



THIRD ANNOUNCEMENT

29 April – 03 May 2024

CTICC, Cape Town, South Africa



www.piancworldcongress2024.co.za



Photograph: Courtesy of Cape Town International Convention Centre

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GREETINGS

The planning for the 35th PIANC World Congress, to be held in Cape Town, South Africa from 29 April – 03 May 2024, is at an advanced stage.

We invite you to participate in one or more of the following ways:

- Register as a delegate to maximise and share your knowledge and collaborate with specialists from national governments, public authorities, corporations, and individual experts
- Exhibit your products and services to increase brand awareness and take advantage of new marketing opportunities
- Sponsor the Congress and support PIANC's efforts to improve the waterborne transport infrastructure industry, actively shape industry guidelines and influence industry standards

We are delighted to announce that the conference preliminary programme is published, with the theme: ***“Future Ready Waterborne Transport – Unlocking Africa”***.

The Congress is hosted by The World Association for Waterborne Transport Infrastructure (PIANC) in partnership with the South African Chapter, PIANC SA.

Prior to the main Congress, a series of important PIANC Meetings, including the Annual General Assembly (AGA) and various Commission meetings, will take place at the Westin Hotel, directly across the road from the Congress venue.

The main Congress will consist of a main plenary session and parallel technical sessions daily.

For parallel technical sessions over 300 abstracts were submitted by authors from over 150 Organisations in 41 countries, to share latest research and developments under the various sub themes. A big thank you to all those that submitted their abstracts for consideration and who have registered to present their paper.

The technical committee had a difficult task of selecting around 280 abstracts to be converted into high quality peer-reviewed technical papers for oral presentation at the Congress. We will also have a handful of poster presentations.

The social events programme includes a Welcome Reception and the official opening of the Trade Exhibition at the Cape Town International Convention Centre and a spectacularly African-themed Gala Dinner.

The Congress will also offer delegates and partners an opportunity to experience Cape Town, which was recently voted as the [Best City in Africa](#) to visit at the 2023 World Travel Awards. Renowned as one of the most beautiful cities in the world, Cape Town will regale you with her exceptional beauty, incredible diversity and profound history. Incidentally, the Port of Cape Town – home to a world-class cruise terminal – was awarded Africa's Leading Cruise Port 2023.

We extend our gratitude to all our Congress speakers, sponsors, exhibitors and strategic partners for their participation and contributions in making the upcoming Congress a success.

Please register before 29 March 2024 to take advantage of the early bird registration.

Sponsorship and exhibition opportunities are still open, and more information can be found on the Congress website.

We look forward to welcoming you to the best city in Africa in April 2024!

Warm Regards

Basil Ngcobo

First Delegate: PIANC SA

Magenthran Ruthenavelu

Conference Chair

THANK YOU TO OUR SPONSORS

Platinum Sponsor

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*national ports
authority*

Gold Sponsor



Silver Sponsors



Bronze Sponsors



Bags and Lanyards





Our Platinum Partner – TNPA

Transnet National Ports Authority (TNPA) is the landlord of the eight South African commercial seaports responsible for securing production and economic functioning of the national port system. It manages and administers the system on behalf of the state.

As the leading and largest Ports Authority with world-class port infrastructure in the Eastern and Southern hemispheres of Africa, TNPA's role is to provide port infrastructure and marine-related services including dredging services to the ports of Cape Town, Durban, East London, Mossel Bay, Ngqura, Port Elizabeth, Richards Bay and Saldanha.

It operates within the legislative framework provisioned through the National Ports Act of 2005 (Act No. 12 of 2005). This legislation outlines TNPA's core functions, which include:

- Planning, providing, maintaining, and improving port infrastructure.
- Provision or arrangement of marine-related services.
- Ensuring the provision of port services and managing port activities.
- Providing aids to navigation and assistance to vessel that navigates within port limits and along the coast.

Our Mandate

TNPA provides a port system that is **seamlessly integrated** into the **global logistics network** that is sustained through the delivery of high levels of service and increasing efficiency for a growing customer base. This enhances South Africa's global **competitiveness**, facilitating the expansion of the South African economy through socially and environmentally sustainable port development.

Our Capabilities and Services

TNPA offers services to port users which include terminal operators, shipping lines, ship agents, cargo owners, clearing and forwarding agents.

With its port consultancy and dredging expertise, the Ports Authority is also well-positioned to explore cross-border partnerships with ports and maritime related projects outside of South Africa.



- **Marine Services:** TNPA has a total of 49 marine crafts inclusive of pilot boats, tugs, workboats, launches and helicopters.
- **Aviation Services:** play a key role in the Marine Pilot Service by providing safe and efficient transfer of marine pilots to and from vessels calling into SA ports.
- **Lighthouse and navigation systems:** TNPA has 44 operational lighthouses along SA's coast aimed at assisting the navigation of vessels along the coastline and within port limits.
- TNPA provides comprehensive **Dredging Services** and **Hydrographic Survey** solution to all ports to support port development. This service expands to other ports within the African continent.

Behind the successful work of the port system is the **empowered** and **skilled workforce**:

- +-4000 employees
- +-91 marine pilots
- +-95 tug masters
- +-300 qualified engineers

TNPA Fast Facts

- 2798km of coastline
- R13.3 billion revenue as of 2022/23 FY
- R2 billion Capex as of 2022/23 FY
- Assets: R112.8 billion as of 2022/23 FY

ABOUT THE AGA

AGA Programme: 24 - 28 April 2024

The AGA programme consists of a series of PIANC Meetings, an Accompanying Person's programme, and a Technical Tour.

The AGA activities will take place at the Westin Hotel.

Please note that the AGA Programme is reserved for PIANC office bearers and invited attendees only.

ABOUT THE CONGRESS

Main Congress: 29 April – 3 May 2024

The programme of the PIANC World Congress will run from Monday, **29 April to Friday, 3 May 2024**. It consists of four days of conferencing featuring plenaries and parallel breakaway sessions, a great selection of social events and a choice between two one-day technical tours.





During plenary sessions, selected speakers and panellists will present and discuss various matters of strategic importance in the realm of waterborne transport infrastructure.

Under the theme of the Congress **“Future Ready Waterborne Transport – Unlocking Africa”**, the programme will include streams that focus on:

1. Overcoming Africa's Waterborne Transport Challenges
2. Dredging (in the framework of port and navigation projects)
3. Logistics & Infrastructure
4. Ports
5. Marinas and Small Craft Harbours
6. Environment
7. Inland Navigation

The last day of the Congress is reserved for technical tours to bring an element of practical experience to the Congress programme.

REGISTRATION

Registration is open. The Early Fee Discount Deadline Date: 29 March 2024.

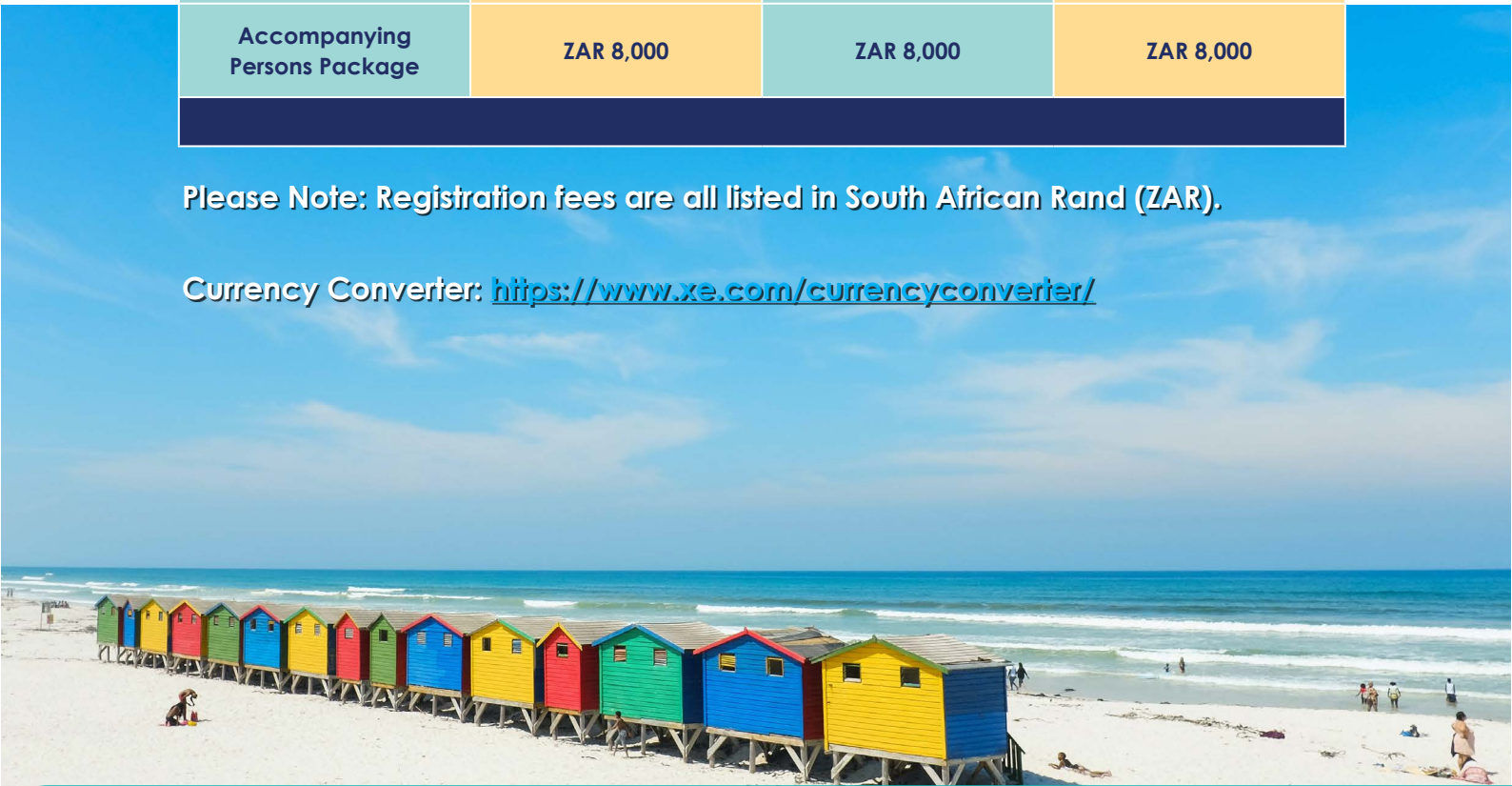
To register, please visit the conference website at:

www.piancworldcongress2024.co.za/registration-fees/

CATEGORY	Early Registration Fee paid VALID UNTIL 29 MARCH 2024	Standard Registration Fee paid VALID UNTIL 28 APRIL 2024	ONSITE
PIANC Member Rate	ZAR 18,000	ZAR 20,000	ZAR 22,000
Non-Member Rate	ZAR 21,000	ZAR 23,000	ZAR 25,000
African Delegate Rate	ZAR 11,000	ZAR 12,500	ZAR 13,500
Students	ZAR 6,500	ZAR 6,500	ZAR 6,500
Day Rate	ZAR 5,500	ZAR 5,500	ZAR 5,500
Accompanying Persons Package	ZAR 8,000	ZAR 8,000	ZAR 8,000

Please Note: Registration fees are all listed in South African Rand (ZAR).

