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Cover : This picture shows the Bridge of "R", two-span continuous prestressed concrete cable-stayed bridge, which was completed in April 1993. Applying curved girders enabled cables to be located at one side of the main girder. This design conception realized that both of good appearance and convenience can be consistent. This bridge was given JSCE's 1993 Tanaka Award. Meticulous design with consideration for both structural stability and aesthetics is a new trend in the field of bridge design.

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PREFACE

Research activities on concrete materials and structures are vigorously conducted at universities, research institutes and construction companies in Japan. Such activities cover a wide range of subject areas in the field and vary considerably. Findings and/or conclusions are normally published in technical journals such as the Proceedings of the Japan Society of Civil Engineers (JSCE), the Concrete Research and Technology published by the Japan Concrete Institute (JCI) and several others.

JSCE committees frequently meet to discuss development in concrete technology. Research are conducted and recommendations for design and construction practices are subsequently published by the respective committees. These publications reflect the current state of concrete engineering related to the civil engineering works of Japan, the research results and recommendations thus contribute significantly to the improvement of design and construction methods of concrete structures.

Regrettably these information which would have been equally useful outside Japan are limited to utilization within the country due to the fact that most of the publications are in Japanese.

This situation has led to the publication of a series of **Concrete Library International**, an English publication where translated version of selected technical papers published in Japan and JSCE recommendations are presented. The publication is available twice a year, in June and in December. The selection of articles is made by the following Editorial Committee :

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English Translations of the Best Publications in Japanese Concrete Engineering

In Japan, research in concrete engineering is being actively conducted in universities, public research institutes, as well as in private companies. Through these efforts, there is an abundance of information being published in many technical publications such as the Proceedings of the Japan Society of Civil Engineers (JSCE), the Concrete Journal of the Japan Concrete Institute (JCI), and several others. These publications contain research papers of practical and potential applications to building better concrete structures. In addition, the technical committees of the JSCE synthesize these research findings and come up with recommendations which contribute to the improvement of design and construction methods for concrete structures. Unfortunately, utilization of this wealth of information and exchange of ideas outside Japan have been regrettably limited due to the fact that most of these materials are published in Japanese language.

To remedy the situation and to promote international exchange in the research field of concrete engineering, the Concrete Committee of the Japan Society of Civil Engineers (JSCE) started a series of publications called the *Concrete Library International* with the first volume published in 1983. The *Concrete Library International* which is published twice a year, contains English translation of selected technical papers, committee recommendations and reports. Through these years, the Editorial Committee has continued to put together in English selected materials that reflect the current state of concrete engineering in Japan as applied to civil engineering. The Committee hopes that this publication will provide our international colleagues with an up-to-date information and overall view of the present situation of concrete engineering in Japan.

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