



# SECOND ANNOUNCEMENT

## PIARC International Seminar on The Best Practices for Earthworks and Rural Roads

Tunis, Tunisia, 14 - 16 November 2018

Organized in cooperation by:

- Tunisian Road Association (ATR)
- Tunisian Ministry of Equipment, Housing and spatial planning (MEHAT)
- World Road Association (PIARC)



## Introduction

The seminar about “**The Best Practices for Earthworks and Rural Roads**” is a part of international programs organized by the World Road Association.

In the present period 2016-2019 the World Road Association within its Strategic Plan has the Strategic Theme D, which refers to the road infrastructure in order to improve the quality and efficiency of the road infrastructure through the effective management of road assets in accordance with the expectations of the user, the Government requirements and the sustainable development of peoples. Within this theme there is the Technical Committee D.4 Rural Roads and Earthworks.

In the field of rural roads and earthworks, Technical Committee D.4 Rural Roads and Earthworks investigates road administrations response to adverse conditions as a result of climate change activities while considering the use of local, marginal, and secondary materials in rural and unpaved roads.

Within the program of work of the technical committee D.4 for the period 2016-2019 of PIARC, common lines of policies for our countries will be developed through the D.4 Rural Roads and Earthworks:

- D.4.1 Exposure of roads to climate change
- D.4.2 Local materials, practices and techniques
- D.4.3 Management of earthworks

The main objective is analyze and increase the general awareness of professional and PIARC members about the proper asset management of rural roads with appropriate maintenance and continuing sustainable development of people.

The Technical Committee will identify areas for research and will address gaps in knowledge for the topic by presenting case studies and state of the art. The program has been designed to study a wide range of issues, particularly related to rural roads and low volume roads, use of local materials and others for the stabilization of soils and the problems of particular interest for low and middle income countries.

The seminar is organized by the Tunisian Road Association and the Tunisian government in collaboration with technical Committee D.4. The Technical Committee gathers members from different countries of the world, their knowledge and experiences are shared and disseminated through publications, participation and organization of international seminars and the comparison of practices in different countries and regions of the world.

The seminar is open to the entire world community interested in rural and low traffic roads. It is also expected to act more specifically on the needs of the countries of the region which have similar geographical, climatic and socio-economic conditions.

## Background

The road Asset Management, especially for Rural and low traffic roads is a key component of rural development, and that is a key development tool for developing regions by providing the basic service generated by the increase in agricultural incomes and better access to jobs. Rural roads are used as a starting point for poverty alleviation since it is agreed that investment in rural access and transport implicates an important improvement of the living

conditions of the poorer sectors of our societies. Transport was also identified to have a great importance for the achievement of several of the targets set under the Millennium Development Goals (MDGs), and the 17 Sustainable Development Goals (SDGs) launched by United Nations.

In several countries in Latin America, Africa and Asia, programs have been implemented for the maintenance of the rural road network that involves the communities along the road network, which carry out the cleanup of the berms, gutters, works of drainage and others. Many times they have performed major works, which have greatly alleviated the trafficability of routes in times of emergency, especially where access is difficult. The program aims at training the next stage groups in more specialized tasks such as signaling, which directly goes towards road safety.

Despite such significant progress in improving accessibility to these rural areas, the management and future maintenance of this rural road network should be expanded in a sustainable manner, with the participation of municipalities and local governments.

### **Seminar Objective**

The main objective of the Seminar is to provide a common platform for experts to share experiences and discuss issues and challenges related to planning, providing maintaining of rural roads in a sustainable manner. Innovations regarding the participation of local communities in the whole process are also part of the overall objective of the seminar.

### **Topics**

The seminar will broadly cover the following topics.

- I. Experiences in the Management of Rural Roads and Earthworks in the region and future challenges**
- II. Earthworks and paved roads**
  - Reuse of materials
  - Soil treatment
  - improvement of materials
  - stabilization of embankments
- III. Framework, project requirements and maintenance**
  - Planning and other pre- requisites including the involvement of local communities.
  - Financing, organization and management.
  - Maintenance practices.
  - Enforcement of maintenance contracts and alternatives.
- IV. Best Practices for planners and professionals in the development and sustainability of rural access through the use of alternative materials**
- V. Sustainable earthworks and rural roads**



## Seminar Venue

The seminar will be held in **Golden Tulip Elmechtel Tunis** from November 14th to November 16th, 2018, in Tunisia.

Tunisia has an area of 163.610 km<sup>2</sup> with an approximate population of 11,3 million people.

The largest city in Tunisia is the capital Tunis.



Tunis city



Old city Tunis



Sidi Bou Said



Carthage ruins



Dougga theater

## **Methodology**

The methodology for the International Seminar will consist of plenary sessions with experts' presentations, round tables, plenary discussion sessions and the conclusions and resolutions.

