Forum on the 5th Generation of Transportation and Sea-crossing Channel Construction Announcement







April 16-17,2016, Zhejiang University

Background and Aim

It has been pointed out in the 18th CPC National Congress that We should enhance our capacity for exploiting marine resources, develop the marine economy, protect the marine ecological environment, resolutely safeguard China's maritime rights and interests, and build China into a maritime powerful nation. For the first time, building marine powerful nation is determined as a national strategy. As the 5th generation transportation tool of vacuum tube high-speed train, the hyperloop is getting rapid development under the advocacy and promotion of ElonMusk in America. When submerged floating tunnel is combined with the hyperloop in the sea-crossing channel, the traditional way of shipping will be broken through and a new and rapid transport mode will be established with all-weather running between islands and shores, which would have an important impact in many aspects, such as transportation, politics, military, science and technology.

We are facing the great challenges and opportunities in the history of human traffic! In order to realize the great-leap-forward development of China's marine traffic mode, it is necessary to cooperate through multi-platforms, and mobilize all forces to actively participate in "the time-space race". Beijing Science and Technology Cooperation Center, College of Civil Engineering and Architecture, Zhejiang University(ZJU), Zhejiang Province Branch of China Highway Societ will be held the forum with theme of "The 5th Generation of Transportation and Sea-crossing Channel Construction" at Zijingang Campus of Zhejiang University, on April 16-17, 2016.. Senior experts and Professors in this field will be invited to explore and analyze related key problems deeply, and welcome to participate actively! The concrete conference arranges are as follows:

Conference Theme The 5th Generation of Transportation and Sea-crossing Channel Construction Sponsor: Beijing Science and Technology Cooperation Center

College of Civil Engineering and Architecture, Zhejiang University(ZJU)

Zhejiang Province Branch of China Highway Society

Co-Sponsors: Building industry Technology Innovation Association of Zhejiang Province

Hangzhou Society of Structure and Foundation Treatment

Alumni Association of Hangzhou, Zhejiang University

Organizer: Beijing Worldartery Transportation Technology CO.,LTD,

China Super Train Club

Date: April 16-17, 2016

Conference Avenue: Lecture hall of Anzhong building, Zijingang Campus of Zhejiang University,

浙江大学紫金港校区 安中大楼 报告厅,杭州

No. 866 YuhangTang Road, Zhejiang University, Xihu District, Hangzhou

Participants: Engineers, Managers for Design, Construction and Management Department in Traffic industry, Staff and Students of Zhejiang University (ZJU) and Zhejiang University of Technology(ZJUT)

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Forum Agenda:

Time	Contents & keynote Speakers		
April 16,2016 AM 09:00-09:10	Opening Ceremony	Beijing Science and Technology Cooperation Center, CCEA ,ZJU, etc.	
09:10-09:40 (30min)	New SFT Technology and Its Application in The 5 th Generation Transportation	Professor & Dr. Xiang Yiqiang College of Civil Engineering and Architecture, Zhejiang University(ZJU)	
O9 :40-10 : 10 (30min)	Sea-Crossing Project Research in Zhoushan Island, Zhejiang	Professor & Dr. Guo Jian, Zhejiang University of Technology (ZJUT)	
10:10-10:40 (30min)	Design and Technology Of Highway Bridges - Yesterday, Today and Tomorrow	Dr. Phillip Yen, Chairman, The International Bridge Seismic Engineering Association(IBSEA)	
10:40-11:00 (20min)	Tea Break & Group photo		
11:00-11:30 (30min)	Development and Application of High Speed Maglev Transportation Technology	Professor & Dr.Long Zhiqiang, National Defense Science and Technology University	
11:30-12:00 (30min)	Application Prospect Of Sea Crossing Vacuum Pipeline Transportation Technology	Liu Zizhong, President Beijing World Artery Transportation Technology Co.Ltd	
April 16,2016 PM 14:30- April 17, 2016	Ocean College, Zhoushan Campus, ZJU	Schedule to be determined, (Accommodation and transportation expenses are not included)	

Keynote Speakers:

