



Recent Major Bridges in Korea

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Summary

During a relatively short period, bridge technology in Korea has recognized outstanding development. Owing to the governmental policy aiming to achieve balanced regional development, unprecedented bridge construction activities are conducted in the peninsula, especially in the southwestern coast to link some of the 3 000 islands with the mainland. Korean bridge engineers are now designing and constructing bridges using domestic technology, which has today reached a level enabling to realize the erection of numerous sea-crossing bridges counting among the longest in the world like Incheon cable-stayed bridge (main span 800 m) and Gwangyang suspension bridge (main span 1 545 m). This paper reviews the evolution of modern bridge construction in Korea and presents major bridges recently erected or to be built. R& D programs dedicated to the advancement of bridge technology are also introduced.

Keywords: bridge technology, sea-crossing bridges, cable-supported bridges, R& D programs

1. Introduction

Despite of its short history of 40 years, the Korean bridge technology recognized outstanding development. The construction of bridges was at first involved as social infrastructure supporting the series of 5-year plans of the governmental policy since 1962 aiming to boost the economy of the country. As a result, the bridge stock of the peninsula increased from 9 322 bridges in 1970 to 22 937 bridges in 2007 and the corresponding developed length extended from 268 km to 1 987 km [2].

It is noteworthy that even if the developed length of the bridges multiplied by 5 times, the bridge stock only doubled. This means that Korean bridge engineering has realized remarkable progress in the domain of long-span bridges such as cable-supported bridges. In a short delay, Korea will have a cable-stayed bridge, Incheon Bridge (80 + 260 + 800 + 260 + 80 m) that will rank at the fifth position among the longest cable-stayed bridges in the world, and a suspension bridge, Gwangyang Bridge (main span: 1 545 m), that will be the third longest bridge in the world at its completion in 2012.