Currency Converter: <https://www.xe.com/currencyconverter/>



AGA PROGRAMME AT A GLANCE

Please note that the AGA Programme is reserved for PIANC office bearers and invited attendees only, and is not open for public participation.

	AM	PM	SOCIAL EVENTS	ACCOMPANYING PERSON
01: WEDNESDAY 24 April 2024	LOC	LOC		
02: THURSDAY 25 April 2024	ExCom ExCom Members only	ExCom ExCom Members only	ExCom ExCom Members & LOC / Partners Only	
03: FRIDAY 26 April 2024	Council	National Secretaries	AGA Welcome Reception	Groot Constantia Wine Tasting
04: SATURDAY 27 April 2024	Annual General Assembly	Annual General Assembly	AGA Banquet	Table Mountain, City Tour
05: SUNDAY 28 April 2024	AGA Technical Tour	AGA Technical Tour		AGA Technical Tour

CONGRESS PROGRAMME



SUNDAY 28 APRIL 2024

18h00 - 21h00

WELCOME RECEPTION & OPENING OF EXHIBITION

CONFERENCE DAY 1: MONDAY 29 APRIL

07h00

REGISTRATION OPENS

09h00 - 10h30

OPENING PLENARY

10h30 - 11h00

TEA BREAK

PARALLEL SESSIONS A

11h00 - 11h25

PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
PORTS DREDGING AND RECLAMATION	PORTS – UKC/AIS SYSTEMS	PORTS – ASSET MANAGEMENT/ REHABILITATION	INLAND WATERWAYS	ENVIRONMENT: SUSTAINABILITY IN DESIGN AND CONSTRUCTION	PORTS – WAVES/ TSUNAMIS
Optimizing real-time dredge monitoring systems for various dredge types <i>(Mr Konrad Mech, Mr Peter Klemp)</i> Kongsberg Discovery Canada Ltd. Canada	Improving port planning and risk management using AIS and PPU data <i>(Dr Matthew Turner, Dr Giles Lesser, Mr Brendan Curtis)</i> OMC International Australia	Artificial intelligence for condition assessment and predictive maintenance in port infrastructure <i>(Mr Tauqeer Ahmed, Mr Anwar Rodrigues, Mr Cebolenkosi Mzotho, Mr Mpho Ramuhulu, Ms Maxine Jacobs)</i> Transnet National Ports Authority South Africa	Standardisation of Inland Waterways in Europe <i>(Mr Ivo Ten Broeke)</i> Ministry Of Infrastructure And Water Management, Rijkswaterstaat Netherlands	Innovative research on novelty environmentally friendly rock-filled mattress solution for scour prevention design in berthing structures <i>(Gianluca, Mr. Arne van der Houf, Ms. Helena I. S. Nogueira, Mr Christian van Nieuwenhuizen, Mr Paolo Di Pietro, Mr Marco Vicari)</i> Officine Maccaferri Spa Italy	MARCOM WG 212: Criteria for acceptable movement of ships at berths <i>(Mr Majid Yavary, Mr Martijn de Jong, Dr Wim van der Molen, Ms Marta Mendizabal, Dr Sundar Prasad, Mr Jonathan Woodhams, Dr Thibaut van Zwijnsvoorde)</i> Baird Australia

11h25 - 11h50

Optimisation and timing of design and maintenance of a Caspian Sea channel network facing a downward trend in water level <i>(Mr Arjan De Heer, Mr Louwrens Elzinga, Mr Julian Masters)</i> Witteveen+Bos Netherlands	The development of a vessel under-keel clearance system for the ports of South Africa <i>(Mr Christophe Troch, Mr Sarel Haasbroek, Mr Luther Terblanche, Mr Johan Kieviet)</i> CSIR South Africa	A Smart Port looks after its waterfront infrastructure <i>(Mr Henk Voogt)</i> Port of Rotterdam Netherlands	Perspective for the use of labyrinth weirs on waterways <i>(Dr Michael Gebhardt, Fabian Belzner)</i> Federal Waterways Engineering and Research Institute (BAW) Germany	A Showcase of Nature-Inclusive Design Solutions for Resilient Port Infrastructure <i>(Andrew Rella)</i> Econcrete United States	A study on the variation of harbor tranquillity caused by sea level rise <i>(Dr Kyu-tae Shim, Prof Kyu-Han Kim)</i> Catholic Kwandong University South Korea
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11h50 - 12h15

Methodology for dredging management contracts, case study of Brazilian ports <i>(Mr Fernando Alonso Martinez, Ms Priscila Farias, Mr Eduardo Lourençatto Cruz)</i> Umi San Hidrografia e Engenharia LTDA Brazil	Increasing vessel draft and operational transit windows in tangier med using physics based system <i>(Mr Simon Brandi Mortensen, Mr Tim Womersley, Dr Reeza Kaazerooni, Mr Alex Harkin, Mr Jacob Suhr, Ms Prema Bhautoo, Mr Florian Moretti)</i> DHI A/S Australia	Asset management in ports: An overview and best practices <i>(Mr Tauqeer Ahmed, Mr Ashveer Sathanund, Ms Maureen Julie, Ms Maxine Jacob, Mr Mpho Ramuhulu, Ms Nomvuyo Nkabinde, Ms Phumelele Mthembu, Ms Rorisang Methola)</i> Transnet National Ports Authority South Africa	First Comprehensive Code of Practice for Planning, Construction and Operation of Water-filled Rubber Gates <i>(Ms Gabriele Peschken, Dr Amir Rahimi, Dr Michael Gebhardt, Mr Martin Deutscher)</i> Federal Ministry for Digital and Transport Germany	Resilient Port of Future: Case study on the sustainable construction of the Patimban Port Development Project <i>(Dr Phuong Dong, Mr Hiromi Namiki, Mr Kenichi Iwama, Karya Aditya, Mr Putra Asmara Andilas)</i> Oriental Consultants Global Indonesia	PORTS – FENDER WORKSHOP The new PIANC Fender Guidelines 2023 by WG211 <i>(Mr Erik Broos, Mr Alfred Roubos)</i> Port of Rotterdam Authority The Netherlands
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12h15 - 12h40

Shaping the seabed: Current innovations in dredging and management in the context of currents <i>(Mr Ashley Nyambi, Mr Takalani Manyuma, Mr Kulani Mayayise, Mr Pat Melene, Mr Thabo Mathabatha)</i> MVE Consulting South Africa	Underkeel clearing studies for port operations <i>(Mrs Ilham Atmane, Mr Amine El Karam)</i> Anp Agence Nationale Des Ports Morocco	Leveraging Data Analytics for Effective Asset Management in African Ports <i>(Mr Tauqeer Ahmed, Mr Mpho Ramuhulu, Cliff Phakathi, Mr Thamsanqa Kunene)</i> Transnet National Ports Authority South Africa	Keeping Weirs Suitable for Transit – The Case of the Meuse River in The Netherlands <i>(Mr Otto Koedijk)</i> Rijkswaterstaat Wvl The Netherlands	Innovative pathways to sustainability: Exploring the Adoption of platinum slag materials in marine infrastructure Development <i>(Mr Kishan Tuls, Mr Lehlogonolo Masoga, MrGabriel Maluleke, Mr Ngoako Ramaboea)</i> University of Stellenbosch South Africa	Recommendations for berthing velocity in PIANC WG 211 <i>(Dr Alfred Roubos, Mr Rob Williams)</i> Port of Rotterdam The Netherlands
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12h40 - 13h50

LUNCH BREAK

CONFERENCE DAY 1: MONDAY 29 APRIL (CONTINUED)

PARALLEL SESSION B						
13h50 - 14h15	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS DREDGING AND RECLAMATION	PORTS – UKC/AIS SYSTEMS	PORTS – ASSET MANAGEMENT/ REHABILITATION	INLAND WATERWAYS	ENVIRONMENT: SUSTAINABLE SOLUTIONS FOR FRESH WATER	PORTS – FENDER WORKSHOP
	<p>Selecting port maintenance strategies: A trade-off analysis between cost, emissions, and accessibility</p> <p>(Mr Arash Sepehri, Dr Alex Kirichek, Mr Marcel van den Heuvel, Dr Mark van Koningsveld) Delft University Of Technology Netherlands</p>	<p>SIFLOW21. Predictive simulation of navigation channels and port infrastructure capacity with ais data assessment</p> <p>ffdh Siporf21 Spain</p>	<p>Renovation project at Bahia Blanca port liquid bulk terminal, enhancing operations and extending useful life</p> <p>(Mr Ezequiel Walter, Mr Gerardo Bessone) Consorcio De Gestión Del Puerto De Bahía Blanca Argentina</p>	<p>Optimal use of Senegal's river assets as part of the national port strategy</p> <p>(Mr Sébastien Page, Kris De Decker, Mrs Astrid Laemont, Mr Mamoudou Bocoum) IMDC Belgium</p>	<p>The Impact of critical water levels on container inland waterway transport</p> <p>(FelipeBedoya-Maya) University of Antwerp Belgium</p>	<p>Backgrounds partial energy factor for fender design proposed by PIANC WG211</p> <p>(Mr Jeffrey Oskamp, Mr Rob Williams, Mr Alfred Roubos, Mr Bob Lamont-Smith, Mr Svein Nyvoll) Port of Rotterdam The Netherlands</p>
14h15 - 14h40	<p>CSD SPARTACUS – game changer in rock dredging</p> <p>(Jean-Philippe Haverbeke, Jan van den Broecke, Joachim Beckers, Lode Vancauwenbergh, Mr Tom Nees) Deme Group Belgium</p>	<p>Managing navigation and environmental considerations in fuel hub anchorage design</p> <p>(Mr John Burns) Ayesa United Arab Emirates</p>	<p>Structural assessment and design of strengthening work in an existing shipyard for a large FPSO</p> <p>(Mr Sohail Minhas) Royal Haskoningdhv Viet Nam</p>	<p>Approach for reviving inland waterways for transport in africa – the case of south sudan</p> <p>(Mr Richard Van Liere, Mr Harrie de Leijer, Mr Bernard Aritua) NESTRA The Netherlands</p>	<p>Habitat restoration with beneficial use of dredge material from navigation channels</p> <p>(Michael Ritz) United States Army Corps of Engineers United States</p>	<p>Fender system selection in PIANC WG211</p> <p>(Mr Jeffrey Oskamp, Mr Rob Williams, Mr Alfred Roubos, Mr Bob Lamont-Smith, Mr Svein Nyvoll) Moffatt & Nichol United States</p>
14h40 - 15h05	<p>A holistic port basin expansion dredging design approach for port Victoria, Seychelles</p> <p>(Ms Yasmin Kistner, Mr Roy van Ballegooyen, Mr Marius Rossouw, Mr Marthinys Retief) WSP South Africa</p>	<p>Maritime traffic risk analysis of proposed Mombasa gate bridge using ship automatic identification system data</p> <p>(Miss Juliet Wangui Wamugi, Miss So-Ra Kim, Prof Young-Soo Park, Prof Dae-Won Kim) Korea Maritime and Ocean University South Korea</p>	<p>Hay point ship loader and berth replacement: retrofit to extend the service life by 50 years</p> <p>(Mr Richard Morgan, Mr Dan Squires, Mr Adam Mayers, Mr Matt Lyons, Ms Grace Go) Aspec Engineering Australia</p>	<p>Hydraulic testing and effect monitoring in the tugutang fishway project on the Xiangjiang river</p> <p>(Dr Lequn Zhu, Dr Xiaoxiang Feng, Dr Juntao Li, Dr Neng Wang, Dr Yunping Yang) Tianjin Research Institute for Water Transport Engineering, M.O.T. China</p>	<p>Natural and nature-based features to minimize erosion of reservoir shorelines</p> <p>(Dr Travis Dahl, Dr Christopher Haring, Ms Kathleen Harris, Ms Cassandra Everett, Dr Amanda Tritinger) USACE ERDC-CHL United States</p>	<p>Structural capacities of ship's parallel hull subject to fender-induced berthing impact loads</p> <p>(Ms Emma Adriana Berendsen, Dr Alfred Roubos, Mr Rob Williams, Dr Carey Walters, Mr Erik Broos) Van Oord Marine Dredging & Marine Contractors The Netherlands</p>
15h05 - 15h35	TEA BREAK					

