

FIRST ANNOUNCEMENT

# SARF/IRF/PIARC REGIONAL CONFERENCE FOR AFRICA

PIARC International Seminar on Sustainable Pavements for the Future

9 - 11 OCTOBER 2018

Republic of South Africa | Durban International Convention Centre



ORGANISED IN COOPERATION WITH:

South African Road Federation (SARF) | Technical Committee D.2 of Pavements (PIARC)  
International Road Federation – Washington (IRF) | South African National Roads Agency SOC Limited (SANRAL)



# INTRODUCTION

Technical Committee D.2 of "Pavements" (PIARC) and the South African Road Federation in support of the International Roads Federation (IRF) Washington and the South African National Roads Agency SOC Limited (SANRAL) have the honour of inviting you to participate in the next International Seminar for Sustainable Pavements for the Future.

SARF Regional Conference for Africa, which has become the flagship event for road infrastructure is scheduled to be held in South Africa in 2018. The SARF Regional Conference attracts national stakeholders interested in road infrastructure from all countries of Africa. The PIARC Seminar will be held as part of this conference by means of a parallel session.

The seminar aims to bring together national and international road officials at all tiers of government and professionals in the private sector and academia to discuss topics related to Sustainable Pavements for the Future.

# OBJECTIVES

An ever-growing number of transportation agencies, companies, organisations, institutes and governing bodies are embracing principles of sustainability in managing their activities and conducting business. This approach focuses on the primary goal of emphasising key environmental, social and economic factors in the decision-making process. These sustainability considerations have always been considered indirectly or informally in the past, but recent years have seen increased efforts to quantify their effect and to incorporate them in a more systematic and organised fashion due to many reasons, among which are a growing recognition of how road infrastructure affects the environment and a better appreciation for considering societal factors as well as economic considerations in decision making.



### **Seminar on Sustainable Pavements for the Future has the following objectives:**

- To promote the transfer of knowledge and national and international experiences generated in recent years with regards to green paving techniques within all stages of the pavement life cycle;
- To offer those attending the seminar an opportunity to engage with both national and international experts with special emphasis on new technological developments linked to the low-cost systems; and
- To contribute to the improvement of national road networks and testing strategies, including safety.

## **ADDRESSED TO**

The PIARC International Seminar on Sustainable Pavements for the Future is aimed at officials from government agencies or the managers of private operators responsible for the conservation and maintenance of road networks, technical personnel involved in planning, execution and supervision of road works, university professors, researchers and engineering students interested in deepening the subject of road management and specialists in other areas of knowledge involved in the planning of road infrastructure projects.

## **METHODOLOGY**

The seminar will be led in a manner which will optimise the time available for discussion of the themes, so as to generate dynamic and highly involved debate among the participants.

Presentations made by participants will be followed by discussion and collective development of conclusions and recommendations.

## **LANGUAGES**

The official language of the seminar is English.

## **PLACES AND DATES OF THE SEMINAR**

Durban, South Africa has been chosen to host the International Seminar for Sustainable Pavements for the Future. It is a suitable place for this event due to the infrastructure and connectivity available. It is one of the major centres of tourism of South Africa because of the warm subtropical climate and extensive beaches.

The seminar will be held on 10th and 11th October 2018.

## **DURBAN INTERNATIONAL CONVENTION CENTER (DURBAN ICC)**

The Durban ICC is the ideal place to hold congresses, seminars, meetings, conventions and exhibitions in a different, quiet and original environment. The venue is centrally located, just 15 minutes from the airport and minutes from Durban hotels and beaches.

Durban's International Convention Centre is a purpose-built, fully air-conditioned center with three convention halls that are interlinked but separate. Moveable walls allow for a number of different venue configurations. Alternatively, the halls can be opened up to form one large venue with seating for 5000 delegates or 7000 m<sup>2</sup> of column-free floor space.

Services:

- Furniture
- Computer equipment
- Audio and video
- Telephone and copiers
- Wireless internet
- Secretarial services
- Support staff
- Catering
- Kitchenette
- Access to different capacities.



