

# Seminar on Intelligent Road and Bridge Construction and Management for Developing Countries

Program name	Seminar on Intelligent Road and Bridge Construction and Management for Developing Countries		
Organized by	Beijing Jiaotong University		
Time	2025-10-14 -- 2025-11-03	Language used	English
Countries invited	Developing Countries		
Planned number of participants	25		
Requirements for the Participants	Age	Under 45 for officials at or under director's level; Under 50 for officials at director general's level.	
	Health condition	In good health with health certificate issued by the local public hospitals; without diseases with which entry to China is disallowed by China's laws and regulations; without severe chronic diseases such as serious high blood pressure, cardiovascular/cerebrovascular diseases and diabetes; without metal diseases or epidemic diseases that are likely to cause serious threat to public health; not in the process of recovering after a major operation or in the process of acute diseases; not seriously disabled or pregnant.	
	Language competence	Capable of listening, speaking, reading and writing in English during the training	
	others	Family members or friends shall not follow	
Venue	Beijing	Weather conditions	18°C~28°C
Cities to be visited	Kunming City□Yunnan Province Guiyang City,Guizhou Province	Weather conditions	Kunming City:20°C~26°C Guiyang:18°C~25°C
Remarks	1. Please prepare the discussion materials related to the theme of the program; 2. Please wear formal or traditional ethnic clothing or working uniform to formal activities; 3. Please carry a small amount of common medications; 4. The Chinese side will not provide computers, please bring your own if necessary; 5. It is generally prohibited to alter international flight tickets personally. If necessary, please consult the Economic and Commercial Office of the Chinese embassy in your country to handle the process of flight ticket change; 6. If unexpected circumstances prevent your timely departure, or if your connecting flight is delayed, please contact the Economic and Commercial Office or the contact person of the organizer in a timely manner and inform them of the latest flight information for pick - up arrangements; 7. When transferring flights, please confirm whether you need to recheck your luggage; 8. After collecting your luggage upon landing, please wait patiently at the international arrival exit or domestic arrival exit. Our staff will pick you up with a sign bearing the name of the organizer. If the wait exceeds 15 minutes, you can contact with the contact person of the organizer by phone; 9. It is recommended to download and register WECHAT in advance.		

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About the Organizer	<p>Beijing Jiaotong University is a national key university directly under the Ministry of Education, jointly established by the Ministry of Education, the Ministry of Transport, the Beijing Municipal People's Government, and China Railway Group Co., Ltd. It is a national "211 Project", "985 Project Advantage Discipline Innovation Platform", and "Double First Class" construction university. It is the first higher education institution in China to cultivate railway professionals according to the modern education system. After the development of the Double First Class, the school has formed a comprehensive disciplinary training system with advantages in information and management disciplines, characteristics in transportation science and technology, and coordinated development of multiple disciplines such as engineering, management, economics, science, literature, law, and philosophy.</p> <p>Beijing Jiaotong University started its foreign aid training program in the 1970s, under the personal care of Premier Zhou Enlai, to provide training for personnel on the Tanzania Zambia Railway. Since 2006, our school has undertaken a total of 178 short-term training courses commissioned by the Ministry of Commerce, the Ministry of Foreign Affairs, the National Railway Administration, China Railway Group Limited, and other domestic and foreign institutions, with 4,261 participants. This includes 140 foreign aid training programs with 3,540 participants, covering more than 80 countries and regions in Asia, Europe, Africa, the Americas, and Oceania. The training formats include training in China, remote online training, and on-site training in target countries abroad. In 2024, our school undertook and completed a total of 25 foreign aid training projects, training 588 participants, and received unanimous praise from higher-level departments, embassies abroad, and the trainees. On 17th January, 2024, general secretary Xi Jinping has replied to the representatives of our school's Kenyan students and alumni, which is a great encouragement for our school to promote the construction of a community with a shared future for mankind through studying in China and foreign aid training under the Belt and Road Initiative.</p> <p>Beijing Jiaotong University organizes international training programs focusing on human resource development in developing countries, covering areas such as rail transit construction and operation and maintenance, infrastructure construction and maintenance, urban and rural planning, enterprise management, environmental protection, and sustainable development. Each training session is tailored to the strengths of the university and the characteristics of the training participants, with reasonable arrangements for classroom lectures, on-site teaching, and professional visits.</p>	
Training content	<p>I. Introduction of main training courses and contents</p> <p>(1) Highway and railway construction and environmental protection under the "dual carbon" background: Through classroom lectures combined with video playback, introduce the research and development of low-carbon technologies for road infrastructure construction, green and environmentally friendly development, and continuous energy conservation and emission reduction in China under the "dual carbon" background.</p> <p>(2) Development history and planning and construction of China's railway: Introduce the operating mileage, railway network planning, layout, and scale of China's railway industry through classroom lectures.</p>	

