

# IAS-YNU Seminar

## STRUCTURAL HEALTH MONITORING FOR LONG-SPAN BRIDGES IN CHINA 中国における長大橋梁のヘルスマニタリング

IAS-YNU  
Institute of Advanced Sciences

YOKOHAMA National University

Date: Feb. 16(Mon) 10-11am 2月16日(月曜日) 10-11時  
Room: Civil Eng Bldg. 2F Seminar Room 土木棟セミナー室



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- Abstract:  
More than 150 long bridges have installed a structural health monitoring system (SHMS) in China recently. The response data of these bridges during typhoon, earthquake, explosion and ship collision were automatically collected for rapid evaluation. Based on long term monitoring data, it is also possible to distinguish the structural response induced by temperature change from the entire response; and this can improve the feasibility of damage identification by using statistic methods. However, there are still many challenge issues need to be investigated to meet the requirements of engineering practices, for example the design concepts and methods of a bridge structural monitoring system, the theoretical methods for damage identification and structure condition assessment, as well as the improve of durability of instruments. On the other hand, information technologies, such as the internet of things, cloud computing, and big data, are providing new opportunities for enhancing platform of structural information digging and usage based on monitoring data.  
This presentation will report the state of the art of SHM for long-span bridges in China and discuss the challenges and the opportunities for SHM technologies.

- Dr. Limin Sun received the B. E. degrees in civil engineering from Tsinghua University, Beijing, China in 1985, M. E. (in 1988) and Ph. D. (in 1991) of civil engineering from University of Tokyo, Japan. He obtained his license of PE (Orange, USA) in 1997. He used to work as a research engineer in Technical Research Institute, Obayashi Corporation, Japan, from 1992-2000. He is currently a IAS Adjunct Professor in Yokohama National University in Japan and a Chair Professor of Bridge Engineering Department in Tongji University, Shanghai, China. His research interests are in the areas of bridge engineering, in particular vibration control of bridge structures, health monitoring of large span bridges, and nonlinear seismic response of RC bridges. He is the member of IABSE and the member of CCES.

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1985年 中国清華大学卒  
1988年 東京大学土木工学専攻修士修了  
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研究分野: 橋梁構造振動制御、ヘルスマニタリング、橋梁耐震解析