CONFERENCE DAY 1: MONDAY 29 APRIL (CONTINUED)

PARALLEL SESSION C

15h35 - 16h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS DREDGING AND RECLAMATION	PORTS – UKC/AIS SYSTEMS	PORTS – ASSET MANAGEMENT/ REHABILITATION	INLAND WATERWAYS	ENVIRONMENT: INNOVATION IN DELIVERING SUSTAINABLE SOLUTIONS	PORTS – FENDER WORKSHOP
	Dredging of coastal lagoons: the case of Barra Velha lagoon – Santa Catarina – Brazil <i>(Mr Mauricio Torronteguy, Ms Juliana Menegucci)</i> MTCN Brazil	Challenges in Port of Rio de Janeiro in the implementation of virtual ATONs for the allowance of manoeuvring bigger ships <i>(Mr Leonardo Soares)</i> LS CONSULTORIA NAVAL Brazil	Residual structural performance evaluation for piers using artificial intelligence <i>(Dr Kunihiro Uno)</i> Penta-Ocean Construction Co., Ltd. Japan	An alternative to riprap scour protection at a berth expansion project, port Freeport, Texas <i>(Mr Gabe Bolin, Mrs Rocio Lopez Velasco, Mr Gerry Kehler)</i> Synthetex, LLC United States	The Implementation of Green Label for promoting sustainability in waterborne transportation <i>(Augusto Vedan)</i> Antaq Brazil	Comparison of fender dimensions PIANC WG211 and PIANC WG33 <i>(Dr Alfred Roubos, Ms Prasanthi Mirihagalla, Mr Marco Gaal, Mr Gerard Blankers, Mr Perry Groenewegen)</i> Port of Rotterdam Netherlands
16h00 - 16h25	Dredging the Durban tug jetty basin with a cutter suction dredger <i>(Mr Buhle Sigalelana)</i> Transnet National Ports Authority South Africa	Under-keel studies for port operations growth <i>(Mr Amine EL KARAM, Ms Ilham Atmane)</i> Anp <i>(Agence Nationale Des Ports)</i> Morocco	Sustainable smart approaches to port maintenance in the wake of climate change: an African perspective <i>(Mr Takalani Manyuma, Mr Thabo Mathabata, Mr Ruan Aucamp)</i> MVE Consulting South Africa	Innovations in Inland Waterways (INCOM): from Decarbonisation to <i>(Prof Philippe Rigo)</i> University of Liege Belgium	Inland Navigation: Pathway for sustainable Urbanization and Industrialization <i>(Lanre Badmus)</i> West Coast Business Support Services Nigeria	Recommendations for fender testing in PIANC WG 211 <i>(Mr Harvinder Singh, Mr Mishra Kumar, Mr Dominique Polte, Mr Vitomir Mihajlovic, Dr Hitoshi Akiyama)</i> Jacobs Australia
16h25 - 16h50	Innovative applications of cutter soil mixing technique as seabed soil improvement <i>(Mr Jordan Lagnado, Mr Fabrice Mathieu, Mr Gustavo Pereira)</i> Soletanche Bachy France	PORTS – PORT UTILISATION Application of Numerical Modelling to Assess Wave-induced Ship Response and Port Downtime <i>(Dr Yabin Sun)</i> CCCC-FHDI Engineering Co., Ltd. China	Advanced materials methods driving new life in critical steel navigation structures <i>(Dr Guillermo Riveros)</i> US Army Engineer Research & Development Center United States	PIANC working group 236: Sustainable management of the navigability of natural rivers <i>(Dr Calvin Creech, Dr Erik Mosselman, Dr Jean-Michel Hiver, Dr Nils Huber)</i> PIANC United States	Towards Environmental Sustainability and Societal Wellbeing: Unpacking the Impacts of Mega Port Developments in Kwa Zulu Natal <i>(Dr Rajan Chetty, Mr Muziwokuthula Ntuli)</i> Transnet South Africa	Wrap up/Discussion
16h50 - 17h15	Expanding the port area using contaminated dredged sediments <i>(Ms Hege Stusvik)</i> Port of Oslo Norway	Fundamental Study on Understanding the Behaviour Characteristics of Breakwaters during Tsunami Events <i>(Mr Naonori Kuwabara, Mr Kenichi Maeda, Mr Tatsuya Matsuda)</i> NEWJEC.INC Japan	Maritime Autonomous Surface Vessels (MASS): A Comprehensive Study on Market Implications and Regulatory Considerations <i>(Mr Augusto Vedan, Mrs Cyrce Queiroz e Silva)</i> Antaq Brazil	Best practices in planning inland waterways multimodal platforms <i>(Mr Allard van Riel, Mr Philippe Rigo, Ms Laure Roux, Ms Ksenija Banovac, Mr Didier Baudry, Mr Matthieu Bogaert, Mr Marian Constantinescu, Mr Turi Fiorito, Ms Sarah Gilissen, Ms Ana Paula Harumi Higa)</i> Ports of Lille France	Quick scan on ESG impacts of Port Development; creating sustainable port capacity <i>(Abel Knipping)</i> Witteveen+bos Netherlands	

CONFERENCE DAY 2: TUESDAY 30 APRIL

07h30	REGISTRATION					
08h45 - 09h30	PLENARY 2					
	PARALLEL SESSION D					
09h35 - 10h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS DREDGING AND RECLAMATION	PORTS – PORT UTILISATION	ENVIRONMENT	INLAND WATERWAYS: LOCK WG206 (PART 1)	ENVIRONMENT: SUSTAINABILITY IN COASTAL / SMALL ISLAND ENVIRONMENTS	PORTS – BOLLARD AND MOORINGS
	<p>Risk of accretion within port entrances and tidal navigational channels in dredging projects</p> <p><i>(Mr Mohammad Hossein Yadollahi)</i> HKA United Kingdom</p>	<p>The general standard depth of sea areas for fishing vessels' primary evacuation from tsunamis</p> <p><i>(Mr Hiroshi MATSUMOTO, Mr Katsuhiko NAKAMURA, Mr Takuji GOTO, Mr Hiroyuki IWASE)</i> Fisheries Agency Japan</p>	<p>A Roadmap towards eliminating inland navigation greenhouse gas emissions and air pollutants - State of Play</p> <p><i>(Laure Roux)</i> Ccnf France</p>	<p>INCOM Working Group 206 Report "Design of Navigation Locks"</p> <p><i>(Mr John Clarkson)</i> US Army Corps of Engineers United States</p>	<p>Sustainable coastal management: a case study for resilient island nations</p> <p><i>(Dr Hyun Dong Kim, Mr Xiao Yu, Prof Jane Smith, Prof Kyu Han Kim)</i> University Of Florida United States</p>	<p>What is a safe working load for your bollard by WG186?</p> <p><i>(Mr Erik Broos, Capt Jörg Pollmann, Capt Jan Dlugosch, Mr Wim Hoebee, Mr Adrian Kahl)</i> Port of Rotterdam Authority The Netherlands</p>
10h00 - 10h25	<p>Sediment loss from the mud island dredged material placement area, Australia</p> <p><i>(Dr Jesper Nielsen, Dr Jason Antenucci, Mr Michael Linde)</i> Seaport OPX Australia</p>	<p>Storm surge and tsunami risk assessment in ISE Bay under future climate conditions</p> <p><i>(Mr Masafumi Saito)</i> Oriental Consultants Co., Ltd., Japan</p>	<p>Development of the CNP Certification for Container Terminals, a certification system to objectively evaluate their decarbonization efforts</p> <p><i>(Ms Ruka Tomita)</i> Ministry of Land, Infrastructure, Transport & Tourism Japan</p>	<p>Lock Planning & Design in the context of PIANC Working Group 206 Handbook Lock Design</p> <p><i>(Mr Erwin Pechtold, Mr Greg Murray, Mr Peter Hunter)</i> Rijkswaterstaat The Netherlands</p>	<p>A Green Port in the Pacific Islands: Enhancing the Safety, Security and Sustainability of Apia Port</p> <p><i>(Mr Justin Cross, Ms Silalomanu Isaia, Mr Soalo Kuresa)</i> Royal HaskoningDHV Vietnam</p>	<p>The effect of combination mooring lines on ship mooring operability in wave-exposed ports</p> <p><i>(Dr Tim Gourlay)</i> Perth Hydro Australia</p>
10h25 - 10h50	<p>Sediment transport modelling to investigate deposition and dredging around the Port of Port Elizabeth breakwater</p> <p><i>(Mr Pierre-Malan Hugo, Mr Stephen Luger, Mr Stewart Walker, Mr Andy McClarty)</i> PRDW Consulting Port and Coastal Engineers South Africa</p>		<p>Sailing ahead towards reducing the carbon footprint in the fender industry</p> <p><i>(Mr Dominique Polte, Mr Jan-Christoph Schoeler)</i> ShibataFenderTeam Group Germany</p>	<p>Handbook for Navigation Design – PIANC WG 206</p> <p><i>(Mr John Clarkson)</i> US Army Corps of Engineers United States</p>	<p>Sustainability and resilience best practices for marina planning</p> <p><i>(Esteban Biondi)</i> Applied Technology and Management United States</p>	<p>Passing vessel effects due to internal waves and stratification on moored vessels in ports</p> <p><i>(Dr Alireza Valizadeh, Dr Hisham Elsaffi, Simon B. Mortenson, Dr Jason P. Antenucci)</i> Dhi Water And Environment Australia</p>
10h50 - 11h20	TEA BREAK					

