



2nd Announcement

**“Resilient, sustainable and safe rural roads
& earth structures for a better future »**

3, 4 &5 May 2023

Hotel: El Mouradi Gammarth, Tunis

- Tunisia-





Organized by:

- World road association (PIARC) <https://www.piarc.org/en/>
- Tunisian road association (ATR) <https://atr-tunisie.org/>
- Ministry of Equipment and Housing of Tunisia <http://www.mehat.gov.tn/index.php?id=2&L=2>

The 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 tools for decision support in road and road transport.

As part of its work, and since 1999, the Association has been organizing a program of international seminars which strengthens its presence in the world, its consideration of the needs of developing countries and countries in transition, and makes the results of the Association's work more widely known in these countries.

This Seminar is co-organized by two PIARC technical committees TC2.2 and TC4.3.

• Technical Committee TC2.2

Rural areas provide goods, industries, and workforce for all communities, and roads are the most important way to exchange goods and services. Technical Committee 2.2 "Accessibility and Mobility in Rural Areas" focuses on accessibility in rural areas and on mobility needs.

Road networks in rural areas are very extensive compared to the low density of population, and as a result it is difficult to finance the construction and the maintenance of those networks and the safety conditions are generally poor. Therefore, this Technical Committee focuses on:

- Accessibility and mobility in rural areas,
- Improving road safety in rural areas,
- Technical solutions for paved and unpaved roads.

• Technical Committee TC4.3

Technical Committee 4.3 "Earthworks" focuses in particular on the identification of technologies and innovations in their construction and maintenance. The knowledge gained within the framework of this work will then also be incorporated into the further development of the Earth Work Manual, which will be made available in an updated and expanded version. Therefore, this Technical Committee focuses on:

- Measures for increasing resilience of earthworks,
- Techniques and innovation for construction and maintenance of earthworks,
- Update Earthworks Manual "Design and Construction of earth-structures".



Objectives of the seminar

This international seminar brings together road professionals from government, academia, private sector, universities to:

- Improve understanding of rural roads and earth structures,
- Apprehend the challenges of rural roads and earth structures,
- Learn about best practices and models of implementation which could be used as examples,
- Exchange ideas between the participants and propose solutions,
- Network and connect road professionals to one another.

Target audience

- Road administrations,
- Professionals from road sector,
- Engineers,
- Technical designers and design offices,
- Road network managers,
- Suppliers of road construction and maintenance,
- Technical assistance offices, universities,
- Engineering students.

Seminar venue and dates

The seminar will take place on **3, 4 & 5 May 2023 in Tunis, Tunisia.**

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

Course and Languages of the seminar

The seminar will take place on May 3rd and 4th followed by a technical visit on May 5th.

Plenary sessions, parallel sessions, debates and round tables around several themes as presented in the program below. The languages used in the seminar will be **French and English with simultaneous translation.**

Program

Les sessions du séminaire seront organisées selon le programme suivant :

Day1: Wednesday, 03 May 2023		
08:00 - 09:00	Registration	
09:00 - 10:15	Opening session	
9:00 - 9.10	Welcoming words	Imen Makhlouf- ATR- PIARC TC2.2 & Kamel Zaghouani, TC 4.3
9:10 - 9:25	ATR Tunisian road association presentation	Aida Bergaoui - President ATR
9:25 - 9:35	PIARC Presentation	Nazir Ali - PIARC
9:35 - 9:45	TC2.2 Rural Accesibility and mobility	Souleman Oussiman, Chair of PIARC Technical Committee 2.2
9:45 - 9:55	TC4.3 Earthworks	Patrick Boisson, Chair of PIARC Technical Committee 4.3
9:55 - 10:10	Opening words	Ms Sarra Zenzri Zaafrani, Minister of Equipement and housing of Tunisia
10:10 - 10:30	Keynote lecture	
	Needs for a more resilient roads in a frame of a climate change	Slah Zouari first delegate of PIARC , Ministry of Equipment and Housing, Tunisia
10:30 - 11:00	Refreshments	
11:00 - 13:00	Session 1: Challenges for rural roads and earthworks	
11:00-11:05	Introduction	Session Chair : Imen Makhlouf, Tunisie. TC2.2
11:05-11:25	Tunisia's experience in the construction and maintenance of rural roads.	Mosbeh Zeidi, Ministry of Equipment and Housing, Tunisia
11:25-11:45	Enjeux de mobilité et d'équité en matière d'accès des zones rurales aux grandes villes	Andre´ Broto, VINCI Autoroutes, France, PIARC Strategic Theme 2
11.45-12:05	Panel of earth structures case studies	Enrico Mittiga, TC 4.3, Italy
12:05-12:25	Transport Infrastructure as factor of economic development and social inclusion in Mali	Dialo Cheikh Omar TC2.2 (Mali)
12 :25-12 :40	PIARC earthwork manual and unpaved roads or Morocco experience of rural road construction	Hind Bendidi, TC4.3, Morocco
	Q&A and debate	
	Session conclusions	
13:00 - 14:00	Lunch	
14:00 - 15:30	Session 2: Best practices for rural roads and earthworks: Current practices in LMIC's	
14:00-14:05	Introduction	Session Chair: Marwa Mejri, TC2.2 , Tunisia
14:05-14:25	Rural roads management in Burkinafaso	Souleman Oussiman GEFA , Burkina Faso, TC 2.2
14:25-14:45	Performance based contract	Mohamed Zmerli, DEER, Ministry of Equipment and Housing, Tunisia
14:45-15:05	Maintenance of rural roads by local communities	Abdulaya Kader, TC 2.2, Niger
15:05-15:20	Improvement strategy of rural roads in Tunisia	Zina Dekhil, Ministry of Housing and Equipement of Tunisia