Xiang Yiqiang (项贻强教授,浙江大学): Dr. Xiang Yiqiang is a Professor & Ph.D. in Bridge and Tunnel Engineering, Zhejiang University(ZJU). He is also Deputy of Building Industry Technology Innovation Association of Zhejiang Province(ZJBITIA), Director for Center of Historical Bridges Research of Zhejiang University, Mao Yishen Science, Technology and Education Foundation Society in China. He is a member of council in Bridge and Structure Engineering Branch of China Civil Engineering Society (BSE-BCCES, IABSE), and also is a member of China Group of the International Association for Bridge Maintenance and Safety (IABMAS) and a membership of International Association for Life-Cycle Civil Engineering, (IALCCE). He is a Standing Committee of Structure Vibration Resistance, Control and Health Monitoring Association of Chinese Academy of Vibration Engineering.

Prof. Xiang has been engaged in teaching and related scientific research works of bridge engineering. He is a specialist in SHM of bridge engineering and expert in the field of Life Cycle Bridge Design and Construction. The main research interests include whole life design analysis theory, health monitoring and maintenance management and risk control of bridges, and the inspection, evaluation and reinforcement of bridges, submerged floating tunnel, etc. He had published more than 200 academic papers, which more than 80 papers are indexed in EI or SCI Journals, such as important China journals and international academic journals, including Journal of Bridge Engineering, ASCE, Chinese Journal of highway and Transport, China Civil Engineering Journal, Journal of Zhejiang University, etc. There are 4 published books such as 《Cracking mechanism and control of concrete box girder bridge, «Movable formwork design, construction and maintenance technical guidelines of bridges », «The numerical methods and procedures for analyzing the bridge structure » in the bridge engineering field, etc. He was responsibility for or participate many national and local scientific researches and international cooperation projects in the transportation engineering field, such as "Nanjing second Yangtze river bridge –full-scale model space analysis and test research of tower of stayed-cable bridge with main span 628 m ". In 2000, He was awarded the science and technology progress prize of Zhejiang Province by Zhejiang Province Government. The movable formwork design, manufacturing and construction key

technology research of prestressed concrete girders with spans 62.5 m is awarded 2^{nd} science prize by China highway Society in the transportation industry in 2009. The 6 invention patents and 6 new type patents are awarded by the Chinese Patent Office.

Guo Jian (郭健教授,浙江工业大学): Professor, Zhejiang University of Technology(ZJUT) He is also deputy of College of Civil Engineering and Architecture, ZJUT. He received PHD from Zhejiang University(ZJU). In recent years, he participated in the construction of Zhoushan Sea-cross Bridges include Xihoumen Bridge and Jintang Bridge as deputy director of Zhoushan Large-scale Bridge Construction & Management Authority and chief engineer of Zhoushan Transportation Bureau of Zhejiang Province. The Xihoumen Bridge win the Gustav Award of International Bridge Conference (IBC). He now is a executive vice chairman of Zhejiang Postdoctoral Association, member of Youth Expert Committee of China Highway & Transportation Society, member of Bridge Expert Committee of Mao Yi-sheng Science and Technology Education Foundation, member of Bridge and Structural Engineering Branch of China Highway & Transportation Society, member of Bridge & Structural Engineering Branch of China Civil Engineering Society(BSE-BCCES, IABSE), member of Bridge Steel Structure Branch of China Steel Structure Association, member of Maintenance and Management Branch of China Highway & Transportation Society. Research interest includes in the design analysis, monitoring control, test analysis, damage identification, construction management of complex structure and cross-sea bridge are engaged in a long time. He had participated in the Liuheng Sea-cross Bridge and Daishan Sea-cross Bridge of Zhoushan and other large cross-sea project planning and preliminary work, and has presided several national science and technology research project of China.

