

Consultation on Vietnamese-style bridge structures



AI Overview

Vietnamese bridge structures combine historical reinforced concrete techniques with modern innovations like CFST arch designs, BIM integration, and advanced maintenance strategies. Historical Development Vietnamese bridges have evolved significantly since the late 19th century. Early bridges (1881–1930) were primarily one-span simple bridges using materials imported from France, following French design standards. From 1930 to 1954, large multi-span concrete bridges with concrete piles and piers were constructed, often using imported reinforcement bars and cement but local sand and gravel to reduce costs. During the Vietnam War (1954–1975), bridges were built mainly for military purposes, with South Vietnam following U.S. standards and North Vietnam using Soviet standards. Since 1975, bridge construction has expanded rapidly to meet transportation demands, incorporating modern materials and techniques. Modern Bridge Types and Construction Techniques CFST Arch Bridges The Hoang Van Thu Bridge is a notable example of a fly-bird-type concrete-filled steel tube (CFST) arch bridge in Vietnam. Its main span is a half-through CFST truss rib arch, with side spans as cantilever steel-shelled concrete half arches. The CFST structure offers high strength, good plasticity, strong deformation resistance, and large spanning ability, while reducing substructure and foundation costs in soft soil regions. Construction methods include segmental erection using scaffolding and crane hoisting, with horizontal thrust balanced by tied cables. Reinforced and Pre-Stressed Concrete Bridges Most Vietnamese bridges are constructed from reinforced concrete (RC) or pre-stressed concrete, reflecting both historical French influence and modern engineering standards. Maintenance strategies focus on inspection, non-destructive testing, and...

Article Content

Vietnamese Architecture

Modern Architecture in Vietnam As Vietnam continues to invest in its tourism business, a variety of new structures have

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In order to select appropriate structure of the piers in the main bridge, issues on V-shaped pier; Skelton balance, shape in Longitudinal Direction, level on bottom and aesthetic consideration are discussed

(PDF) Modern Architecture in Vietnam or Vietnamese

How was it formed and developed through the modern history of the country? Can we call modern architecture in Vietnam “Vietnamese modern

Implementation of Building Information modeling in

Architects and engineers use so-called building information modeling (BIM) systems to create digital representations of buildings. Inspired by the

Thu Thiem 2 cable-stayed bridge

WSP in Finland has worked on bridge projects in Vietnam for over 20 years and previous projects have included the Binh and Rao 2 cable-stayed bridges in Haiphong and Tran Thi Ly in

Bridge Design Items for Investigations for Bridge Design The Bridge ...

The results of the discussions between Quang Ninh Province and Haiphong City were unable to be confirmed during this Study, and it should be noted that based on the results of the discussions,

Nguyen Hoang Bridge (Vietnam)

The Nguyen Hoang Bridge spans the Per-fume River in the City of Hue and was built to improve the transportation of the region while reducing traffic congestion and supporting the city's economic

Saigon's Cầu Mống and the Remnants of Gustave

Many people will be familiar with the spurious claims that French civil engineer and architect Gustave Eiffel (1832-1923) was responsible for two of

Architectural Marvels of Vietnam: From Ancient

A Journey Through Time: Vietnam's Historic Architecture Vietnam's architectural tapestry weaves a detailed story of its cultural evolution, where

Implementation of Building Information modeling in Vietnamese ...

Inspired by the improvements in building construction projects, a Vietnamese construction project team decided to use the system to model a large-scale bridge crossing the Saigon River in Ho...

Bridge construction – INFRAS Vietnam Ltd.

Bridge expansion joints are designed to allow for continuous traffic between structures while accommodating movement, shrinkage, and temperature

22 Amazing Bridges In Vietnam That You MUST Visit

Vietnam is renowned for its spectacular bridges. The impressively designed bridges not only contribute to the economic progress but

What do experts and authors say about the design highlights of the ...

TTH.VN - After the Nguyen Hoang Bridge over the Perfume River (Hue City) opened for technical traffic (March 26th), many opinions on social media forums raised suspicions about its

Bridges in Vietnam: Connecting the Past and Future

Discover the rich history and promising future of bridges in Vietnam. Learn about their types, significance, and role in the country's development.

Finite Element Model Updating of RC Bridge Structure

Diagnostic load testing refers to the use of the measured historical responses of the structure in the field data to better understand its dynamic and

Vietnam Hands Bridge: Exploring a Symbolic Crossing of Cultures and ...

Vietnam Hands Bridge: Concept, Definition and Scope At its core, a Vietnam Hands Bridge is a bridge that employs the imagery or structural logic of hands to span a gap.

Vietnamese architecture

Vietnamese architecture (Vietnamese: Kiến trúc Việt Nam) is the architectural style used by the Vietnamese through the process of historical development and the

Vietnamese Architecture Style

Many Vietnamese buildings were influenced by France architecture through historical periods. Moreover, every structure in Vietnam, temple and palace has

Bridge Construction Techniques: From Planning to Execution

This article breaks down bridge construction techniques step-by-step—from initial planning to final execution—highlighting key processes, challenges, and modern methods.

The Journey of Vietnamese Architecture: Indigenous Roots and Global ...

Vietnamese architecture is a rich tapestry reflecting centuries of cultural evolution, indigenous traditions, and foreign influences. From ancient

A History of Bridges from Hoi An to Danang

According to the Japanese International Cooperation Agency (JICA) and the Vietnamese Institute of Transport and Communications Development Strategy, the construction of 38 bridges in 17

Design and Construction of Hoang van Thu Bridge in Vietnam

The structural design and construction method of Hoang Van Thu Bridge are mainly introduced in this paper. The main span of the bridge is a half-through CFST truss rib arch, and the

7 Must-Visit Bridges in Vietnam: Exploring Iconic

These structures are cultural touchstones, drawing millions of tourists annually to witness their beauty and significance. Must-Visit Bridges in

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