In each session there will be enough time allocated for discussion with the audience.

The plenary sessions will include presentations from experts of PIARC Technical Committees D.4, as well as local, regional and international leading experts.

## **Languages**

The official language of the seminar will be English and French with simultaneous translation.

## **Participation**

The topic of the seminar and methodology interest a wide variety of stakeholders, so the following sectors are expected to be attended:

- Members of PIARC Technical Committee D.4.
- Ministries, organizations and administrations dealing with rural connectivity.
- Research organizations with particular expertise in rural roads and low volume roads asset management and their maintenance.
- Representatives of multilateral funding agencies.
- Several Organizations of United Nations related to accessibility and mobility for the rural communities.
- Practicing engineers, construction companies and consultants who possess expertise in the development and management of rural and low volume roads.
- Community development specialists, groups or associations that have a special interest in the subject.
- Academics and students.

## PROVISIONAL PROGRAM OF THE SEMINAR

### Day 1

**Wednesday, November 14, 2018**

<b>8:30 to 9:30</b>	<b>Registration</b>	
<b>9:30 to 11:00</b>	<b>Opening session</b>	
	<ul style="list-style-type: none"> <li>• Welcoming speech</li> </ul>	<p><b>Kaouther Machta</b> Responsible of the Seminar Tunisian Road Association</p>
	<ul style="list-style-type: none"> <li>• Tunisian Road Association President</li> </ul>	<p><b>Slah Zouri</b> First delegate PIARC in Tunisia</p>
	<ul style="list-style-type: none"> <li>• Opening speech</li> </ul>	<p><b>Minister of Equipment housing and spatial planning Tunisia</b></p>
	<ul style="list-style-type: none"> <li>• World Road Association (PIARC)</li> </ul>	<p><b>Robin Sébille</b> PIARC Deputy Secretary General</p>
	<ul style="list-style-type: none"> <li>• World Road Association (PIARC)</li> </ul>	<p><b>Oscar Gutierrez-Bolivar</b> Strategic Theme D <i>Infrastructure</i> Coordinator</p>
	<ul style="list-style-type: none"> <li>• PIARC Technical Committee (TC) D.4 – Rural Roads and Earthworks</li> </ul>	<p><b>Roberto Sandóval Farfán</b> Chair TC D.4</p>
<b>11:00 to 11:30</b>	<b>Tea / Coffee Break</b>	
<b>11:30 to 13:00</b>	<b>Technical Session I</b>	
	<b>Experiences in the Management of Rural Roads and Earthworks in the region and future challenges</b>	
	<b>Chair: Ghazi Cherif</b>	
<ul style="list-style-type: none"> <li>• Rural roads in Tunisia : Construction and maintenance</li> </ul>	<p><b>Imen Benhassine</b> Engineer Ministry of equipment and housing and spatial planning Tunisia</p>	
<ul style="list-style-type: none"> <li>• Employment-intensive infrastructure programs : principles and lessons learned</li> </ul>	<p><b>Emmanuel Rubayiza</b> EMP/INVEST, International labor office, Geneva, Switzerland</p>	



	<ul style="list-style-type: none"> <li>Maintenance of rural roads (Moroccan experience)</li> </ul>	<b>Larbi Fahim</b> Ministry of Equipment, Transport, Logistics and Water of Morocco
	<ul style="list-style-type: none"> <li>Microenterprises on the roads of Bolivia</li> </ul>	<b>Roberto Sandóval Farfán</b> Chair TC D.4
	<b>Questions &amp; Answers and Debate Session</b>	

**13:00 to 14:30**      **Lunch Break**

<b>14:30 to 16:20</b>	<b><u>Technical Session II</u></b>	
	<b>Earthworks and paved roads</b>	
	<b>Chair: Sami Montassar</b>	
	<ul style="list-style-type: none"> <li>Soil classification and earthworks insitu control tool : GEOROUTE</li> </ul>	<b>Ahmed Ksontini</b> University of sfax researcher, Tunisia
	<ul style="list-style-type: none"> <li>Use of very high plastic clayey materials in fill construction experimental embankments of A34 Motorway section Faissault Bertoncourt</li> </ul>	<b>Véronique Berche</b> Cerema Nord Picardie France, PIARC TC D.4
	<ul style="list-style-type: none"> <li>Special features regarding the testing of processed mineral construction waste and industrial by-products in earthworks</li> </ul>	<b>Huber Stefan, Heyer Dirk</b> Technical University of Munich, Germany
	<ul style="list-style-type: none"> <li>Case of Study: From Proctor to Marshall: disruptive use of polymeric resins in soil roads</li> </ul>	<b>Mariano Barone &amp; Bernardino Capra</b> Argentine Road Association, Dirección de Vialidad of Buenos Aires Province, Argentina
<b>Questions &amp; Answers and Debate Session</b>		

