



INTERNATIONAL SEMINAR: Climate Resilient Pavements

28-30 April 2025
in Tunis - Tunisia

Second Announcement

Organized in Cooperation with:

- World Road Association - PIARC
- Tunisian Road Association - ATR
- Ministry of Equipment and Housing of Tunisia

With the partnership of:

- Tunis National Engineering School - ENIT



email contact for the event: atr.pavement.seminar@gmail.com





PIARC Program and international seminars

PIARC (the World Road Association) is a non-profit, non-political organization whose mission includes organizing forums, disseminating good practices, and promoting efficient road and road transport decision support tools.

Since 1999, PIARC has been organizing a program of international seminars as part of its work, strengthening its presence in the world, considering the needs of developing countries and in transition countries, and making the results of the Association's work more widely known in these countries.

Technical Committee TC 4.1 - Pavements

Resilience plays a significant role in pavement engineering. Here, the focus is on questions of adaptation to climate change impacts.

During the 2024-2027 cycle, Technical Committee 4.1 "Pavements" focuses on pavements and road surface characteristics. A cross-cutting theme for PIARC is the reduction of infrastructure's carbon footprint. TC 4.1 contributes to this task with a report on carbon calculators for pavements and case studies on how to reduce the carbon footprint during the construction of the pavement and/or during its use. Pavements in urban areas get more attention, albeit for fighting heat island effects or providing a surface for "new" types of vehicles and other road users.

Tunisian Road Association - ATR

ATR, created in 2018, is an association that brings together Tunisian road professionals. Its vision/mission/value are:

Vision	Safe, resilient, and sustainable roads for all
Mission	Building an exchange platform for road professionals Identify and share best practices. Bringing academics and professionals closer to the road Disseminate knowledge and innovations in the road sector. Working for a better road policy
Value	Commitment to the general interest Exchange and sharing Sharing knowledge

ATR is a PIARC World Road Association member and is well-represented on its various technical committees.

Objectives of the seminar

The main aim of this event is to share knowledge between different countries and regions on methods to improve pavements' resilience to the effects of climate change.

The seminar will be held to optimize the time available to discuss themes and generate dynamic and highly involved discussions among the participants. Inventive speakers will make presentations, followed by discussion and collective development of conclusions and recommendations.



Who will attend the seminar?

PIARC Pavement seminar targets all stakeholders in the road infrastructure sector. Participants will be engineers and managers from the Ministry of Equipment and Housing and the agencies under its supervision, technical designers and design offices, suppliers of pavement materials for construction and maintenance, technical assistance offices, universities, and engineering students who are working on engineering pavement.

Seminar venue and dates

The seminar will be held from **28 to 30 April 2025 in Tunis, Tunisia.**

Tunisia is in the Maghreb region of North Africa, bordered by Algeria from the west and southwest, Libya from the southeast, and the Mediterranean Sea from the north and east. The country also shares maritime borders with Italy. It has an area of around 164,000 km² and a population of 12 million. Its coastline is around 1,150 km long. Tunisia's capital is Tunis. It is a tourist destination full of attractions.

Structure and languages of the seminar

The seminar will be divided into sessions, and several themes will be integrated into the program (see program below). The sessions will be organized over two days. Each session will consist of several presentations by the PIARC Technical Committee members and Tunisian and international experts. At the end of each session, a debate will be organized to discuss the various topics covered in the presentations.

The languages used in the seminar will be **French and English with simultaneous translation.**

Themes

The seminar will focus on the following major topics:

- Carbon footprint
- Low-cost pavement systems
- Big Data for pavements
- Resilient pavements

Program

First Day: April 28 - 2025		
08:00-09:00	Registration	
09:00-10:00	Opening session	
9:00	Welcoming words by the First delegate of Tunisia	Slah Zouari
9:15	Welcoming words by National Committee President	Aïda Bergaoui
9:30	Welcoming words by the Minister of Equipment and Housing	Sara Zaafrani Zenzri (TBC)
9:40	PIARC Institutional Presentation	PIARC General Secretariat representative
9:50	PIARC Technical Committee on Pavements	Margo Briessinck, TC4.1 Pavement Chair
10:00	Keynote lecture on Tunisian Pavement Catalogue	Mansour Ben Ayed (TBC)
10:30-11:00	Refreshments	
11:15-13:00	Session 1: Low Carbon footprint materials	
11:00-11:05	Moderators: Stefan Höller & Saloua Triki	
11:05-11:20	National decarbonization strategy	Mohamed Zmerli
11:20-11:35	Decarbonisation of the concrete paving industry – an approach over the whole value chain and life cycle of the pavement	Luc Rens
11:35-11:50	Cold Recycled Pavements: An energy-efficient and low-carbon solution	Saloua El Euch
11.50-12:05	Introduction of the technique of slag gravels in road construction in Algeria	Faham Abdelkader
12:05-12:20	Low carbon Polymer Modified Bitumen (PmB)	Serge Krafft
12:20-12:55	Q&A and debate	All speakers and chair
12:55-13:00	Session conclusions	Session Chair
13:00-14:00	Lunch	
14:00-16:00	Session 2: Low Carbon footprint initiatives	
14:00-14:05	Moderators: Serge Krafft & Rabeb Cherif	
14:05-14:25	Low Carbon Materials Grant Program in the USA	Gina Ahlstrom
14:25-14:45	Life cycle analysis of pavement based on recycled asphalt mills	Hend Zbidi
14:45-15:05	Climate-friendly material practices and contracts in Norway	Joralf Aurstad
15:05-15:25	Pavements made from recycled materials (working title)	Commander Oussama Atoui
15:25-15:55	Q&A and debate	All speakers and chair
15:55-16:00	Session conclusions	Session Chair
16:00-16:30	Refreshments	