CONFERENCE DAY 2: TUESDAY 30 APRIL (CONTINUED)

PARALLEL SESSION E						
11h20 - 11h45	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS DREDGING AND RECLAMATION	PORTS – DIGITAL ENGINEERING	ENVIRONMENT	INLAND WATERWAYS – LOCK WG 206 (PART 2)	ENVIRONMENT: SUSTAINABILITY IN COASTAL / SMALL ISLAND ENVIRONMENTS	PORTS – BOLLARD AND MOORINGS
	<p>Assessing port accessibility for the implementation of the nautical bottom approach</p> <p><i>(Dr Alex Kirichek, Floor Bakker, Thijs Braaksma, Prof Mark van Koningsveld)</i> Tu Delft Netherlands</p>	<p>Digital engineering for ports</p> <p><i>(James Melvill)</i> WSP South Africa</p>	<p>Zoomed-out corridor-level shipping emissions, zoomed-in ship-level causes, and everything in between</p> <p><i>(Solange van der Werff, Prof Dr Marc van Koningsveld)</i> Delft University Of Technology Netherlands</p>	<p>Monte-carlo mooring simulations for inland navigation locks</p> <p><i>(Mr Fabian Belzner, Dr.-Ing. Carsten Thorenz, Univ.-Prof. Dr.-Ing. habil. Mario Oertel)</i> Federal Waterways Engineering and Research Institute (BAW) Germany</p>	<p>Roundtable Discussion: Integrating Working with Nature and Nature-Based Solutions into Long-Term Sustainable Sediment Management</p> <p><i>(Dr Victor Magar, Dr Burton Suedel, Dr Andrew McQueen)</i> Ramboll</p>	<p>Smart bollard: real-time monitoring of mooring line loads for enhanced port safety and efficiency</p> <p><i>(Mr Gerjant Strietman)</i> Straatman Bv Netherlands</p>
11h45 - 12h10	<p>Sailing through fluid mud: current advances and challenges</p> <p><i>(Dr Alex Kirichek, Dr Stefano Lovato, Nino Ohle, Erwin ten Brummelhuis, Stoffel Rocks, Edwin Hupkes)</i> Tu Delft Netherlands</p>	<p>BIM-GIS integration for HA NAM channel upgrade project</p> <p><i>(Khoi Tran, Dr Anh Le Assoc. Thao Nguyen)</i> Portcoast Viet Nam</p>	<p>Propulsion decarbonisation based clean energy development</p> <p><i>(Patrick Hemp)</i> ICOMIA United Kingdom</p>	<p>WG 206 - A paper on gate, valves and temporary closure</p> <p><i>(Travis Adams)</i> USA</p>		<p>Enhancing maritime efficiency and safety with smart technologies in South African Ports</p> <p><i>(Mr Tauqeer Ahmed, Captain Naresh Sewnath, Mr Vasu Naidoo)</i> Transnet National Ports Authority South Africa</p>
12h10 - 12h35	<p>Project Nautical Depth: New Approaches in safe berthing and sailing through fluid mud at Hamburg-Port</p> <p><i>(Mr Nino Ohle, Mr Ulrich Schmekel, Dr.Ing. Carl-Uwe Böttner, Dr.Ing. Ivan Shevchuk, Prof. Dr.-Ing. Moustafa Abdel-Maksoud, Dr Alex Kirichek)</i> Hamburg Port Authority Germany</p>	<p>Application of BIM in assessing and re-designing of wharf structure after vessel collision</p> <p><i>(Prof Thao Nguyen, Mr Khoa Ly, Ms Thu Nguyen, , Dr Anh Le)</i> Ho Chi Minh City University Of Technology (HCMUT), VNU-HCM Viet Nam</p>	<p>Research on low carbon port construction based on clean energy development</p> <p><i>(LQ Meng)</i> CcccTianjin Port Engineering Institute Ltd China</p>	<p>WG 206 - Hydraulic of filling and emptying of locks</p> <p><i>(S. Roux)</i> France</p>		<p>Implementation of Vertical ShoreTension® Dynamic Mooring System at Peru LNG</p> <p><i>(Dr Wim van der Molen, Mr Roberto Salinas, Mr Doug Scott, Mr Celso Rodriguez, Mr Gerrit van der Burg, Mr Chris Clement, Mr Juan Luis Salinas, Mr Ariel Gasca, Mr Gerard Spaan)</i> Baird Australia</p>
12h35 - 13h35	LUNCH BREAK					

CONFERENCE DAY 2: TUESDAY 30 APRIL (CONTINUED)

PARALLEL SESSION F						
13h35 - 14h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS DREDGING AND RECLAMATION	PORTS – PLANNING AND DEVELOPMENT	ENVIRONMENT	INLAND NAVIGATION: INLAND NAVIGATION, WATERWAYS, PORTS AND TERMINALS	ENVIRONMENT: SUSTAINABLE DREDGING AND BENEFICIAL USE (PLANNING)	PORTS – BOLLARD AND MOORINGS
	Control of invasive plant species in the Gbaga channel dredging and ecological restoration project (TOGO-BENIN) <i>(Dr Roeland Adams, Dr Bernard Wéry, Dr Lucy Gwen Gillis, ir. Jeroen Depaepe, ir. Sébastien Page)</i> IMDC Belgium	Unleashing the power of waterborne innovations: 15-year legacy of port and coastal infrastructure in Romania <i>(Mr Sebastian Iglesias, Mr W. Ockeloen, Mr GM Smith)</i> Van Oord Netherlands	A Guide for assessing and managing effects of underwater sounds from navigation infrastructure activities <i>(Dr Andrew McQueen, Mr Spencer Shute, Dr Elena San Martin, Mr Frans Lafeber, Mr Daan Rijks)</i> US Army Corps of Engineers United States	Euris – evolution of a central gateway for european inland waterway information <i>(Mr Thomas Zwicklhuber, Mr Ivo ten Broeke, Mr Christoph Plasil)</i> via donau - Österreichische Wasserstraßengesellschaft MbH Austria	Maintenance Dredging Risk Minimisation: Beneficial Use Assessments And Implementation Of Environmental Windows / Seasonal Restrictions <i>(Mr Roy van Ballegooyen, Dr Brent Newman)</i> WSP South Africa	The difference between a static and dynamic mooring analysis for large container ships in wind <i>(Dr Alex Van Deyzen, Mr Jeroen Van De Sande, Ms Ly Nguyen)</i> Royal HaskoningDHV Netherlands
14h00 - 14h25	PORTS – BREAKWATER/ COASTAL MODELLING	Innovative and alternative applications of traditional methods to overcome Africa's waterborne transport challenges <i>(Mrs Valerie Vanlshout, Mr Geert-Jan van der Wielen, Mr Frederik Mabesoone)</i> Royal HaskoningDHV Netherlands	Resource Saving Potential of Seawater Air-Conditioning Systems – A Case Study in Cape Town, South Africa <i>(Dr James Joubert)</i> Ecolution Consulting South Africa	Implementing the new automatic identification system for aids to navigation in the antarctic <i>(Sebastian Garcia, Mr Mariano Luis Marpegan)</i> EMEP S.A. Argentina	Working with Nature in the port of Seville. The Navigation Optimization project of the Guadalquivir <i>(Mr Rodrigo García Orea, Mr Antonio Bejarano Moreno, Mr Angel Pulido Hernández)</i> Seville Port Authority Spain	To a safe mooring of large container ships in wind <i>(Dr Alex Van Deyzen, Mr Coen Egggermont, Ms Ly Nguyen)</i> Royal HaskoningDHV Netherlands
	Coastal Protection Development and Evaluation of OXOS: An Innovative Optimised X-section Offshore Structure <i>(Mr Kishan Tulsi, Dr Andre Theron, Prof Andre van Tonder)</i> University of Stellenbosch South Africa					
14h25 - 14h50	Design of Concrete Mattress with Porous Open Holes for Wave Protection to Harbour Slopes <i>(Mr Mitchell Furborough, Mr Martin George Hawkwood, Mr George Michael Hawkwood)</i> Proserve Ltd United Kingdom	Principles of flexibility in port masterplans. The Italian experience <i>(Andrea Ferrante, Mrs Serena D'Amora)</i> High Council Of Public Works - Ministry Of Infrastructure And Transport Italy	Proposal of the environmental quality index in Northeast Asia ports <i>(Hiroki Matsumoto)</i> Port and Airport Research Institute Japan	VHF data exchange system (vdes). A new digital communication system for maritime and inland navigation <i>(Stefan Bober)</i> German Federal Waterways and Shipping Agency Germany	Beneficial Use of Dredged Material – Results of the PIANC ENVICOM Report <i>(Dr Victor Magar, Dr Burton Suedel, Dr Luca Siffoni, Mr Thomas Vijberberg, Mr Francois DeKeuleneer, Mr Colm Sheehan, Mr Colin Scott)</i> Ramboll Colombia	Beginnings of a unified approach to mooring system design: working load limits' literature review, observations <i>(Mr Julian Cajiao)</i> Hatch Canada
14h50 - 15h15	Study on the stability of three-layered rock armour in breakwater roundheads exposed to long waves <i>(Mr Thomaz Tessler, Mr Hans Burcharth, Mr Thomas Andersen, Mr Mads Eldrup, Mrs Débora Braga)</i> Tessec Brazil	Port Expansion Project, Freetown, Sierra Leone <i>(Mr Gordon Rankine, Mr Jonathan Baker, Ms Gemma Turner)</i> Beckett Rankine United Kingdom	3D simulations of bubble curtain's interaction with floating plastics and litter in ports and waterways <i>(Ms Foteini Kyrousi, Dr Theofano I. Koutrouveli, Dr Boudewijn Decrop)</i> IMDC Belgium	Impact assessment of cargo reconstruction on the container inland waterway transport (IWT) logistics system <i>(Dr Peter Shobayo, Felipe Bedoya-Maya, Adrien Nicolet, Prof Edwin van Hassel, Prof Bilge Atasoy, Prof Thierry Vanelslander)</i> University of Antwerp Belgium	Environmental characterization of dredging sediments for the construction of the new "darsena europa" dock <i>(Dr Enrico Pribaz, Dr Andrea Carli, Dr Ilaria Lotti, Dr Pietro Chiavaccini)</i> Autorità di Sistema Portuale del Mar Tirreno Settentrionale Italy	Snapback! Management of mooring line safety through the application of dynamic line tensioning systems <i>(Mr David Tidy, Mr Nick Labrosse)</i> Trelleborg Australia
15h15 - 15h45	TEA BREAK					