- (3) Planning and construction of bridges and tunnels in China: Through classroom lectures, we will introduce the current status of bridge and tunnel technologies in China, highlighting the significant achievements made in material technology, survey and design technology, construction technology, and maintenance technology. Additionally, we will discuss the opportunities and challenges facing the development of bridge and tunnel engineering.
- (4) Smart city infrastructure construction in China: Introduce intelligent transportation facilities, smart lighting, multi-pole integration, and other transportation, municipal, and information service facilities, as well as intelligent transportation informatization in different road scenarios such as smart roads and smart highways, through classroom lectures.
- (5) Water supply and drainage system design and intelligent management: Introduce the importance of the water supply and drainage system in the construction of smart cities through classroom lectures. Combine with practical cases to introduce the progressiveness of smart water technology in real-time monitoring, data analysis, and intelligent scheduling, as well as the green transformation of the water supply and drainage system in rainwater collection, sewage resource utilization, and other directions under the "dual carbon" goal.
- (6) Subgrade and pavement engineering and traffic geological environment: Introduce the basic requirements and basic structure of subgrade and pavement, subgrade protection and reinforcement, as well as the utilization, transformation, and protection of geological conditions in highway construction and environmental engineering through classroom lectures.
- (7) Conduct discussions on topics such as Intelligent Construction and Management of Road and Bridge in Developing Countries.
- (8) Explore Intelligent Construction and Management of Road and Bridge in China, explore Intelligent Construction and Management of Road and Bridge for Developing Countries and fostering sustainable innovation development.

## II□ Visit Arrangement (Visiting city may be adjusted according to the actual situation)

It is planned to arrange for participants from Developing Countries to visit on-site teaching at the "Transportation Big Data and Artificial Intelligence" Key Laboratory of the Ministry of Education, the National Virtual Simulation Experimental Teaching Center for Transportation, and the Urban Traffic Information Intelligent Perception and Service Engineering Technology Research Center at Beijing Jiaotong University. Visit and inspect enterprises such as Beijing Construction Engineering Group, Beijing Tianji Technology, Guiyang Guizhou Road and Bridge, and Kunming Yunnan Construction Investment Holding Group Co., Ltd. At the same time, it is planned to arrange visits to historical and cultural attractions such as Beijing's Summer Palace and Temple of Heaven, to showcase China's traditional culture and the current situation of China in development and change, allowing participants to experience a "real" China.

## III□ Introduction of the lectures □ May be adjusted to other teachers at the same level □

- (1) Zhu Li: Professor, Professor of Automation and Intelligence College, Beijing Jiaotong University, researching in intelligent traffic control and optimization, traffic system simulation and testing, traffic system perception and big data, control engineering;
- (2) Jing Guoqing: Professor, School of Transportation and Civil Engineering, Beijing Jiaotong University, specializing in track engineering and maintenance management, as well as transportation engineering;
- (3) Li Xinyang: Associate Professor, School of Environment, Beijing Jiaotong University. His research direction is Environmental Engineering;
- (4) Feng Xuesong: Professor, School of Traffic and Transportation, Beijing Jiaotong University, His research direction is transportation planning and management, as well as comprehensive transportation theory and technology.

## IV□ Others

1. According to the number of participants of the seminar, specialists will be provided to ensure the quality of learning and training in China.
2. Participants should respect Chinese culture and the organizer's regulations during the stay in China.