# PRELIMINARY PROGRAM

TUESDAY, 9 OCTOBER 2018		
<b>08:30 - 10:30</b>	<b>Conference Plenary Session Keynote Addresses</b>	
	Engineering Numbers and Needs in the SADC Region	Dr. Allyson Lawless
	Work Zones Can and Must be Safer in South Africa	Michael G. Dreznes
	Africa's roadmap to connected, autonomous and electric vehicles	Victor Radebe
	World Road Association (PIARC)	Miguel Caso Florez
	PIARC Technical Committee D.2 - Pavements	Dr. Sueng-Hwan Han
<b>10:30 - 11:00</b>	<b>Tea break</b>	
<b>11:00 - 12:30</b>	FA1 Roads needs and financing mechanisms FA2 Optimal Standards FA7 Education and training in the road sector	
<b>12:30 - 13:30</b>	<b>Lunch break</b>	
<b>13:30 - 15:30</b>	FA1 Roads needs and financing mechanisms FA2 Optimal Standards FA7 Education and training in the road sector	
<b>15:30 - 16:00</b>	<b>Tea break</b>	
<b>16:00 - 17:00</b>	FA1 Roads needs and financing mechanisms FA2 Optimal Standards FA7 Education and training in the road sector	

WEDNESDAY, 10 OCTOBER 2018		
<b>08:30 - 10:15</b>	<b>Green paving solutions and sustainable pavement materials &gt; Part 1</b>	<b>Chair: Ms Sekadi Phayane</b>
	A sustainable roads rating system for South Africa	Manfred Uken, South Africa (Royal Haskoning DHV)
	Sustainability of roads: Survey results critically analysed	Johan Maeck, Belgium (PIARC TC D.2, Belgian Road Research Centre)
	Developments towards more environmentally sustainable road design	Shaun Brijlal, South Africa (VNA Consulting)
	The United States FHWA Sustainable Pavements Program	Gina Ahlstrom, USA (PIARC TC D.2, Federal Highway Administration)
	Environmentalism - Engineers viewpoint	Brian Segar, South Africa (Brian Segar Consulting)
	Questions & Answers	
<b>10:30 - 11:00</b>	<b>Tea break</b>	
<b>11:00 - 12:30</b>	<b>Green paving solutions and sustainable pavement materials &gt; Part 2</b>	<b>Chair: Ms Gina Ahlstrom</b>
	Impact of Fischen-Tropsch wax in ethylene vinyl acetate/waste crumb rubber modified bitumen: An energy-sustainability nexus	Keith Nare, South Africa (Nelson Mandela Metropolitan Municipality)
	Influence of nanomaterials on the performance properties of reclaimed asphalt mixtures	Actor Zonde, Zimbabwe (Department of Roads)
	Innovative procedures for production of polymer modified asphalt and related case studies	Zsolt Boros, Slovak Republic (PIARC TC D.2, TPA Spoločnosť)
	Questions & Answers Session	
<b>12:30 - 13:30</b>	<b>Lunch break</b>	

<b>13:30 – 15:30</b>	<b>Low cost pavement systems</b>	<b>Chair: Mr Johan Maeck</b>
	Overview of Low Cost Pavement and Optimum Selection of Techniques	Cheolwoo Park, South Korea (PIARC TC D.2, Kangwon National University)
	The influence of asphalt workmanship on pavement service life	Joralf Aurstad, Norway (PIARC TC D.2, Norwegian Public Roads Administration)
	The development, implementation and potential of modified dry-bound macadam. Water-wise construction of the base layer and community development	Pierre Roux, South Africa (South African National Roads Agency Limited)
	Sustainable bridge design: Can bridges be both cost effective and sustainable?	John Hilton, Australia (Aurecon Group)
	Use of fiberglass grid for asphalt pavement reinforcement	Venkat Lakkavalli, Canada (PIARC TC D.2, Apleona Incorporation)
	Questions & Answers Session	
<b>15:30 - 16:00</b>	<b>Tea break</b>	
<b>16:00 - 17:00</b>	<b>Panel Discussion: The use of green materials in developed and developing countries</b>	<b>Moderator: Mr Krishna Naidoo</b>

#### THURSDAY, 11 OCTOBER 2018

<b>08:30 - 10:15</b>	<b>Non-destructive pavement monitoring and testing techniques</b>	<b>Chair: Dr Michael Moffatt</b>
	PIARC road monitoring report	Margo Briessinck, Belgium (PIARC TC D.2, Agency for Roads and Traffic)
	Development of smaller-size moving weight deflectometer in Japan	Keizo Kamiya, Japan (PIARC TC D.2, Nippon Expressway Research Institute)
	Measuring Road Condition of the First Mile	Robin Workman, United Kingdom (TRL)
	Performance evaluation of a road surface layer consisting of a hot sand asphalt	Daniel A Patel dos Santos, Mozambique (National Roads Administration)
	Use of smartphones for pavement riding assessment	Venkat Lakkavalli, Canada (PIARC TC D.2, Apleona Incorporation) / Mirriam Mosia, South Africa (South African National Roads Agency Limited)
	Questions & Answers Session	
<b>10:30 - 11:00</b>	<b>Tea break</b>	
<b>11:00 - 12:30</b>	<b>Conference Final Closing Session</b>	<b>Chair: Ms Bongwiwe Ntombela</b>
	Technical Tours Presentation	
<b>12:30 - 13:30</b>	<b>Lunch break</b>	
<b>16:00 - 17:00</b>	<b>Technical Tours</b>	