CONFERENCE DAY 2: TUESDAY 30 APRIL (CONTINUED)

PARALLEL SESSION G

15h45 - 16h10	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	ENVIRONMENT	INLAND NAVIGATION: INLAND NAVIGATION, WATERWAYS, PORTS AND TERMINALS	ENVIRONMENT: SUSTAINABILITY	PORTS – BOLLARD AND MOORINGS
	Physical model tests on stability and overtopping of the new Cubilok™ concrete armour unit <i>(Miss Melissa Cairns, Mr Anton Holtzhausen, Mr Carl Wehlitz, Mr Andre Theron)</i> PRDW Africa South Africa	Banjul port's 4 th expansion: a review of masterplan proposed solutions to existing drawbacks <i>(Mr Asier Ruiz, Mrs Veronica Veleda)</i> ALG Global Infrastructure Advisors SLU Spain	April 2022 KZN floods: The effects of climate change on the port of Durban <i>(Axola Qumba)</i> Transnet National Ports Authority South Africa	Price regulation in Brazil inland navigation <i>(Sr Pedro Celso Rodrigues Fonseca, Sr Isaac Monteiro do Nascimento)</i> Brazilian National Waterway Transportation Agency Brazil	Sustainable Inland Waterways <i>(Mr Andreas Dohms, Mr Burton Suedel)</i> Federal Waterways And Shipping Administration Germany	Snapback to the future: new methods for parted mooring line analysis <i>(Mr Jordan Butler)</i> Wallbridge Gilbert Aztec Australia
16h10 - 16h35	Cubes versus cubipods for the outer port San Antonio breakwater, Chile <i>(Dr José Luis Monsó, Prof Jentsje Van der Meer)</i> Sener Mobility Spain	The masterplan supporting the successful future growth of the port of Durban <i>(Ms Paz Arteijo, Mr Selvan Pillay, Mr Damane Hlalele)</i> Arup United Kingdom	Managing Climate Change Uncertainty Using Dynamic Adaptive Flood Risk Management Planning <i>(Mr Rick Kool, Klavs Bundgaard, Charlotte Sinkbæk Schow)</i> NIRAS / Technical University of Denmark Denmark	Assessment of importance – Performance perceptions of commuters on inland water transport in Kochi, India <i>(Dr N M Sabitha, Ms NS Sherin, Mr VS Sanjay Kumar, Dr VS Manju)</i> NATPAC India	Reporting PIANC's Environmental Commission Progress Towards Advancing Sustainable Navigation Infrastructure <i>(Dr Suedel Burton)</i> US Army Corps of Engineers United States	A sustainable solution for reinvigorating ageing bollards <i>(Mr Rob Gabbitas, Mr Richard Jowitt)</i> Ship2shore Engineering Ltd United Kingdom
16h35 - 17h00	Low carbon, high-density coastal armour units for managing increased risk with climate change <i>(Dr Ron Cox, Ben Modra, Prof Stephen Foster, Paul Ryan)</i> Water Research Laboratory Unsw Australia	The development of a port masterplan project in Southern Vietnam <i>(Phuc Tran Tan, Dr Anh Le, Prof Thao Nguyen)</i> Portcoast Consultant Viet Nam	Port Infrastructure and Community Resilience <i>(Horacio Salerno)</i> Horacio Enrique Salerno Portes Spain	Next steps in the prediction of inland vessel states using a multiple hypothesis approach <i>(Mr Florian Gschwandtner, Dr Dr.-Ing. Alexander Lutz, Prof. Dr.-Ing. habil. Thomas Meurer)</i> Argonics / KIT Germany	Sustainability frameworks and PIANC role <i>(Esteban Biondi)</i> Applied Technology and Management United States	New mooring system for GPS wave observation buoys <i>(Dr Muneo Tsuda, Dr Yoshiaki Kuriyama, Mr Yutaka Okazaki, Mr Kiichiro Kozeni, Mr Daisuke Tanisada, Dr Tomotsuka Takayama, Mr Shouhei Kaita, Dr Motoki Araki)</i> Coastal Development Institute of Technology Japan

CONFERENCE DAY 3: WEDNESDAY 01 MAY

07h30	REGISTRATION					
08h45 - 09h30	PLENARY 3					
	PARALLEL SESSION H					
09h35 - 10h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	PORTS – STRUCTURES	INLAND NAVIGATION: INLAND NAVIGATION, WATERWAYS, PORTS AND TERMINALS	ENVIRONMENT	PORTS – NAVIGATION
	<p>3D physical model study for proposed remedial works to the port of Richards Bay breakwaters</p> <p><i>(Mr Carl Wehlitz, Mr Eugène Mabile)</i> CSIR South Africa</p>	<p>Nador West Med Port masterplan – Facilities and infrastructure planning for transferring cargo</p> <p><i>(Miss Eugènia Poveda Santiago, Mr Najat Chaouq, Mr José Luís Estrada Llaquet)</i> Sener Mobility Spain</p>	<p>Seismic isolators and their contribution to reduce structure weight and related carbon footprint</p> <p><i>(Mr Gabriel Vargas, Mr Jorge Bauerle, Mr Felipe Maier, Mr Daggo Mellado)</i> PRDW Consulting Port and Coastal Engineers Chile</p>	<p>Development of a new tool for validating lock levelling</p> <p><i>(Mr Jeroen Vercruyssen, Egemen Ozden, Pascal Aerssens, Fien Van Bastelaere, Mr Kristof Verelst, Mr Ben Wolput, Davy Depreiter, Steven Muylaert, Wijnand Vanhille, Stefan Geerts An Schrijvers, Sébastien Poitoux)</i> Flanders Hydraulics Belgium</p>	<p>A methodology for climate proofing inland navigation infrastructure: The Seine Schelder project</p> <p><i>(Mustafa Nazareli)</i> Haedes BV Belgium</p>	<p>Towards safer vessel navigability in ports: Validation of Ship Manoeuvring Simulation and its use as an engineering tool</p> <p><i>(Ms Maria Eduarda Chame, Mr Eduardo Aoun Tannuri, Mr Pedro Cardoso Mello, Mr Edson Mesquita dos Santos)</i> Numerical Offshore Tank Brazil</p>
10h00 - 10h25	<p>Development of 3D digital modelling method for wave-dissipating works</p> <p><i>(Dr Jun Mitsui, Dr Shin-ichi Kubota, Mr Masaya Hashida, Dr Satoshi Noboru)</i> Fudo Tetra Corporation Japan</p>	<p>Upgrade of the Europa Terminal to a future-proof deep sea container terminal at Port of Antwerp-Bruges</p> <p><i>(Mrs Maxime Van Beveren, Mr Filip Mortelmans)</i> Port Of Antwerp-Bruges Belgium</p>	<p>Conventional analysis of tandem sheet pile structures</p> <p><i>(Mr Brian Shaw)</i> Moffatt & Nichol United States</p>	<p>New verification of existing massive hydraulic structures: A framework</p> <p><i>(Mr Claus Kunz)</i> Bundesanstalt für Wasserbau Germany</p>	<p>Ecofriendly embankments along the river Lys part 1: Concept, realisation and monitoring</p> <p><i>(Dr Stephan Creelle, Ir Peter Ratinckx, Dr Jeroen Hillewaere)</i> De Vlaamse Waterweg Nv Belgium</p>	<p>The use of navigation tests to optimize the layout of a new port infrastructure</p> <p><i>(Dr Enrico Pribaz, Dr Ilaria Lotti, Dr Andrea Carli, Dr Pietro Chiavaccini)</i> Autorità di Sistema Portuale del Mar Tirreno Settentrionale Italy</p>
10h25 - 10h50	<p>Breakwater and quay wall design for looe flood defence</p> <p><i>(Miss Estelle Swart, Mr James Melvill, Mr Simon Burchett)</i> WSP, Consulting Maritime Engineers South Africa</p>	<p>The development of Port of Oslo's container terminal</p> <p><i>(Ms Maren Elise Bengtson)</i> Oslo Havn KF Norway</p>	<p>South Paray domestic wharf, Vanuatu – piling and dredging in coralline material</p> <p><i>(Mr Kane Satterthwaite)</i> Becca New Zealand</p>	<p>How to take in service safely the biggest Sea Lock in the world?</p> <p><i>(Mr Allert Schotman, Mr Arne Hout van der, Mr Wim Kortlever, Mr Ronald Kempenaar, Mr Pieter Valk)</i> Dutch Pilot Organisation (Loodswezen Amsterdam-IJmond) The Netherlands</p>	<p>Ecofriendly embankments along the river Lys part 2: Designing with Nature</p> <p><i>(Dr Jeroen Hillewaere, Dr Stephan Creelle, Ir Peter Ratinckx)</i> SBE nv Belgium</p>	<p>Applicability of a simplified calculation method for estimating ship tractive force due to wind load</p> <p><i>(Dr Haruo Yoneyama, Dr Hiroaki Kashima)</i> Port and Airport Research Institute Japan</p>
10h50 - 11h20	TEA BREAK					

CONFERENCE DAY 3: WEDNESDAY 01 MAY (CONTINUED)

