**IACIP Webinar (October 29th [9:00 PM China]/[9:00 AM EST USA], 2022)**

**AI Facilitated Highly Efficient Detection and Performance Evaluation of Pavement Condition: Technology and System**

**Ju Huyan, Associate Professor, School of Transportation, Southeast University**

**Abstract:** Artificial intelligent technologies, more specifically deep convolutional neural networks, are becoming a popular choice for computer vision-based automated pavement distress detection. While pavement image analysis has been extensively researched over the past three decades or so, recent ground-breaking achievements of deep learning algorithms in the areas of machine translation, speech recognition, and computer vision have sparked interest in the application of deep learning to automated detection of distresses in pavement images. This presentation intends to give an insight to the main technology of AI facilitated highly efficient detection and performance evaluation of pavement condition. A comparison of the deep learning software frameworks, network architecture, hyper-parameters employed by SOAT technologies, and pavement distress detection performance will be presented. Meanwhile, an AI facilitated road distress detection platform/system developed by the research team will be introduced, which is expected to provide a good foundation for driving further research on this important topic in the context of smart pavement or asset management systems.

Ju Huyan is an associate professor in the School of Transportation, Southeast University, China. She obtained her Ph. D degree from the University of Waterloo in 2019. After that, she has been working at the Centre for Pavement and Transportation Technology (CPATT) as a postdoctoral fellow for one year before joined Southeast University in July 2021. Her current research interests include automatic/intelligent pavement distress recognition, performance evaluation, pavement maintenance and rehabilitation management, and the implementation of image/data processing, machine learning, deep learning technologies into highways and airport pavements engineering. She has published more than 20 research papers in high quality journals and referred conference proceedings, and has made presentations at national and international conferences, such as TRB annual meetings. She also serves as the Young Academic Editor (YAE) of the journal of Transportation (English edition), and also a reviewer for several journals.

**Data and Time:**

9:00 pm-10:00 pm, October 29th (Saturday), 2022 (Beijing Time in China)

9:00 am-10:00 am, October 29th (Saturday), 2022 (Eastern Time at New York)

**Meeting Link:**

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Dial in + 86 13404106162 (E-mail of the presenter: jhuyan@seu.edu.cn)