Day1: Wednesday, 03 May 2023		
15:20-15:30	Q&A and debate	
	Session conclusions	
15:30 - 16:00	Refreshments	
16:00 - 18:00	Session 3: Low cost maintenance and innovative solutions for sustainable rural roads and earthworks	
16:00-16:05	Introduction	Session Chair: Kaouther Machta, ATR, TC2.4, Tunisia
16:05-16:25	Maintenance of earth structure, with a focus on visual inspection	Alexandra Ferreira, TC 4.3, Portugal
16:25-16:45	How some UK municipal authorities are using advanced technology and innovation for safe, resilient and sustainable roads	Darren Capes, ITS Policy Lead, Department for Transport, UK
16.45-17:05	"Materials, research and sustainability. Case satudies for resilient platforms".	Jamel Neji, ENIT, Tunisia
17:05-17:25	Few examples of Innovation in earthworks	Jason Hasting, TC 4.3, USA
17 :25-17.45	Application of innovation for sustainable construction in Tunisia: RE-MED project	Oumaya MARZOUK, Directrice Projets Economie Circulaire, DTerCE/AA/TT Tunisie, France.
17:45-18:00	Q&A and debate with the audience	
	Session conclusions	

Day 2: Thursday , 04 May 2023					
08:30-09:00	Registration				
09:00-10:30	Session 4: Sustainable Earthworks, platforms design and CO₂ reduction – Comparisons of different approaches: European, American, and British standards- Part 1				
09:00-09:05	Introduction	Session Chair: Kamel Zaghouani (Tunisia)			
09:05-09:20	Challenges for earthworks execution	Anis Mbazaia, Director of Execution unit of Highway Tunis-Jelma Tunisie			
09:20-10:00	Norms for plateforms design (PST, Arase selon le GTR92)	Yasmina Boussafir, TC4.3, France			
10:00-10:25	Q&A and debate				
10:25-10:30	Session conclusions				
10:30-11:00	Refreshments				
Parallel session- TC2.2: Accessibility and mobility in rural areas (room1)			Parallel session -TC4.3 : Sustainable Earthworks and CO2 reduction (room2)		
11:00-13:00	Session 5-1: Improving accessibility and mobility in rural areas (Rural Transport, Rural road safety, social impacts of rural roads, ...)		11:00-13:00	Session 5-2: Sustainable Earthworks, platforms design and CO2 reduction – Comparisons of different approaches: European American, and British standards - Part 2	
11:00-11:05	Introduction	Session Chair: Darren Capes,UK	11:00-11:05	Introduction	Session Chair: Patrick Boisson - France
11:05-11:25	Safe Road design for rural roads	Matthieu Holland, CEREMA, TC3.1, France	11:05-11:25	Design procedures in UK	Speaker 1 : Paul Nowak TC4.3 England
11:25-11:45	UK Councils working with communities to deliver rural transport	Paula Claytonsmith, TC2.2, UK	11:25-11:45	Design procedures in USA	Speaker 2 : Jason Hastings TC4.3 USA
11:45-12:05	Improving rural mobility with road safety interventions in mind	Izak van der Linde, TC2.2 South Africa	11:45-12:05	La réception de chantier, discussion sur les essais in situ	Speaker 3 : Kamel Zaghouani TC4.3 Tunisie
12:05-12:25	The interest of rural roads in the development of Sub-Saharan African countries (Case of Côte d'Ivoire)	Paulin KOASSI-Cote d'Ivoire	12:05-12:25	Machine control systems 2D/3D on earthworks process. Productivity and quality	Slim Messelmeni, Tunisia/France
12:25-12:45	Designing forgiving roadsides to minimize the risk for injuries in run off road crashes	Carolien Willems, Belgium			
12:45-12:55	Q&A and debate				
12:55-13:00	Session conclusions				

