









## **Japan Prestressed Concrete** Institute

公益社団法人 プレストレストコンクリート工学会













# Japan Prestressed Concrete Institute

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#### Message from President Awano

Since its founding in 1958, the Japan Prestressed Concrete Institute (JPCI) has contributed to advancement of science and technology in the areas of prestressed concrete and concrete structures, improvement of membership qualifications, international communication, and to the progress and safety of society. Currently, many prestressed concrete structures are used for bridges, buildings, harbor facilities, water supply and sewerage facilities, etc., in Japan.

JPCI is actively engaged in publication of technical standards for prestressed concrete, publication of journals, certification of engineer qualifications, annual technical seminars and symposiums, and various other activities. We also promote international cooperation with the *fib* (The International Federation for Structural Concrete) and other overseas scholarly societies to share Japanese prestressed concrete technology and related technologies with others around the world and promote globalization. JPCI issues the "National Report of Japan" during the year of the *fib* Congress to introduce notable prestressed concrete structures that have recently been constructed in Japan.

In recent years, Japan has suffered numerous natural disasters, such as earthquakes, large-scale typhoons, and heavy rains, so the establishment and maintenance of safe and secure social infrastructures has become an issue of pressing urgency. I believe that the prestressed concrete technology plays a significant role for reinforcing the resilience of our country against natural disasters, for improving productivity and durability against the backdrop of the decline in

population as birthrates are dropping and the Japanese nation is aging, and for maintaining and renovating massive infrastructure facilities. In 2017, JPCI formulated a "Declaration for Prestressed Concrete Sustainability" with regard to the international Sustainable Development Goals (SDGs) and carbon dioxide emission reduction. Specifically, this declaration outlines the roles, directions for which we must aim, and activities necessary in order to realize sustainable society. It is my hope that the contribution of the Japanese prestressed concrete technology on the international stage will continue to expand in the future.

The JPCI Symposium will be held as a video-conference in October 2021, and in October 2022, will be held in Matsue City, Shimane Prefecture. We welcome participation by numerous researchers and engineers from around the world. JPCI Director Akio Kasuga was appointed Chairman of the fib in January 2021, so we expect that international exchange will become even more active and dynamic in the future.

Dr. Masayuki Awano, the 35th President of the Japan Prestressed Concrete Institute (Professor, Faculty of Architecture, Kindai University)



阿波野昌幸

## ■ORGANIZATION

JPCEA (Japan Prestressed Concrete Engineering Association) which is the forerunner of JPCI has been founded in 1958 to extend prestressed concrete engineering in Japan and contributed over 60 years in prestressed concrete engineering and structural concrete.

JPCI co-organizes the national organization of *fib* (The International Federation for Structural Concrete) with JCI (Japan Concrete Institute). JPCI mainly contributes to activities of national organization in the field of structural concrete. The officer of JPCI becomes a member of the *fib* presidium as a Japanese representative, participates in planning and administrating of events.

## OUTLINE of ACTIVITIES

JPCI was established for the verification, advancement and promotion of prestressed concrete engineering. Our main activities are as follows.

- (1) Research and promotion of prestressed concrete engineering, and spread of those results
- (2) Publication of journal and reports, and providing technical courses and lectures

- (3) Activities related with domestic and international organizations
- (4) Various activities to attain our objects and public interest

## ■ COMMITTEE ACTIVITIES

JPCI organizes working committees to carry out various activities functionally. The following list is a part of working committees.

- Technical Standard Committee
- Journal Editorial Committee
- International Committee
- Committee on Prestressing Reinforcements
- Symposium Organizing Committee
- Committee on Certification of Prestressed Concrete Engineer
- Committee on Certification of Maintenance Engineer for Concrete Structures
- Committee on Selection of Public Offering Research
- Committee on Archives of Prestressed Concrete Technology

## ■JOURNAL of Prestressed Concrete

JPCI publishes bimonthly journal. The journal is recognized as a valuable paper in the field of structural concrete. It gives the latest and useful information of prestressed concrete and structural concrete.



## PUBLICATIONS

JPCI publishes various books on the prestressed concrete engineering. The following are part of publications in English and Japanese.

JPCI and JCI jointly publish "National Report of Japan on Prestressed Concrete Structures" for International *fib* Congress.

"Prestressed Concrete for Beginners" is widely used for education for college students

and young engineers. It is also translated in Korean.

#### **English Publications**

- National Report of Japan on Prestressed Concrete Structures, for The 5th International fib Congress (2018)
- Specifications for Design and Construction of Cable-Stayed Bridge and Extradosed Bridge
- Guidelines for Design and Construction of Grouting for Prestressed Concrete Structures
- Guidelines for Maintenance of Prestressed Concrete Cable-Stayed Bridge and Extradosed Bridge
- Guidelines for Performance Verification of Corrosion-Protective Prestressing Steel for External Cables of PC Box Girder

#### Japanese Publications

- Prestressed Concrete for Beginners
- Specifications for Design and Construction of Prestressed Concrete Structures with High Strength Concrete
- Specifications for Design and Construction of Hybrid Bridges
- Specifications for Design and Construction of Prestressed Concrete Cylindrical Water Tanks
- Specification for Design and Construction of Prestressed Concrete Bridge using PE Sheath for Internal Bonded Post-Tensioning
- Guidelines for improving durability of Prestressed Concrete Structures
- Guidelines for Design and Construction of Prestressed Concrete Structures with High Strength Prestressing Steel

- Guidelines for Inspection of Prestressing Steels and Repair & Strengthening of Existing Bonded Post-Tensioned Concrete Bridges
- Report of Prestressed Concrete Structures on the Great East Japan Earthquake Disaster
- Anchoring Device for Prestressed Concrete (2010)

## **■**SYMPOSIUM

JPCI holds annual symposium on prestressed concrete and structural concrete for advancement of prestressed concrete engineering. Lots of technical papers and technical reports are presented.



## **JPCI AWARDS**

JPCI presents annual awards to eminent papers, structures, technical developments and construction technologies. The awards were founded in 1972 and were given for the first time in 1973. The award is one of

the most prestigious awards in the field of prestressed concrete engineering and structural concrete in Japan.



## **ENGINEER QUALIFICATIONS**

#### (1) Authorized Prestressed Concrete Engineer

JPCI certifies Authorized Prestressed Concrete Engineer to secure the quality of prestressed concrete structures and improve the technical ability of engineers concerned with prestressed concrete engineering. It is widely recognized and required as the qualification of prestressed concrete structure construction for public works. As of April of 2021, more than 5,000 engineers are registered as Authorized Prestressed Concrete Engineer.

## (2) Professional Engineer for Concrete Structural Diagnosis and Maintenance

The load of maintenance of structures has been increasing along with the stock of infrastructure. In such circumstances, JPCI has established the program for the Professional Engineer for Concrete Structural Diagnosis and Maintenance program that certifies the engineers with wide and advanced knowledge for diagnosis and maintenance of concrete structures. The wide activities by Professional Engineers for Concrete Structural Diagnosis and Maintenance are highly expected for the maintenance of concrete structures.

We place more detailed information in the website of JPCI.

http://www.jpci.or.jp