Dr. Phillip Yen(颜文晖博士,国际桥梁地震工程协会主席): Dr. Yen is the Chair of the International Bridge Seismic Engineering Association(IBSEA). He is a principal bridge engineer of a highway agency. His professional experience includes: Assistant civil engineer with Bureau of Residence and Urban Development in Taiwan, 1979-1980, civil engineer and senior civil engineer of Taiwan Power Company in Nuclear Power Division, 1980-1986, graduate research assistant of Virginia

Transportation Research Council, 1987-1988, graduate research assistant of University of Virginia, 1988-1991; and highway engineer, research program manager, senior research structural engineer, and principal bridge engineer of an US highway agency since 1992.

He is responsible to enhance and implement bridge technology in extreme events related to structural dynamics, and has the technical responsibility to conduct the national earthquake engineering research in the highway constructions. He directed three national major Seismic Research Projects with the total amount more than \$40 Millions. He was a voting committee member of the AASHTO's new seismic design code development. Dr. Yen has published many technical papers in the area of modal identification of bridges structures, non-destructive evaluation and testing, seismic design, shake-table test of bridge columns and bridge vibration tests, cable stress assessment of cable-stayed bridges. Dr. Yen has been invited as a keynote speaker and presenter in many national and international earthquake engineering conferences and technical committee meetings, including International Earthquake Engineering Conference and US National Seismic Conferences for Bridges and Highways, US-Japan Bridge Engineering Workshops. The recent two major seismic engineering works under his leadership and direct involvement are (1) Seismic Retrofitting Manual for Highway Bridges and other Structures; (2) the newly adopted AASHTO Seismic Design Guide- Specifications for Highway Bridges; and (3) Earthquake Risk Analysis of Highway System.

Dr. Yen was a representative of National Earthquake Loss Reduction Program (NEP), and is the General- chair of the 5^{th} , 6^{th} and 7^{th} National Seismic Conference for Bridges and Highways (NSC). He also served as the chair of the 4^{th} & 5^{th} technical committee of the NSC. He is the Chair of the National Seismic Engineering Team. He currently serves as the US side Chair of the US-China, US-Japan and US-Italy, and other international Bridge Engineering Annual Workshops. He is a registered Professional Engineer of Virginia State.

Dr. Yen was named "The Engineer of the Year 2000" for a highway agency. He received many outstanding awards from the agency including an Engineering Excellence Award in 1999. He was nominated to receive the award of the top U.S.

Seismic Engineers of the 20th century. He received the distinguished alumni award from National Taipei Science and Technology University and a high level Superior Achievement Award from a highway agency, FHWA in October 2009.

Long Zhiqiang(龙志强教授,国防科技大学): Professor & Dr., National University of Defense Technology (NUDT). He received the B.Eng. degree in automatic control theory from Huazhong University of Science and Technology, Wuhan, in 1988, the M.SC degree in flight dynamics and control from Harbin Institute of Technology, Harbin, in 1991, and the Ph.D. degree in control science and engineering from National University of Defense Technology (NUDT), Changsha, in 2010. From 1991 to the present, he has been working at National University of Defense Technology in the field of high speed and medium/low speed maglev control technology.

As a supervisor of doctoral candidates, he is head of institute of mechanical and electrical engineering, college of mechatronics engineering and automation, National University of Defense Technology(NUDT). He also serves as a chief engineer for maglev engineering technology research center, and is a renowned academic leader of magnetic levitation control technology.

Liu Zizhong(刘子忠 董事长,北京九州动脉隧道技术有限公司): He is President of Beijing World Artery Transportation Technology Co., Ltd.

He set up the Ai Dekang company in 2006. This company developed the fully automatic enzyme linked immunoassay analyzer in field in China, which sales volume exceeded 100 million RMB Yuan. The analyzer has been adopted widely by Xiehe Hospital and Tiantan Hospital, and been exported to Germany, Turkey and other counties. The analyzer won the first prize of science and technology invention in Shandong province. In 2015, Ai Dekang company was purchased by a listed company.

In 2014, he also set up the Beijing Manas Surgical Robot Technology Co. Ltd, developing the first unattended blood sampling robot, and the firm will be floated on the stock market in 2016. In 2015, he established Beijing World Artery Transportation Technology Co. Ltd, and become the first man to advocate vacuum train in China.