**16:20 to 16:40**      **Tea / Coffee Break**

<b>16:40 to 17:40</b>	<b><u>Round table: Adaptation of climate change on earthworks and rural roads</u></b>	
	<b>Moderator: Oscar Gutierrez-Bolivar</b>	
	<b>Speakers:</b> <ul style="list-style-type: none"> <li>Véronique Berche, PIARC TC D.4</li> </ul>	

	<ul style="list-style-type: none"> <li>• Roberto Sandoval, PIARC TC D.4</li> <li>• Guy Raoul, PIARC TC D.4</li> <li>• Kamel Zaghouni, Tunisia</li> <li>• Aida Bergaoui Tunisia</li> </ul>
<b>17:40 to 18:00</b>	<b>Conclusions of the Day</b> : Kaouther Machta and Roberto Sandoval
<b>18:00</b>	<b>End of Sessions</b>

## Day 2

**Thursday, November 15, 2018**

<b>09:00 to 11:00</b>	<b><u>Technical Session III</u></b>	
	<b>Framework, project requirements and maintenance</b>	
	<b>Chair:</b> Sihem Ben Soltane	
	<ul style="list-style-type: none"> <li>• The community approach for rural infrastructure works</li> </ul>	<b>Jad Ben Hadj Boubaker</b> National coordinator of the Projet, International labor office /European community, Tunis, Tunisia
	<ul style="list-style-type: none"> <li>• Proven Agricultural Tractor Solutions for Unpaved Road Rehabilitation and Maintenance</li> </ul>	<b>Rob Petts</b> Director Intech Associates Ltd. UK, PIARC TC D.4
	<ul style="list-style-type: none"> <li>• Rural Roads – their role in Africa’s Sustainable Development</li> </ul>	<b>Esdras Ngezahayo</b> Civil Engineering Department, School of Engineering, University of Birmingham, B15 2TT, United Kindom
	<b>Questions &amp; Answers and Debate Session</b>	
<b>11:00 to 11:20</b>	<b>Tea / Coffee Break</b>	
<b>11:20 to 13:00</b>	<b><u>Technical Session IV</u></b>	
	<b>Best Practices for planners and professionals in the development and sustainability of rural access through the use of alternative materials</b>	
	<b>Chair:</b> Anouar Khedher	



	<ul style="list-style-type: none"> <li>Improvement of the geotechnical characteristics of silt and marl by lime treatment for use in embankments</li> </ul>	<b>Kamel Zaghouani</b> Director of Terrasol, Engineers Consulting Geotechnical Office in Tunisia
	<ul style="list-style-type: none"> <li>Experiences with Marginal and Non-Standard Materials on Rural Roads</li> </ul>	<b>Gordon Keller</b> United States Forest Service
	<ul style="list-style-type: none"> <li>Valorization of local resources and useful substances in rural infrastructure works</li> </ul>	<b>Abdellatif Boutouta</b> National coordinator of the project International labor office/europeen community, Tataouine, Tunisia
<b>Questions &amp; Answers and Debate Session</b>		

**13:00 to 14:30**

**Lunch Break**

**14:30 to 16:00**

**Technical Session V**

**Sustainable earthworks and rural roads**

**Chair:** Mourad Hamrouni

<ul style="list-style-type: none"> <li>Exposure of earthworks structures and rural roads to climate change</li> </ul>	<b>Véronique Berche</b> Cerema Nord Picardie France, PIARC TC D.4
<ul style="list-style-type: none"> <li>Resilient Measures for Road Risk Reduction and Storm Damage Prevention</li> </ul>	<b>Gordon Keller</b> United States Forest Service
<ul style="list-style-type: none"> <li>Evaluation of Low Volume Rural Road Damage in Coastal Areas of Bangladesh</li> </ul>	<b>Muhammad Saiful Islam, Md. Jahangir Alam and Md. Shamsul Hoque</b> , Bangladesh University of Engineering and Technology  <b>Mohammed Emdadul Karim</b> , School of Natural and Built Environments, University of South Australia

**Questions & Answers and Debate Session**

**16:00 a 16:20**

**Tea / Coffee Break**

**16:20 a 17:30**

**Round Table: Rural roads safety**

**Moderator:** Oscar Gutierrez-Bolivar

	<b>Speakers:</b> <ul style="list-style-type: none"> <li>• Saloua Triki, Tunisia</li> <li>• Ahmed Ksontini, Tunisia</li> <li>• Other speakers to be confirmed</li> </ul>
<b>17:30 a 18:00</b>	<b>Closing Session</b>  <b>Technical Conclusions of the Seminar</b> <ul style="list-style-type: none"> <li>• Kaouther Machta and Roberto Sandoval</li> </ul> <b>Honors and Closing Ceremony</b> <ul style="list-style-type: none"> <li>• High official from the Ministry of Equipment housing and spatial planning Tunisia</li> </ul>
<b>20:00 a 23:00</b>	<b>Gala Dinner</b>