## WEATHER INFORMATION FOR OCTOBER

This is according to the history average for 9-11 October: **23°/16°**

# TECHNICAL VISIT

## SPECIAL OPTIONS FOR DELEGATES

Durban is South Africa's third largest city, second manufacturing centre and popular tourism destination. For delegates interested in pavements, the most appropriate site visit planned is: Cornubia Development.

### Mt Edgecombe Interchange

The new upgraded four-level interchange provides two lanes on each of two major movements and includes directional ramps. This eliminates the need for controlled signalisation, thus ensuring the free flow of traffic in all directions.

There are two incrementally launched bridges. One, which is 948m long, is the longest incrementally launched bridge in the country, the other is 440m. Together they are the longest incrementally launched viaduct in the southern hemisphere.

The longer one has 23 piers and two abutments and was built from two ends – one portion launched on a curve and the other on a straight. A pedestrian bridge connects to two new footways. The whole interchange is lit at night.

### Durban Port

The Durban Container Terminal is the biggest and busiest in the southern hemisphere and handles two-thirds of South Africa's seaborne container traffic.

The state-owner freight logistics company Transnet has implemented an expansion project at the port and its container terminals to increase the container-handling capacity, going up from 3.6m twenty-foot equivalent units (TEUs) to 5.3m.

Container capacity was also created at other terminals, such as the Durban Ro-Ro and Maydon Wharf terminals, through the acquisition of new equipment, including mobile cranes and infrastructure upgrades.

### Cornubia Development

It was launched in 2014 and will cost R25b upon completion. It is a mixed-use development with residential, commercial and industrial sites, a sustainable and fully integrated human settlement. It spreads over 1 200ha with 80ha earmarked for industrial development and the remainder for commercial, housing and other social and public facilities that include schools, clinics, police stations, post offices and multi-purpose halls.

It is planned to create 48 000 new sustainable jobs.

The development is near the Mount Edgecombe Interchange along the N2.



# GUIDELINES FOR FULL PAPERS AND PRESENTATION

## 1) FULL PAPERS

Full papers should be prepared and submitted by the authors according to the following requirements:

- The length of the printed papers should be between 4 pages and 10 pages (A4: 8,27"x11,69", 210mm x 297mm).
- Full papers must be written in English.
- Full papers containing illustrations in black and white are preferable.
- Deadline for submission of Full Paper: 31 May 2018

## 2) PRESENTATION

Presentation should be prepared by the authors according to the following requirements:

- Presentation material should be prepared in "Power Point Presentation"
- Presentation material must be written in English

Full papers should be submitted to the Seminar Contact persons listed at the page 8 of this announcement.

## REGISTRATION FEE\*

- Early Bird Registration (Member and Non-Member) ZAR R7 014.00
- Early Bird Registration (Student) ZAR R4 313.00
- Standard/Late Registration (Member) ZAR R7 566.00
- Standard/Late Registration (Non-Member) ZAR R8 625.00
- Standard/Late Registration (Student) ZAR R4 307.00

PIARC individual and collective members will have a discount of ZAR R 250.00 and should register at this portal:  
<https://scatterlings.eventsair.com/6th-sarf-irf-2018/piarcmember/Site/Register>

## PIARC SPECIAL FUND

The PIARC Special Fund can cover up to 100% of travel expenses or up to 100% of accommodation expenses of participants from developing countries (lower middle income and low-income countries). It can cover the expenses of one participant per PIARC member country, subject to the agreement of the First Delegate.

Requests for Special Fund assistance should be made by the First Delegate to PIARC Secretary General, e-mail: [info@piarc.org](mailto:info@piarc.org)

The rules relating to the use of the Special Fund are available on the PIARC web site: [www.piarc.org](http://www.piarc.org), in section 12 of the blue guide.

## REGISTRATION DUE DATE

The registration form should be completed and forwarded to the seminar contact persons before 09th October 2018.