PARALLEL SESSION I

11h20 - 11h45	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	PORTS – STRUCTURES	INLAND NAVIGATION: SYSTEMS AND INFRASTRUCTURES: DESIGN & MANAGEMENT FOR INLAND NAVIGATION PROJECTS	ENVIRONMENT	PORTS – NAVIGATION
	<p>Inter-dependence of antifer armour stability along different breakwater segments as witnessed from physical model testing</p> <p><i>(Dr Sanjeewa Wickramaratne, Ms Nalika)</i> Lanka Hydraulic Institute Ltd Sri Lanka</p>	<p>Container terminal capacity utilization modelling as a key competitive strategy; the case of Brazilian Ports</p> <p><i>(Mr Joao Vieira, Mr Marvin Kastner, Phd. Jean Caprace)</i> Dp World Brazil</p>	<p>Towards sustainable port infrastructure by performing full-scale pile load tests</p> <p><i>(Dr Alfred Roubos, Mr Dirk Lange, de, Mr Kevin Duffy, Mr Egbert Wal, van der, Prof. Dr. Ken Gavin)</i> Port of Rotterdam Netherlands</p>	<p>Report on handling accidents in navigation structures by PIANC INCOM WG 241</p> <p><i>(Mr Bart Bommelyn)</i></p>	<p>Beyond economic benefits: How societal expectations affect grant funding in the united states</p> <p><i>(Ms Elizabeth Collins)</i> Collins Engineers, Inc. United States</p>	<p>Ship's squat when sailing asymmetrically in an approach channel</p> <p><i>(Prof Guillaume Delefortrie, Jeroen Verwilligen, Prof Evert Lataire)</i> Ghent University Belgium</p>
11h45 - 12h10	<p>Mach reflection effects at special quay wall layouts under very oblique wave attack</p> <p><i>(Dr. Nils B. Kerpen, Dipl.-Ing. Stefan Kohn, Dipl.-Ing. Robert Howe, Prof Torsten Schlurmann)</i> Leibniz University Hannover, Ludwig-Franzius-Institute Germany</p>	<p>Improving multi-use port facilities through key design parameters</p> <p><i>(Mr Robert Taylor, Mr Keith Mackie, Mr Keith Jones)</i> Bardex Corporation United States</p>	<p>Adoption of steel pipe sheet pile quay wall with press-in method on rocky foundation</p> <p><i>(Mr Yoshimoto Koyanagi, Mr Masafumi Miyata, Mr Mitsuhiro Nakamura, Mr Keiji Machida)</i> Japan International Cooperation Agency Japan</p>	<p>Study on operation characteristics of miter gate in qianwei shiplock with water level of 335m</p> <p><i>(Miss Luzhidan Fu, Prof Yaan Hu, Prof Xiujun Yan, Prof Zhonghua Li)</i> Nanjing Hydraulic Research Institute China</p>	<p>Leveraging public-private partnerships for sustainable port development: benefits, challenges and guidelines</p> <p><i>(Mr Waynand Dreyer, Mr Tauqeer Ahmed, Mr John Samuel, Mr Clint Townsen)</i> The South African Institution of Civil Engineering South Africa</p>	<p>The navigable frontier canal of the African rift</p> <p><i>(Mr Jean-Marc Deplaix)</i> Ecole Superieure des Transports, Paris France</p>
12h10 - 12h35	<p>3D physical model study for the Haifa breakwater retrofit design</p> <p><i>(Mr Carl Wehlitz, Ms Lukhanyo Somlota)</i> CSIR South Africa</p>	<p>Capacity of multipurpose berths</p> <p><i>(Mr Horacio Salerno)</i> Horacio Enrique Salerno Portes Spain</p>	<p>SmartSheetPile: Advanced structural health monitoring solution for structures made of steel sheet piles</p> <p><i>(Dr Abir Gallala)</i> Arcelormittal Luxembourg</p>	<p>Path Planning for Inland Vessels based on Fast Marching Algorithm</p> <p><i>(Mr Hongwei He, Mr Marc Mansuy, Mr Jeroen Verwilligen, Prof Guillaume Delefortrie, Prof Evert Lataire)</i> Ghent University Belgium</p>	<p>Adaptive procurement: Fostering innovation towards sustainable and reliable infrastructure</p> <p><i>(Mr Oscar Iván Soto Reyes)</i> APM TERMINALS Panama</p>	<p>Historical evaluation of the navigability of the Western Scheldt for ultra large container ships</p> <p><i>(Mr Jeroen Verwilligen, Mrs Katrien Eloot, Mr Dieter Meire, Mr Guillaume Delefortrie)</i> Flanders Hydraulics Belgium</p>
12h35 - 13h35	LUNCH BREAK					

CONFERENCE DAY 3: WEDNESDAY 01 MAY (CONTINUED)

PARALLEL SESSION J						
13h35 - 14h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	PORTS – STRUCTURES	INLAND NAVIGATION	ENVIRONMENT: SUSTAINABLE DREDGING AND BENEFICIAL USE (DELIVERY)	PORTS – NAVIGATION
	<p>Current and vessel-induced loading on submerged tunnel elements at Port of Antwerp: numerical and physical modelling</p> <p>(Dr Boudewijn Decrop, Mr John Alderson, Mr Tijs Cornu, Mr Philippe Van Gorp, Ms Foteini Kyrusij) Imdc Belgium</p>	<p>Improving the function of Mombasa port as a logistics hub in the Northern Corridor</p> <p>(Mr Yuya Ueda, Mr Taisuke Maniwa, Ms Ayumu Uchida) Japan International Cooperation Agency Japan</p>	<p>New construction technology of high-pile wharf under green intelligent mode</p> <p>(Mr Hongxing Lin) Cccc Second Harbour Engineering Company China</p>	<p>Evaluation of hydraulic and nautical performance of sea lock IJmuiden after two years of operation</p> <p>(Mr Arne van der Hout, Mr Allert Schotman, Mr Ronald Kempenaar, Mr Wim Kortlever) Delfares / TU Delft The Netherlands</p>	<p>Sand as a Resource, best practices to conduct responsible dredging projects</p> <p>(Mr. René Kolman, Mr Jan Fordeyn, Mr Tom Janssens, Mr Sjon Kranendonk, Mr Thomas Vijverberg) IADC Netherlands</p>	<p>Design approach for the access channel of Port Victoria, Seychelles</p> <p>(Mr Marius Rossouw, Mr Luther Terblanche, Mr Christophe Troch) WSP South Africa</p>
14h00 - 14h25	<p>Exact and approximated solutions to the critical flow speeds in canals</p> <p>(Prof Guillaume Delefortrie, Jeroen Verwilligen, Marc Vanforre, Prof Evert Lataire) Ghent University Belgium</p>	<p>Woreta dry port – Helping to connect landlocked Ethiopia to international trade</p> <p>(Ms Yasmin Kistner, Mr Marthinys Relief) WSP South Africa</p>	<p>Design and fabrication of concrete caissons. Theory and real projects</p> <p>(Mr Alfonso Capote, Mr Daniel Zamora, ACCIONA) Spain</p>	<p>Improving the accessibility of the wallon waterway network for larger ships using six-degrees-of-freedom ship manoeuvring simulators</p> <p>(Mr Marc Mansuy, Dr Maxim Candries, Dr Katrien Eloot, Mr Sébastien Page, Dr Catherine Swartenbroekx, Dr Didier Bousmar) Ghent University Belgium</p>	<p>Porto central's adaptive dredging management plan</p> <p>(Mrs Juliana Jacomini Menegucci, Mr Gilberto Carvalho Pereira, Mr Marcelo Travassos) Porto Central / MTCN Consulting Brazil</p>	<p>The use of spar buoys for horizontal gains in navigation channels</p> <p>(Ms Priscila Farias, Mr Allan Machado, Mr Robson Maia, Ms Natalia Paiva, Ms Luna Ewald, Mr Rafael Neves, Mr Diego Loureiro, Mr Luis Guilhermen Sodre) Umi San Hidrografia E Engenharia Brazil</p>
14h25 - 14h50	<p>Transmission characteristics of free surface breakwaters</p> <p>(Mr Stephen Priestley) Beca Ltd New Zealand</p>	<p>Impact of inter-modal asset integration on South Africa's economic outlook: A cross-sectoral analysis</p> <p>(Mr Kishan Tulsi, Mr Lehlogonolo Masoga, Mr Gabriel Maluleke, Mr Ngoako Ramaboea) University of Stellenbosch South Africa</p>	<p>Innovative quay wall upgrade to operate 2nd-generation triple-e containerhips at Barcelona's APM terminal</p> <p>(Mr Pablo Sánchez, Mr Pedro S. Vila, Mr Lucas Herrero, Mr Francesc Candel, Ms Agnès Vila, Mr Toni Cerra) GPO Ingeniería y Arquitectura S.L.U. Spain</p>	<p>Hydrodynamic model and Pusher-Barge system manoeuvring simulations in a high-sinuosity meandering river (Lower Jurua River, Amazon Basin, Brazil)</p> <p>(Mr Luiz André Schiaveto Neto) Universidade De São Paulo (usp) Brazil</p>	<p>An efficient tool for environmental control in dredging operations</p> <p>(Mr Juan Cruz Andrini, Mr Leonel Temer) EMEP S.A. Argentina</p>	<p>Understanding the dynamics of an ebb tide delta to assess the feasibility of a greenfield port</p> <p>(Mr Andrew Brown, Dr Tom Shand, Mr Richard Reinen-Hamill, Mr Peter Quilter, Mr Chris Freer, Ms Sarah McCarter, Ms Marie McCarthy, Ms Shannon Wanty, Mr Jaco Valstar, Mr Daniil Popov, Mr Greg Britton, Mr Frans Hoogerwerf, Mr Bas Van Dijk, Dr Alexis Berthot, Dr Sarah Gardiner, Dr Mariana Cussioli, Mr Mark Oxley, Mr Mick Payze, Capt. Gary Neil, Dr Murray Ford) Tonkin & Taylor Ltd New Zealand</p>
14h50 - 15h15	<p>Thermally activated quay walls in harbours subjected to tidal influence</p> <p>(Mr Kacper Cerek, Jürgen Grabe) Hamburg University Of Technology Germany</p>	<p>Research on integration strategy of China-Africa Global Supply Chain of Minerals</p> <p>(Dr Lequn Zhu, Dr Ran Zhou, Dr Xiaojun Li) Tianjin Research Institute For Water Transport Engineering, M.o.t China</p>	<p>Deepening and strengthening of n-berth in the Port of East London</p> <p>(Mr Sedy Monyemangene, Mr Kaelan Veerasamy) Transnet National Ports Authority South Africa</p>	<p>Comparing navigability of the dutch rivers meuse and waal following the pardé-coefficient</p> <p>(Mr Jourian Ligtenberg, Mr Frederik Vinke) Rijkswaterstaat The Netherlands</p>	<p>Dredging in sensitive environmental systems</p> <p>(Mr Alberto Del Pino) Dravo S.A Spain</p>	<p>Improving the accessibility of a port in a complex tidal brackish environment</p> <p>(Dr Oliver Stoschek, Patrick Storz, Horst Nasner, Ulrich Kraus) INROS LACKNER SE Germany</p>
15h15 - 15h45	TEA BREAK					

CONFERENCE DAY 3: WEDNESDAY 01 MAY (CONTINUED)