Day 2: Thursday , 04 May 2023	
13:00-14:00	Lunch
14:00-15:30	Session 6: Technical solutions for paved and unpaved roads
14:00-14:05	Introduction Imen Ben Hassine, ATR, TC4.3, Tunisia
14:05-14:25	“To pave or not to pave: Developing a framework for systematic decision making in the choice of paving technologies for rural roads.” Stephen Muzira Investment and Program Lending (OPSIL), World Bank
14:25-14:45	Bitumen emulsion and rural roads François Chaignon, TC 2.2, France
15:45-15:05	Road base construction via environmentally safe soil stabilization Edward Rostin, TerraFusion International, USA
15:05-15:25	Alternatives to conventional solutions for rural roads Sami Montacer, Geotechnical Expert, Tunisia
	Q&A and debate
	Session conclusions
15:30-16:00	Refreshments
16:00-17:30	Session 7: Climate change and resilience of rural roads and earthworks
16:00-16:05	Introduction Modératrice : Aida Bergaoui, ATR, TC4.1, Tunisie
16:05-16:20	Infrastructures facing climate change Imen Makhoulf TC2.2, Tunisia
16:20-16:45	Resilience in earhtworks Enrico Mittiga, TC 4.3, Italy
16:45-17:00	Engagement for climat of Professional syndicat of earthworks of France Patrick Boisson TC4.3 France
17:00-17:15	Decarbonization of rural roads CHAIGNON François, France
17:15-17:25	Débat : Questions et réponses
17:25-17:30	Conclusions de la session
17:30-18:15	Round table : The future of rural roads and earth structures Moderator: François Chaignon, TC2.2, France Panelistes: Nazir Ali (President of PIARC) , Slah Zouari (Ministry of Equipment and Housing, Tunisia), Andre Broto (strategic theme 2 - France), Souleman Oussman (TC2.2 Burkina-Faso), Patrick Boisson (TC4.3, France)
18:15-18:30	Closing: TC2.2 & TC4.3 (Imen Makhoulf TC2.2 & Patrick Boisson TC4.3)

Day3: Friday , 05 May 2023			
Site visit1- Earthworks		Site visit2- Rural roads	
8:00-9:00	Transport from Tunis to Korbous	8:00-9:30	Transport from Tunis to Jendouba
9:00-10:00	Presentation of the project	9:30-10:00	Presentation of the project
10:00-12:00	Technical visit1: Project of “Restoration of the RR128 Road Ain Actor – Korbous, in the Governorate of Nabeul	10:00-12:00	Technical visit2: Project of “Integrated project of opening up the Soualhia, Aïn Safra and Chaabnia Douars - Commune Balta Bouaouene (Jendouba)
12:00-13:00	Lunch	12:00-13:00	Lunch
13:00-14:00	Bus from Korbous to Tunis	13:00-14:30	Bus from Jendouba to Tunis



Location of the Seminar

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 : sales1.gammarth@elmouradi.com

Registration and fees

Registration fees		Payment method		
The seminar (Dinar Tunisien)	Before April 15th	High-income countries	350 €	By direct bank deposit to the account of the Tunisian Roads Association *
	After April 15th	Middle- and low-income countries (Dinar Tunisien)	350 TND	
Gala Dinner		High-income countries	400 €	
	High-income countries	60 €	By direct bank deposit or cash during the registration on the first day of seminar	
		Middle- and low-income countries	120 TND	

* ATR Bank : Banque Internationale Arabe de Tunisie « BIAT » - AGENCE LES BERGES DU LAC
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 : imenmakh@gmail.com
salouatriki@bte-ingenierie.com

Registration Link

<https://forms.gle/ZnAyNdriZ4QrDPCw7>

Accommodation

El Mouradi Gammarth offers Superior" rooms for single use at the rate of 198 TND (incl. taxes) per day including breakfast.

Contacts details: Les côtes de Carthage, La Marsa, Tunis, BP 597-2070, Gammarth - +216 71 27 43 00 - W7CQ+G8 Marsa Email : sales1.gammarth@elmouradi.com

In addition, we offer you the following list of hotels located near the seminar venue:

Hotel name	Contact details	Booking link
Mövenpick Gammarth *****	B P 36, Av. Taieb Mhiri, 2078 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, Marsa 2013 - +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



Travel and transportation

The capital Tunis is well linked to the rest of the world through the international airport Tunis - Carthage and the cab service in the capital is very affordable, the online cab order service is very common.

Climate

In Tunisia, May is known as a warm month. The average maximum daytime temperature in Tunis in May lies at 27.0°C (80.6°F). The average minimum temperature goes down to around 16.0°C (60.8°F) (often the minimum temperature is noted at night).

Contact of Seminar's Responsible:

For further information or clarification about the seminar, please contact:

- Imen Makhoulf : imenmakh@gmail.com
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Organisation Committe	
PIARC	Miguel Caso Florez
	Jeayoun Kim
Seminar chairs	Imen Makhoulf
	Kamel Zaghouni
	Aida Bergaoui
ATR	Kaouther Machta
	Saloua Triki
	Ahmed Ksontini
	Mohamed Zmerli
	Eya Souab
	Imen Ben Hessine
	Imen Ben Hessine
Scientific committee	
TC2.2	Souleman Oussman
	Imen Makhoulf
	Izak vander lande
	Francois Chaignon
	Paula Claytonsmith
TC4.3	Patrick Boisson
	Kamel Zaghouni
	Yassmina Boussafir