# ACCOMMODATION

## HILTON DURBAN

Hilton Durban is a landmark hotel that offers deluxe accommodation minutes' walk from the International Convention Center. All guest rooms offer gorgeous views of the city or KwaZulu-Natal coastline, with easy access to Durban's beaches and central business district, perfect for meetings or events.

### STREET ADDRESS

12-14 Walnut Road, Durban, 4001, South Africa

### RESERVATIONS

TEL: +27 31 336 8100

[http://www3.hilton.com/en/hotels/south-africa/hilton-durban-DURHITW/index.html?WT.mc\\_id=zELWAKN0EMEA1HI2DMH3LocalSearch4DGGenericx6DURHITW](http://www3.hilton.com/en/hotels/south-africa/hilton-durban-DURHITW/index.html?WT.mc_id=zELWAKN0EMEA1HI2DMH3LocalSearch4DGGenericx6DURHITW)

Twin Guest Room	ZAR R2 275.00
King Deluxe Room with Sofa	ZAR R 2 875.00
Two Double Bed Deluxe Room	ZAR R 2 875.00
King Executive Room with Lounge Access	ZAR R 3 225.00
Twin Executive Room with Lounge Access	ZAR R3 225.00
Executive Suite with Lounge Access	ZAR R7 275.00

## CITY LODGE HOTEL DURBAN

This Durban hotel has 160 rooms and is the epitome of everything Durban has to offer visitors. Whether you stay with us for business or leisure, you'll find yourself relaxing into the luscious gardens, tropical palm trees and breezy pool area.

Durban City Lodge Hotel is also perfectly situated near an abundance of different restaurants, it is within walking distance of the International Convention Centre and 30 minute drive to King Shaka International airport.

### STREET ADDRESS

Cnr Sylvester Ntuli and K.E. Masinga Rds, Durban City Center, 4056, South Africa

### RESERVATIONS

TEL: +27 31 336 8100

<https://clhg.com/hotels/315/Road-Lodge-Durban>

Single Room (Internet Rates)	ZAR R1 230.00
Double Room (Internet Rates)	ZAR R1 473.00
Single Room (Walk-in Rates)	ZAR R1 295.00
Double Room (Walk-in Rates)	ZAR R1 550.00

## THE WATERFRONT HOTEL

The aha Waterfront Hotel and Spa is one of Durban's premiere hotels located in the famous Point Waterfront. Housed in a beautifully preserved historic waterfront building, the hotel offers a stunning fusion of old and new. As one of the only hotels in Durban that offers a fully functional Teppanyaki station, the hotel effortlessly couples charm with modern styling and has made it their mission to offer unique and memorable experiences to both holidaymakers and business travellers look for accommodation near uShaka Marine World, Durban Harbour, the Durban ICC and Durban Exhibition Centre.

### STREET ADDRESS

40 Mahatma Gandhi Road, Durban Point Waterfront, Durban, 4000, South Africa

### RESERVATIONS

TEL: +27 31 332 8190

[www.thewaterfronthotel.co.za](http://www.thewaterfronthotel.co.za)

Standard Double Room	ZAR R1 149.00
Standard Twin Room	ZAR R1 149.00
Superior Double Room	ZAR R1 194.00
Family Room	ZAR R1 399.00
Paraplegic Room	ZAR R1 149.00
Superior Twin Room	ZAR R1 194.00
Deluxe Room Single Occupancy	ZAR R1 199.00

## THE OYSTER BOX

The Oyster Box is a national treasure, which is standing majestically on Umhlanga's beachfront, overlooking the Indian Ocean and the iconic lighthouse, discover our timeless elegance. Enjoy a multitude of dining options, including our famous curry feast and High Tea, and indulge in our award-winning spa amid tropical gardens. It is situated 14.8 km from the International Convention Centre, however there are available hotel transfers and local taxis.

### STREET ADDRESS

2 Lighthouse Road, Umhlanga, KwaZulu-Natal, South Africa

### RESERVATIONS

TEL: +27 31 514 5000

<https://www.oysterboxhotel.com/>

Garden Villa Loft	ZAR R5 348.00
Classic Garden King/Twin	ZAR R5 348.00
Classic Sea Facing King/Twin	ZAR R6 140.00
Luxury Sea Facing King/Twin	ZAR R7 607.00
Sea Facing Cabana	ZAR R10 563.00
Sea Facing Family Room	ZAR R10 563.00

## SEMINAR CONTACT PERSONS

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## WEB PAGE

[www.sarf-irf2018.co.za](http://www.sarf-irf2018.co.za)





## GENERAL INFORMATION ON SOUTH AFRICA

### **CURRENCY**

The official currency of South Africa is the Rand (Sign: R and code: ZAR), which has an approximate exchange rate of ZAR R12.26 per US dollar or ZAR R15.00 per Euro. In Durban and the rest of the country, rand is the currency of common use.

