as the World Congress of Biomechanics, the annual meeting of the Korean Society of Mechanical Engineers, and the Summer Biomechanics, Bioengineering & Biotransport Conference in USA.

The division has published the Journal of Biomechanical Science and Engineering (JBSE), which is an open-access, international e-journal. JBSE is also the official journal of the Korean Society of Biomechanics (KSB), the Taiwanese Society of Biomechanics (TSB), and Asian-Pacific Association for Biomechanics (APAB). The journal covers a wide range of topics in biomechanical engineering and related scientific field.

Approved by 

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