

"Roadroid- Managing Road Infrastructure Assets With Sustainable And Flexible Data Collection"

Abuja, Nigeria August 11-14, 2025





SUPPORTING ORGANIZATIONS







Federal Roads Maintenance Agency (FERMA)



Council for the Regulation of Engineering in Nigeria (COREN)







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1 About
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BACKGROUND

Road network management aims to optimize the performance of the road network over the life cycle of its component infrastructure assets. In essence, it is a process that seeks to maintain and improve the performance of the infrastructure asset system. Road asset management is a key strategic approach enabling road authorities to optimize the performance of their assets. The road assets were traditionally reserved through reactive maintenance, repair, and replacement activities.

More recently, preservation of the road network through proactive maintenance showed significant advantages including lowered life cycle cost and improved level of service. This course provides state-of-the-art techniques utilized by different agencies to manage their road assets, enhance the roadway network resilience, and increase road networks sustainability.

CONFERENCE OBJECTIVES

Learners will study parameters impacting roadway networks conditions, resilience, and sustainability

Introduce state-of-the-art methodologies to inspect roadways and collect data for evaluating road network conditions

Learners will be introduced to historical development of roadway design theories and their role in road conditions improvement

Learners will be introduced to MEPDG and applications of pavement management systems and their role in enhancing road assets sustainability

TARGET AUDIENCE

National /State Road & Transport Engineers i Highway Engineers and Contractors

- Private Consultants
- QC/QA Personnel
- Highway Inspectors
- Financial Institutions



LEAD INSTRUCTOR

AMIN K. AKHNOUKH, PH.D., P.E.

PROFESSOR, EAST CAROLINA UNIVERSITY

Dr. Amin Akhnoukh is a professor of construction engineering and management at East Carolina University, North Carolina, USA. Dr. Akhnoukh earned his B.S. in Civil Engineering (1997) from Cairo University, M.S. in Civil

Engineering from Kansas State University (2005), Kansas, USA, and Doctorate in Construction Engineering (2008) from the University of Nebraska-Lincoln, Nebraska, USA. Dr. Akhnoukh has worked as an assistant and associate professor of civil and construction engineering at the University of Arkansas at Little Rock (2009-2017) and as associate and professor of construction management (2018-todate) at East Carolina University. Dr. Akhnoukh has generated more than \$3.0 million in research funding from the National Science Foundation, NASA, and State Departments of Transportation. Dr. Akhnoukh has more than 100 refereed publications in the area of construction materials, infrastructure asset management, and artificial intelligence applications in construction. Dr. Akhnoukh has more than 10 years of construction experience in Egypt, the middle east, and the United States. He is a registered professional engineer in Egypt and the United States, and a NASA and IRF Fellow.

D Day 1: Introduction to Roadway Assets and Asset Management N Networking Break

AUGUST 11 MONDAY		
09:00 - 10:30	D	Introduction to Roadway Network Components
10:30 - 10:45	Ν	Coffee/Tea Break
10:45 - 12:00	D	Parameters Impacting Road Network Conditions, Resilience, and Sustainability
12:00 - 13:00	Ν	Lunch Break
13:00 - 14:30	D	History of Pavement Design Theorles and Their Impact on Roadway Conditions
14:30 - 16:00	D	Open Discussions, Q&A, and Day 1 Conclusive Remarks

Y Day 2: Design/Inspection and Data Collection Techniques N Networking Break

AUGUST 12 TUESDAY		
09:00 - 10:30	Y	Superpave & Balanced mix Design
10:30 - 10:45	Ν	Coffee/Tea Break
10:45 - 12:00	Y	'Roadroid Presentation on Data Collection Techniques
12:00 - 13:00	N	Lunch Break
13:00 - 14:30	Y	Advanced Inspection Techniques
14:30 -16:00	Y	Advanced Data Collection, Analysis, and Visualization for Efficient Roadway Asset Management
16:00 -17:00	Y	Open Discussions, Q&A, and Day 2 Conclusive Remarks

S Day 3: Asset Management and Enhanced Roadway Sustainability N Networking Break

AUGUST 13 WEDNESDAY		
09:00 - 10:30	S	Development of Highway Materials for Enhanced Roadway Sustainability
10:30 -10:45	Ν	Coffee/TeaBreak
10:45 - 12:00	S	Intro to MEPDG and its Role in Enhancement of Roads Sustainability
12:00 - 13:00	Ν	Lunch Break
13:00 - 14:30	S	Asset Management Systems - Pavement Management Systems
14:30 - 16:00	S	Introduction to AI for Road Asset Management
16:00 - 17:00	S	Open Discussions, Q&A, and Day 3 Conclusive Remarks

R Day 4: Roadway Preservation/Resilience N Networking Break

AUGUST 14 THURSDAY	
09:00 - 10:30	R Techniques for Enhanced Roadway Resilience
10:30 - 10:45	N Coffee/Tea Break
10:45 - 12:00	R Preservation Techniques for Enhanced Sustainability
12:00 - 13:00	N Lunch Break
13:00 -14:30	R How to Assess/Evaliate Life Cycle Cost of Roadways Under Different Construction/Maintenace Scenarios?
14:30 - 14:4 5	N Coffee/Tea Break
14:45 - 16:00	R Open Discussions, Q&A, and Day 4 Conclusive Remarks



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International Road Federation

GLOBAL HEADQUARTERS & SECRETARIAT

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TRAINING INSTITUTES Alexandria, VA USA | Dubai, UAE | Zagreb, Croatia

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REGISTRATION

· Delegate Fee (USD): \$500 (Via Credit Card)

· Delegate Fee (Naira): N750,000 (Via Wire Transfer)

WIRE TRANSFER DETAILS

Account name: Nigerian Institution of Highway Engineers Account number: 3098849017 Bank name: FCMB

CONTACT DETAILS

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LOCATION

NSE Auditorium, National Engineering Centre,

Abuja, Nigeria

ACCOMMODATION

Chelsea Abuja Hotel: https://www.chelseahotelabuja.com/

Abuja Continental (Sheraton Hotel), Abuja: https://www.abujacontinental.com/

For support, please contact info@irf.global

FOR FURTHER ENQUIRY PLEASE CONTACT SECRETARIAT;

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PAST NIHTE INTERNATIONAL TRAINING WORKSHOPS