### Day 3

## Friday, November 16, 2018

<b>07:30 a 15:30</b>	<b>Technical Visit: X20 Earthworks Road</b>  <p>The X20 bypass serves to decongest the primary network of the city of Tunis. With a line of 12.5 km, it crosses urban areas, national roads and railways. Earthworks have a volume of 1,450,000 m3.</p> <p>It is 10 km far from the hotel of the seminar. A bus will take the visitors from Golden Tulip Hotel to the site. The visit will last half a day and we will have lunch near the site.</p>
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## PIARC Special Fund

The PIARC Special Fund can cover up to 100% of travel expenses or up to 100% of the accommodation costs of participants from developing countries (lower middle income and low income countries). Requests for Special Fund assistance should be made by the First Delegate to the PIARC General Secretariat e-mail: [info@piarc.org](mailto:info@piarc.org) .

The precepts for the use of the Special Fund are available on the PIARC Website.

## Registration Fees

Registration to the PIARC International seminar about “The Best Practice for Earthworks and Rural Roads” will require paying registration fees:

Participants	Registration before 30 October, 2018	Registration after 30 October, 2018
Non PIARC members	150 euros	170 euros
PIARC Members	130 euros	150 euros
Students	100 euros	120 euros

The registration fees include the participation to the seminar, the gala dinner, the technical visit, the three days lunches, the tea/coffee breaks and the seminar documents.

## Accommodation

There are a few hotels located near the event and the participants may choose where they want to stay upon their necessities:

- Ambassadeurs Hotel: <https://www.booking.com/hotel/tn/ambassadeurs.fr.html>
- Diplomat Hotel: <https://www.diplomat-hotel-tunis.com/fr/>
- Belvedere Fourati Hotel: <http://www.hotelbelvederetunis.com/>
- Yadis ibn khaldoun Hotel: <http://www.yadis.com/>
- Ibis Tunis Hotel and Novotel Tunis Hotel: <https://www.accorhotels.com/fr/hotel-6144-ibis-tunis/index.shtml>

## Travel and Transportation

The Tunisian Republic is connected to the world and the rest of the country by trains, roads and its international airport of Tunis - Carthage.

## Climate

The daytime temperatures range in November is between 12-22 °C.

## Visa Requirements

In general, the following documents are required for obtaining visa for Tunisia:

- Original passport valid for at last six months
- Visa fees
- The supporting documents, if necessary
- Completed application

However, the procedures, requirements and deadlines may vary from country to country. Please check with your embassy or consulate to obtain complete and accurate information.

## Organizing Committee:

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<b>Roberto Sandóval Farfán</b>	Chair of Technical Committee D.4
<b>Khaled Dridi</b>	Ministry of Equipment, Housing and Spatial Planning
<b>Slah Zouari</b>	PIARC First Delegate of Tunisia
<b>Kaouther Machta</b>	General Coordinator
<b>Mourad Hamrouni</b>	Technical visit Coordinator
<b>Sihem Ben Soltane</b>	Logistics Coordinator
<b>Saloua Triki</b>	Logistics Coordinator
<b>Aida Bergaoui</b>	Scientific Coordinator
<b>Anouar KHADR</b>	Finance Coordinator
<b>Imen Ben Hassine</b>	Registration Coordinator
<b>Adnene Dhraief</b>	Promotion Coordinator

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## Scientific Committee:

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<b>Roberto Sandóval Farfán</b>	Chair of Technical Committee D.4
<b>Isabelle Lappe</b>	French Secretary of Technical Committee D.4
<b>Véronique Berche</b>	Leader of Working Group D.4.1 Exposure of earthworks structures and rural roads to climate change
<b>Aurea Perucho Martínez</b>	Leader of Working Group D.4.2 Local materials, practices and techniques
<b>Guy Raoul</b>	Leader of Working Group D.4.3 Management of earthworks

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## Registration

If you are interested in attending the PIARC International Seminar **The Best Practices for Earthworks and Rural Roads**, please fill in the following form and send it to [imen.benhsin@mehat.gov.tn](mailto:imen.benhsin@mehat.gov.tn) with a copy for [kaouther.machta@planet.tn](mailto:kaouther.machta@planet.tn).



**PIARC International Seminar on  
The best practices for Earthworks and Rural Roads**

Tunis, Tunisia, 14 to 16 November, 2018

I am interested in attending the seminar

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Organism: \_\_\_\_\_

Country: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Payment will be done by bank transfert to Tunisian Road Association.

Account bank will be given in few days to proceed for payment.

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**Details of contact with the organizers**

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