16:30-18:00	Session 3 : Construction with Low carbon footprint	
16:30-16:35	Moderators: Rabbira Garba Saba & Imen Ben Hassine	
16:35-16:55	Optimizing Materials Management to Reduce Carbon Emissions in the Design and Construction Phases of National Roads Upgrades Projects in KwaZulu-Natal, South Africa	Salome Naicker
16:55-17:15	Ecological Pavers in Plastic Waste: Mechanical Performance and Environmental Impact for Urban Pavements	Commander Azer Maazoun
17:15-17:35	Carbon Footprint Tool for Road Pavements (CEDEX, Spain)	Marcos Perelli
17:35-17:55	Q&A and debate	All speakers and chair
17:55-18:00	Session conclusions	Session Chair
18:00	Closing Day1	
19 :30-23:00	Gala Diner	

Second day: April 29 - 2025		
9:00-10:50	Session 4: Low-cost pavement systems	
9:00-9:05	Moderators: Faham Abdelkader & Ahmed Ksontini	
9:05-9:25	TC 4.1 report on Low-Cost Pavement Systems	Venkat Lakkavalli
9:25-9:45	Roller Compacted Concrete pavements: An innovative and resilient technique in the face of the challenges of climate change	Ines Bousetta
9.45-10:05	RE-MED Project: Turning Construction Waste Management Failures into Resources for Road Construction and Maintenance - Experimental Road Section	M. Abdelaziz Kraiem & Mme Roua Zarrouk
10:05-10:25	Low-cost surface treatments in a Portuguese high-performance motorway network. Presentation of a case study by Brisa Group	Eugenia Correia
10:25-10:45	Q&A and debate	All speakers and chair
10:45-10:50	Session conclusions	Session Chair
10:50-11:20	Refreshments	
11:20-13:00	Session 5 : Big Data for pavements	
11:20-11:25	Moderators: Curt Turgeon & Mohamed Zmerli	
11:25-11:45	Ministry strategy about collecting data related to pavement	Slah Zouari
11:45-12:05	TC 4.1 Report on The Use of Big Data for Road Condition Monitoring	Richard Wix
12:05-12:25	The Value of Data Uploaded from Private User Vehicles	Curt Turgeon
12:25-12:45	Use of Drones for data collection	Zsolt Boros
12:45-13:00	Q&A and debate	All speakers and chair
13:00-13:05	Session conclusions	Session Chair
13:05-14:00	Lunch	

14:00-16:00	Session 6: Resilient pavements	
14:00-14:05	Moderators: Luc Rens & Eya Souab	
14:05-14:20	Climate resilience strategies in India	Nirmal Sanjay Kumar
14:20-14:35	Draining asphalt for more climate-resilient pavements	Rabeb Cherif
14:35-14:50	Permeable asphalt pavements to mitigate flooding	Margaritis Alexandros
14:50-15:05	Performance Tests on Styrene –Butadiene-Styrene (SBS) Polymer Modified Asphaltic Concrete Mixtures	Mohamed Khalifa Ali et Khalid Mohamed Mussa
15:05-15:20	The new Manual on Continuously Reinforced Concrete Pavement in Germany	Stefan Höller
15:20-15:55	Q&A and debate	All speakers and chair
15:55-16:00	Session conclusions	Session Chair
16:00-16:30	Refreshments	
16:30-17:45	Panel: How to improve pavement resilience	
	Moderators Margo Briessinck & Kaouther Machta	
	Panelists: Slah Zouari, Aida Bergaoui, Saloua El Euch, Faham Abdelkader, Luc Rens, Gina Ahlstrom	
17:45-18:00	Closing Session	
17:45-17:55	Technical conclusions	Margo Briessinck
17:55-18:00	Closing remarks	Slah Zouari

Third day: April 30 - 2025	
8:00-9:00	Bus from the hotel to the site
	Technical visit 1: RR128 Reconstruction in Korbous City Technical visit 2: Bizerte bridge
12:00-13:30	Lunch
13:30-14 :30	Bus from the site to the hotel

Reconstruction of Regional Road 128 in Korbous City

This project, located 60 km from Tunis, is a 4.5 km-long road between the mountains and the sea.