### **CREDIT CARDS**

Most commercial establishments throughout South Africa accept international credit cards. Mainly: Visa and Master Card. American Express is not accepted at some establishments.

### **TIPS**

The average restaurant service tip is 10-15%. It is not common for the tip to be included on your bill, however check your bill before you tip.

### **TIME ZONE**

South Africa has one time zone: GMT+2.

### **VISA REQUIREMENTS**

<http://www.dha.gov.za/index.php/countries-exempt-from-sa-visas>

### **TRAVEL CLINIC**

The World Health Organisation recommends precautionary measures against Typhoid, Tetanus and Diphtheria and Hepatitis B. There is no risk of yellow fever in South Africa, however the government of South Africa requires proof of yellow fever vaccination if you are arriving from a country with risk of yellow fever.

For trekking holidays or extended visits, Rabies and Hepatitis B may need to be considered.

## ABOUT DURBAN, SOUTH AFRICA

Situated on the east coast of South Africa, Durban, also known by its Zulu name eThekwini which means “bay” or “lagoon”, is the largest city in the province of KwaZulu-Natal and the third most populous in the country after Johannesburg and Cape Town.

It is also the second most important manufacturing hub in South Africa after Johannesburg.

Shaka Zulu, the famous Zulu king, ruled the lands surrounding Durban. Durban’s international airport was named after him.

Durban is famous for being the busiest port in the country. It is also seen as one of the major centres of tourism because of the city’s warm subtropical climate and extensive sun-kissed beaches that can be enjoyed during summer and winter.

There are few places in the world where you can encounter so many different cultures, city life and a beach resort feel all in one place.

There are plenty of activities to keep tourists occupied, such as uShaka Marine World, gondola rides, fishing, and water sports such as surfing and snorkelling.

uShaka Marine World is the perfect place to begin your exploration of Durban. The waterpark offers a refreshing break from the muggy weather, and includes water slides and rides, eating spots at an African village, and most notably, one of the world’s largest aquariums - uShaka Sea World. This aquarium is creatively housed in five shipwrecks with over 30 fascinating exhibits of sharks, rays, eels, and a wide variety of exotic fish.

Each year Durban is at the centre of one of the world’s great marine migrations. “The Sardine Run” as it is known, takes place when these small silver fish gather in their millions and take the journey up the coast, passing Durban along the way.

Durban has the highest population of Indians outside of India. Thankfully they brought along with them their amazing cuisine. A local Durban city favourite is known as a “Bunny Chow”. A loaf of bread is hollowed out and filled with a mutton or bean curry.

There are shuttles from King Shaka Airport to hotels and another alternative is Uber at an average cost of 280 ZAR/20.5 USD. They are the most reliable mode of transport.



## FACTS ABOUT DURBAN:

- 1.** The Portuguese seafarer Vasco da Gama arrived at the bay of the Durban of today on Christmas Eve in the year 1497, and called it "Terra do Natal", Christmas Country. In 1835 the town was named Durban after the Cape Governor of the time, Sir Benjamin D'Urban.
- 2.** In 1962 Nelson Mandela was captured and arrested in the town of Howick and consequently began his 27 years of imprisonment. Mandela returned to KwaZulu-Natal to begin a new journey when he chose to cast his first vote in Inanda, Durban as a free man in 1994.
- 3.** The world's oldest and largest ultra-marathon, the Comrades Marathon, takes place between Durban and Pietermaritzburg.
- 4.** The world's tallest bungee swing is found at the Moses Mabhida stadium.
- 5.** Durban is the largest shopping mall in the southern hemisphere, Gateway Theatre of Shopping.
- 6.** Durban Aliwal Shoal is considered as one of the world's top diving sites.
- 7.** Durban harbour is the home of the ninth largest harbour in the world. The modern Port of Durban grew around trade from Johannesburg. Today Durban has the busiest container port in Africa.
- 8.** The spiritual leader of the Indian independence movement, Mahatma Gandhi, began his political journey in Durban
- 9.** Durban is one of the top surfing destinations in South Africa
- 10.** The rickshaw was brought to Durban from London in 1893 by the sugar baron Sir Marshall Campbell. Rickshaw pullers have been operating in Durban for more than 100 years.