PARALLEL SESSION K

15h45 - 16h10	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	PORTS – STRUCTURES	INLAND NAVIGATION: SYSTEMS AND INFRASTRUCTURES: DESIGN & MANAGEMENT FOR INLAND NAVIGATION PROJECTS	ENVIRONMENT	PORTS – CLIMATE CHANGE
	<p>New techniques for the implementation of coastal protection structures: The Porto central hybrid breakwater</p> <p>(Mrs Juliana Jacomini Menegucci, Mr Mauricio Torronteguy, Mrs Michele Patricia de Lorena) Porto Central / MTCN Consulting, Brazil Brazil</p>	<p>Stepwise development approach for exposed berths – Case study Sohar port, Oman</p> <p>(Mr J.M.R. Schmidt, Dr M.P.C. De Jong, Mr R.J. Crowther, Mr T. Al Kiyumi) Sohar Port and Freezone Netherlands</p>	<p>Safety ladders on open quay walls: solving cantilever installation and reducing co2 footprint</p> <p>(Mr Kim Haaning, Mr Bo Kristian Jeppesen) Port-Safety Denmark</p>	<p>Structural health monitoring of port and waterways infrastructure: discussing findings of PIANC working group 199</p> <p>(Dr Brian Eick, Mr Quincy Alexander) Us Army Corps Of Engineers United States</p>	<p>Tsunami hazard assessments in ports: Case studies from the Indian and Pacific Oceans</p> <p>(Dr Jose Borrero, Prof Patrick Lynett, Mr Wellington Renteria) Ecoast Marine Consulting And Research New Zealand</p>	<p>Global variability of climate change impacts on ports illustrated by assessing twenty major seaports worldwide</p> <p>(Mr Freek Scheel, Mr Martijn de Jong, Mr Wiebe de Boer, Mr Joao Dobrochinski) Deltares, Delft, The Netherlands Netherlands</p>
16h10 - 16h35	<p>Research & Development in Berth Scour Protection</p> <p>(Mr Martin Hawkwood, Mr George Michael Hawkwood, Mr Mitchell Furborough) Proserve Ltd United Kingdom</p>	<p>Planning for the phased automation of a brown-field container terminal</p> <p>(Mr Rodney Hancock, Mr Martyn McColgan) Royal Haskoningdhv Australia</p>	<p>Field test for the consolidation of the existing CDF in Livorno Port</p> <p>(Dr Enrico Pribaz, Dr Pietro Chiavaccini, Dr Andrea Carli, Dr Ilaria Loffi) Autorità di Sistema Portuale del Mar Tirreno Settentrionale Italy</p>	<p>Innovations in Shiplifts Navigation Concepts</p> <p>(Dr Gensheng Zhao, Yaan Hu) Nanjing Hydraulic Research Institute China</p>	<p>Installation and Effects of Flap Gate-Type Breakwater against Tsunami and Storm Surge</p> <p>(Mr Fumiaki Kakizuka, Dr Yuichiro Kimura, Mr Seiji Mizutani, Mr Turo Yamashita, Mr Masaaki Sasaki, Mr Masayuki Fudo, Dr Kenichiro Shimosako, Dr Akira Nagano, Dr Osamu Kiyomiya) Hitachi Zosen Corporation Japan</p>	<p>Supporting the business case to adapt existing ports to the changing climate</p> <p>(Mrs Jan Brooke) PIANC Permanent Task Group On Climate Change United Kingdom</p>
16h35 - 17h00	<p>Innovations in berth scour protection for piled quays at Al Faw Grand Port, Iraq</p> <p>(Mr George Hawkwood, Mr Martin Hawkwood, Mr Mitchell Furborough) Proserve Limited United Kingdom</p>	<p>Implementation of advanced automation in bulk material handling in the new SAFI Atlantic Port, Morocco</p> <p>(Ms Ikram Atmane, Mr Ayoub Taqi, Mr Khalid Jebbour, Mr Khalid El Asri) Jesa Morocco</p>	<p>FEA design of vessel blocking plans using engineered materials</p> <p>(Mr Robert Taylor, Mr Keith Mackie, Mr Keith Jones) Bardex Corporation United States</p>	<p>Gate Vibrations – Measurements in Nature and Laboratory</p> <p>(Dr Michael Gebhardt, Jennifer Pfrommer, Martin Deutscher, Walter Metz) Federal Waterways Engineering and Research Institute (BAW) Germany</p>	<p>Use of high-strength steel mesh modules as a rational and efficient coastal protection measure</p> <p>(Mr Juan-Louis de Beer, Mr Roberto J. Luis-Fonseca, Mr Julio Prieto Fernández, Mr Mahan Sheibani, Mr Peter McCourt, Mr Urs Dornbierer) Geobrugg South Africa</p>	<p>Climate change risk and vulnerability assessment and adaptation strategies for South African ports</p> <p>(Mr Roy van Ballegooyen, Marius Rossouw, Dr Njabulo Siyokatshana, Prof Francois Engelbrecht, Ms Tania Daniels, Mr Vishern Beakam, Dr Mohau Mateyisi, Mr Chris Troch, Dr Tamaryn Moris, Mr Laurie Barwell) WSP South Africa</p>

CONFERENCE DAY 4: THURSDAY 02 MAY

PARALLEL SESSION L

08h45 - 09h10	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – PLANNING AND DEVELOPMENT	PORTS – STRUCTURES	INLAND NAVIGATION	ENVIRONMENT	PORTS – CLIMATE CHANGE
	Field experiences on innovative solutions against jet propeller actions using rock-filled mattress for scour prevention in harbors <i>(Mr Paolo Di Pietro, Mr Alexander Plastre, Mr Gianluca Brocca) Officine Maccaferri S.p.a. Italy</i>	Offshore wind farms – Operability of port facilities and traffic interference <i>(Mr Jose R. Iribarren, Ms Lourdes Pecharroman, Mr Leandro Pires, Mr Raul Redondo, Mr Raul Atienza, Carlos) B. Cal Siport 21 Spain</i>	Berthing deepening in Spain: Technical practice, strategies and policy <i>(Dr Enrique Asanza-Izquierdo Cedex Spain)</i>	Ship locks made out of prefabricated concrete elements <i>(Mr Claus Kunz, Mr Stefan Lühr, Ms Jacqueline Schmied, Mr Tobias Zowada, Mr Maximilian Kaiser) Bundesanstalt für Wasserbau Germany</i>	Vessel behaviour under varying environmental conditions in coastal areas <i>(Solange van der Werff) Delft University of Technology Netherlands</i>	Ports adaptation measures to climate change and the increase in ship sizes <i>(Prof Fernando Veloso Gomes) Faculdade Engenharia Universidade Do Porto Portugal</i>
09h10 - 09h35	PORTS – OPS/ Decarbonisation	The development of a port masterplan project in Southern Vietnam <i>(Mr Khoi Tran Phuc Minh, Dr Anh Le, Assoc. Dr Thao Nguyen) Ho Chi Minh City University Of Technology (HCMUT), VNU-HCM Viet Nam</i>	INLAND NAVIGATION: SYSTEMS AND INFRASTRUCTURE: DESIGN & MANAGEMENT FOR INLAND NAVIGATION	Pinglu Canal – A new waterway to sea in western China <i>(Mr Peng Wu) CCCC Water Transportation Consultants Co., Ltd. China</i>	Navigation risk assessment criteria fro offshore wind farms in Estonia <i>(Inge Zaiiseva-Pamaste) Tallinn University of Technology Estonia</i>	High resolution climate hazard assessments in ports, a case discussion for Cotonou and Banjul <i>(Laila Romero, Jesús Peña-Izquierdo, Víctor Estrella-Pérez, Cristian Florindo, David Teruel, Jorge Calvin, Thais) Fontenelle Lobelia Earth Spain</i>
	Predictive simulation of onshore power supply (OPS) requirements for ports <i>(Mr Raul Redondo, Mr Raul Atienza, Mr Jose Ramon Iribarren, Mr Arturo Medio, Mr Luis Ulla) Siport21 Spain</i>		European multimodal transport using inland navigation – Comparing barriers and potential solutions on Rhine and Danube <i>(Bianca Duldner-Borca) University of Applied Science Upper Austria Austria</i>			
09h35 - 10h00	PORTS – BREAKWATER/ COASTAL MODELLING	PORTS – CONSTRUCTION	A Method for Designing and Implementing a Control Testing System for Common Autonomous Ship Models <i>(Mr Dongyuan Chen, Dr Mao Zheng, Mr Shigan Ding, Prof Xiumin Chu, Miss Jiafen Lan, Miss Tianyue Zou) Wuhan University Of Technology China</i>	Quantifying the system-scale effects of local countermeasures at locks against saltwater intrusion and freshwater losses <i>(Mr Floor Pieter Bakker, Mr Mark Van Koningsveld) Delft University Of Technology The Netherlands</i>	Review of Recent South African Studies of the High-Water Mark <i>(Mr Keith Mackie, Prof Jennifer Whittal) Consultant South Africa</i>	Climate Change Impact on Ecuadorian Ports: Assessing Damages and Adaptation Strategies <i>(Mr William Jaen) INATEC Ecuador</i>
	Use at source' model for green hydrogen: Decarbonization at the Port of Ngqura <i>(Mr Tauqeer Ahmed, Mr Yashtheel Sheochand, Ms Motlarso Molapo) Transnet National Ports Authority South Africa</i>	Research on the construction path of zero-carbon ports <i>(Dr Xiaojun Li, Dr Ran Zhou, Dr Lequn Zhu) Tianjin Research Institute For Water Transport Engineering, M.o.t China</i>				
10h00 - 10h25	PORTS – GREEN ENERGY	Various problems on executing port building projects in Africa <i>(Mr Masafoki Nakanishi, Dr Aykut Pamuk, Mr Damian Romaniak, Mr Yuki Nomoto) Oriental Consultants Global Japan</i>	Standardisation of inland waterways in Europe <i>(Ivo Ten Broeke)</i>	Backflow in Downstream of Navigation Shiplock Approaching Channel in Sharp Bends <i>(Dr Gensheng Zhao) Nanjing Hydraulic Research Institute China</i>	Derivation of Tropical Cyclone Generated Waves on East Coast of Oman for Design Conditions <i>(Mr Marius Rossouw, Mr Gert Jacobs, Mr Marthinus Relief) WSP South Africa</i>	PORTS – FENDERS
	New Comprehensive PIANC Guidelines for the Design of Clean Fuels Marine Terminals, Including Hydrogen/ Ammonia/Methanol/ BioFuels/LCO2 <i>(Mr Ron Heffron) COWI United States</i>					Cyclic conditions and impact on marine fenders <i>(Mr Marco Gaal) Trelleborg The Netherlands</i>
10h25 - 10h50	Design for ports in transition – New LNG deep water berth at Rostock port <i>(Mr Torsten Retzlaff) Inros Lackner SE Germany</i>	Port construction in the open mediterranean sea under adverse conditions: Hadarom Port, Israel <i>(Dr Ran Tao, Dr Ruiyi Huang, Dr Wenyuan Wang, Dr Yun Peng) China Communications Construction Company Ltd. China</i>	Examining the Impact of Mobile Modular Terminals on Barge Congestion in European Seaports <i>(Mr Cyril Alias, Mr Jonas zum Felde, Mr Bengt Ramne, Mr Edwin van Hassel) DST - Development Centre for Ship Technology and Transport Systems Germany</i>	Rehabilitation of inland waterway lock and operational impact (Ooigem - Canal Lys Roeselare - Belgium) <i>(Mr Bart Callaert, Mr Robin Timmermans, Mr Lieven Dejonckheere, Mr Peter De Meyer, Mr Gorik Noynaert) DVW - Flemish Waterways Belgium</i>	Wave forces on lock and barrier gates; Selecting the best formula for different sea states and gate geometries <i>(Mr Henry, Mr Cornel van Zaal, Mr Ermano De Almeida, Mr Kasper Stoeten) Arcadis The Netherlands Netherlands</i>	Comparison between evaluation of performances of fenders and elastomeric seismic isolators: metodologies, similarities and perspectives <i>(Dr Daniele Cuminetti, Dr Giacomo Vazzana) Materials Testing Laboratory, Politecnico di Milano Italy</i>
10h50 - 11h20	TEA BREAK					