The components of the project are:

- Reconnecting the regional road 128 between Ain Octor and Korbous (2.5 km) by completing a sea wall.
- Repaving the road linking Korbous, Ain El Atrous and Ain El Fakroun (2 km)
- Protection of the two parts of the road from the rock falls and protection from marine drifts
- Preparing public equipment: green spaces, parking lots for cars and buses, and public lighting

Note that Korbous is a thermal spa.

Work is 75% complete.



Bizerte bridge

Located 60 km from Tunis, the Bizerte Bridge is a 2 x 2 lane expressway project spanning Lake Bizerte. In addition to the bridge crossing the canal, which is over 2 km long, the land route stretches approximately 9.5 km and includes four interchanges and nine bridges. Associated access restoration routes and landscaping accompany the project.

The main bridge is a viaduct over 2 km long and 800 meters above water. The deck is a reinforced concrete slab composite structure supported by a box formed by a Warren-type wire mesh with variable height.

Roadworks on both sides of the structure are well advanced, and work on the main bridge has just begun.



Organisation Committee

Margo Briessinck	Chair of Technical Committee TC 4.1 Pavement
Gina M. Ahlstrom	English Secretary TC 4.1
Horacio Delgado	Spanish Secretary TC 4.1
Aida Bergaoui	French Secretary TC4.1 & Chair of the Tunisian Road Association (ATR)
Slah Zouari	General Manager of Tunisian Bridges and Roads & First Delegate
Aïda Bergaoui Ahmed Ksontini Eya Souab Imen Ben Hassine Mohamed Zmerli	Responsables of the Seminar

Seminar location

Hotel El Mouradi Gammarth : Les côtes de Carthage, La Marsa, Tunis, BP 597-2070, Gammarth, Tunisia - Telephone: +216 71 27 43 00 - <https://goo.gl/maps/UbhBmpJRH6PE3SaQ9> - Website : www.elmouradi.com Email : res.gammarth@elmouradi.com

Accommodation

El Mouradi Gammarth offers Superior rooms for singles with breakfast at a rate of 211 TND (around 60 Eur) per day. Special accommodation (double room, etc.) can be considered. Contacts details: Les côtes de Carthage, La Marsa, Tunis, BP 597-2070, Gammarth - +216 71 27 43 00 - [W7CQ+G8 Marsa](https://www.google.com/maps/place/W7CQ+G8+Marsa).

To take advantage of the preferential tariff, email sales1.gammarth@elmouradi.com.

Alternate hotels for consideration are:

Hotel name	Contact details	Booking link
El Mouradi Gammarth**** Seminar venue	Les côtes de Carthage, la Marsa, +216 71 27 43 00 W7CQ+G8 Marsa	Event-related booking email : sales1.gammarth@elmouradi.com
Mövenpick Gammarth*****	B P 36, Av. Taieb Mhiri, la Marsa +216 71 741444 V8VC+X9 Marsa	https://urlz.fr/kdTI
Le Palace Gammarth *****	Les cotes de Carthage, Gammarth +216 71 91 20 00 W888+68 Gammarth	https://urlz.fr/kdSc
Regency Gammarth *****	B.P 705 - 2078 Gammarth +216 71 91 09 00 W7Q3+R2 Marsa	https://urlz.fr/kdSN
Ramada Plaza Gammarth*****	Les cotes de Carthage, Gammarth +216 71 911 100 W7FH+WW Gammarth	https://urlz.fr/kdSP

Registration and fees

To register, please follow this link <https://urlz.fr/tK8H>

	Registration fees in Euro or equivalent in Tunisian Dinars		Payment method	
The seminar	Before April 11th, 2025	High-income countries	400 EUR	By direct bank deposit to the account of the Tunisian Roads Association <i>(Below the Bank information)</i>
		Middle- and low-income countries	200 EUR	
	After April 11th, till April 25 th 2025	High-income countries	450 EUR	
		Middle- and low-income countries	225 EUR	
	special price for students	Tunisian students	200 TND	
Other students		150 EUR		
Gala Dinner		50 EUR	By direct bank deposit or cash on the first day of the seminar * This price excl. drinks	

Bank : Banque Internationale Arabe de Tunisie « BIAT » - AGENCE LES BERGES DU LAC

Account owner: Association Tunisienne des Routes

IBAN International TN59 0860 3000 1520 0905 8019

Code BIC: BIATTNTT

The registration will be validated upon receipt of the proof of payment to

atr.pavement.seminar@gmail.com

Travel and transport

The capital, Tunis, is well linked to the rest of the world through Tunis-Carthage's international airport. Cab service in the capital is affordable, and online cab ordering is common (Indrive and Bolt apps provide these services). Hotels can ensure transportation services.

Climate

Tunisia's climate is relatively calm in April. Daytime temperatures vary between 14°C and 22°C, but depending on the year, they can drop to 6°C and rise to 33°C.

Visa procedures

Many countries are visa exempt. However, the documents required to apply for a visa to Tunisia are standard, and procedures, applications, and deadlines may vary from country to country. For full information, please get in touch with your embassy or consulate:

https://www.aeroportdetunis.com/fr/visa_tunisie.php

Seminar Contact Person

For any further information or clarification that you may require, don't hesitate to write to

atr.pavement.seminar@gmail.com