DESCRIPTION

A succinct, real-world approach to complete bridge system design and evaluation

Load and Resistance Factor Design (LRFD) and Load and Resistance Factor Rating (LRFR) are design and evaluation methods that have replaced or offered alternatives to other traditional methods as the new standards for designing and load-rating U.S. highway bridges. *Bridge Design and Evaluation* covers complete bridge systems (substructure and superstructure) in one succinct, manageable package. It presents real-world bridge examples demonstrating both their design and evaluation using LRFD and LRFR. Designed for a 3- to 4-credit undergraduate or graduate-level course, it presents the fundamentals of the topic without expanding needlessly into advanced or specialized topics.

Important features include:

• Exclusive focus on LRFD and LRFR

• Hundreds of photographs and figures of real bridges to connect the theoretical with the practical

• Design and evaluation examples from real bridges including actual bridge plans and drawings and design methodologies

• Numerous exercise problems

• Specific design for a 3- to 4-credit course at the undergraduate or graduate level

• The only bridge engineering textbook to cover the important topics of bridge evaluation and rating
Bridge Design and Evaluation is the most up-to-date and inclusive introduction available for students in civil engineering specializing in structural and transportation engineering.

ABOUT THE AUTHOR

Gongkang Fu is Professor of Civil Engineering and Chairman of Department of Civil, Architectural, and Environmental Engineering at Illinois Institute of Technology, and Changjiang Scholar Chair Professor of the Chinese Education Ministry at Tongji University, China. He was head of structures research with the New York State Department of Transportation (DOT) for seven years, and has worked on design and research projects for the FHWA and the California, Georgia, New York, Michigan, and Ohio DOTs. He is an active member of the American Society of Civil Engineers.

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