CONFERENCE DAY 4: THURSDAY 02 MAY (CONTINUED)

PARALLEL SESSION M						
11h20 - 11h45	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – GREEN ENERGY	PORTS – CONSTRUCTION		INLAND NAVIGATION: SYSTEMS AND INFRASTRUCTURE: DESIGN & MANAGEMENT FOR INLAND NAVIGATION	ENVIRONMENT	PORTS – FENDERS
	<p>Adapting African ports for LNG and green fuel handling and transport <i>(Dr Gary Mocke, Mr Jesper Damgaard)</i> Comareng Advisory South Africa</p>	<p>Using modular floating platform to accelerate ports development facing offshore wind needs <i>(Miss Sandrine Bethmont, Mr Aldéric Blanc)</i> SECTEC TPI France</p>		<p>Harnessing the Power of Inland Waterways: A Case Study on Sustainable Urban Logistics in Amsterdam <i>(Dr Nadia Pourmohammadzia, Prof. Mark van Koningsveld)</i> TU Delft The Netherlands</p>	<p>Approaches for conservation and restoration of coastal seaweed beds that contribute to CO2 Sequestration <i>(Daiki Yasuda)</i> Fisheries Agency of Japan Japan</p>	<p>LRFD load factors for fenders in the upcoming ASCE Design of Piers and Wharves Standards <i>(Mr Rune Iversen)</i> Simpson Gumpertz & Heger United States</p>
11h45 - 12h10	<p>Stockholm Norvik Port – A carbon dioxide hub in the Baltics – Infrastructural challenges <i>(Mr Mattias Sandell)</i> Ports Of Stockholm Sverige</p>	<p>Innovative methods in construction of docks of Puerto Capurro, Montevideo, Uruguay <i>(Prof Jose Zorrilla, Marcelo Zeballos, Carlos Gerbaudo)</i> Ing. Jose M. Zorrilla Uruguay</p>		<p>Can't you add some sensors? Riskanalysis of inland waterway infrastructure on the interface between disciplines <i>(Mr Michiel Coopman)</i> De Vlaamse Waterweg Belgium</p>	<p>Coastal risk management in the makran coastal zone: A case study <i>(Dr Sahar Mokhtari, Dr Mohammad Mokhtari)</i> Ports & Maritime Organization of Iran Iran</p>	<p>Analysis of the differences between rated and experimental performance of dock fenders <i>(Dr Giacomo Vazzana, Dr Daniele Cuminetti)</i> Material Testing Laboratori di Politecnico Di Milano University Italy</p>
12h10 - 12h35	<p>Princess Elisabeth Island, the world's first offshore energy island <i>(Dr Koen Van Doorslaer, Arvid Koen Van Doorslaer, Pierre-Yves Guillermin, Marc Brouwer, Eelco Bijl)</i> DEME Belgium</p>	<p>Revolutionizing Port Infrastructure Construction in Remote Areas of Africa: Introducing a Portable Floating Piling Machine <i>(Mr Francisco Sarrias)</i> Msi - Marina System Iberica Sl Spain</p>		<p>Digital Testbeds on German Waterways <i>(Mr Nils Braunroth)</i> Federal Ministry for Digital and Transport Germany</p>	<p>An eco-friendly approach for the utilization of dredged soil resources a case study on ports in China <i>(Lequn Zhu, Dr Ran Zhou, Dr Xiaoxiang Feng, Dr Xiaojun Li)</i> Tianjin Research Institute for Water Transport Engineering, M.O.T. China</p>	<p>Establishment of rubber fender test environment investigation and certification program <i>(Dr Seigi Yamase, Mr Hiroshi Yoshinaga, Dr Satoru Shiraishi, Dr Haruo Yoneyama)</i> Specialists Centre Of Port And Airport Engineering Japan</p>
12h35 - 13h35	LUNCH BREAK					

CONFERENCE DAY 4: THURSDAY 02 MAY (CONTINUED)

PARALLEL SESSION N						
13h35 - 14h00	PARALLEL 1	PARALLEL 2	PARALLEL 3	PARALLEL 4	PARALLEL 5	PARALLEL 6
	PORTS – GREEN ENERGY	PORTS – CONSTRUCTION		INLAND NAVIGATION	ENVIRONMENT	PORTS – SHIP LIFTS AND DRY DOCKS
	<p>Low-carbon hydrogen maritime transportation by containers is ready to enable the energy transition</p> <p><i>(Dr Nikolay Kuptsov)</i> Gazprom Neft Russian Federation</p>	<p>Casting of submerged Concrete in deep Water</p> <p><i>(Mr Svein Ove Nyvoll)</i> Nyvoll Consult As Norway</p>		<p>Hydrodynamic characteristics of hydro-floating ship lift carrying 2×1000t vessels</p>	<p>Port Electrification for Container Operations and Vessels Through Masterplan</p> <p><i>Rodrigo Muricy</i> WSP United Kingdom</p>	<p>Hydrodynamic characteristics of hydro-floating ship lift carrying 2×1000t vessels</p> <p><i>(Prof. Ya'an Hu, Dr Shu Xue, Dr Bo Wu)</i> Nanjing Hydraulic Research Institute China</p>
14h00 - 14h25		<p>Case study of Santander Raos norte container terminal pavement with steel fibre reinforced concrete</p> <p><i>(Mrs Chiara Minoretti, Mr Rafael Rueda, Mr Cesar Bertolome, Mr Fernando Gutierrez Alvarez)</i> Bekaert France</p>		<p>Automation of inland ferries in limited fairways</p> <p><i>(Dr Martin Sandler, Phillip Koschorrek, Rinat Prezdneyakov, Martin Kosch, Michael Maul, Stephan Treibmann)</i> Argonav GmbH Germany</p>	<p>Green Maritime Fuels Export Potential from South African Ports</p> <p><i>(Mr Tauqeer Ahmed, Mr Thomas Roos, Mr Yasheel Sheochand, Ms Amanda Makgoga, Ms Maxine Jacob, Ms Aradhna Pandarum)</i> Transnet National Ports Authority South Africa</p>	<p>Practical Issues in the Design of Dry Docks and the Dry Docking of Ships</p> <p><i>(Mr Keith Mackie, Mr Robert Taylor, Mr Keith Jones)</i> Consultant South Africa</p>
14h25 - 14h50				<p>Introducing new waterborne container transport services into existing transport planning and monitoring practice</p> <p><i>Mr Cyril Alias, Mr Jonas zum Felde</i> DST - Development Centre for Ship Technology and Transport Systems Germany</p>		<p>Can changes to the design code improve the performance of wire rope Shiplifts?</p> <p><i>(Mr Robert Taylor, Mr Keith Mackie, Mr Keith Jones)</i> Bardex Corporation United States</p>
14h50 - 15h15	TEA BREAK					
15h15 - 16h30	CLOSING PLENARY					
19H00 - 23H00	GALA DINNER					

DAY 5: FRIDAY 03 MAY

08h00 - 16h00

TECHNICAL TOURS

TECHNICAL TOURS

Two Technical Tour options will be available to delegates on Friday, 3 May 2024.

The first tour option will be to the Stellenbosch area to visit the Council for Scientific and Industrial Research (CSIR). To end the week on a high note, the afternoon will be spent exploring the beautiful winelands of Stellenbosch, including lunch at one of the areas renowned wine farms.

The second Technical Tour option will give delegates the opportunity to visit the Port of Saldanha, along the Cape's West Coast region, famous for its fresh seafood, wild landscapes and beautiful beaches. The Tour will also incorporate some leisure exploration of the region and lunch at one of the West Coast's unique restaurants, Boesmanland Plaaskombuis.



SOCIAL PROGRAMME



The programme consists of a selection of social events, which includes a Welcome Reception and a Gala Dinner that will highlight South African and African culture and cuisine.

These events will be great opportunities to socialize and network with old friends from the PIANC family, and likeminded professionals from the international waterborne engineering community. The social events are included in the Full Delegate and Accompanying Persons registration fees.

SPONSORSHIP

The Congress offers various types of sponsorship and exhibition opportunities. This includes the sponsorship of sessions or specific items, which provides valuable branding opportunities for your organisation.

The Congress has been well-supported by sponsors and industry partners, with many of the exclusive sponsorship opportunities sold.

Currently there are limited EXCLUSIVE sponsorship packages available in these exciting categories:

- AGA Sponsorship
- Congress Mobile App Sponsorship

Please visit the Congress website to view the various sponsorship opportunities available or contact the organisers if you wish to receive a Sponsorship Prospectus or to discuss any aspect of the sponsorship opportunities.

EXHIBITION



Running parallel to the Congress will be a trade exhibition. The refreshment breaks, lunches and Cocktail functions will all take place in the exhibition area. The Poster presentations will also be hosted in the exhibition area. Combined, these events will ensure a steady stream of delegates through the exhibition area for the duration of the Congress.

This will be an ideal opportunity for your company or organisation to promote their brand, products, solutions and services to a highly targeted, captive audience from the waterborne transportation environment community.

Exhibition Costs:

Standard Shell Scheme Package 9m² – R 72,000.00

Standard Shell Scheme Package Includes:

- Unbranded fabric backwall
- 1 x Carpeted space
- 1 x Wastebasket
- 1 x Café table
- 2 x Chairs
- 1 x Power Point
- 2 x Exhibitor Registrations per 9m².
Thereafter 1x additional registration for every extra 9m² booth

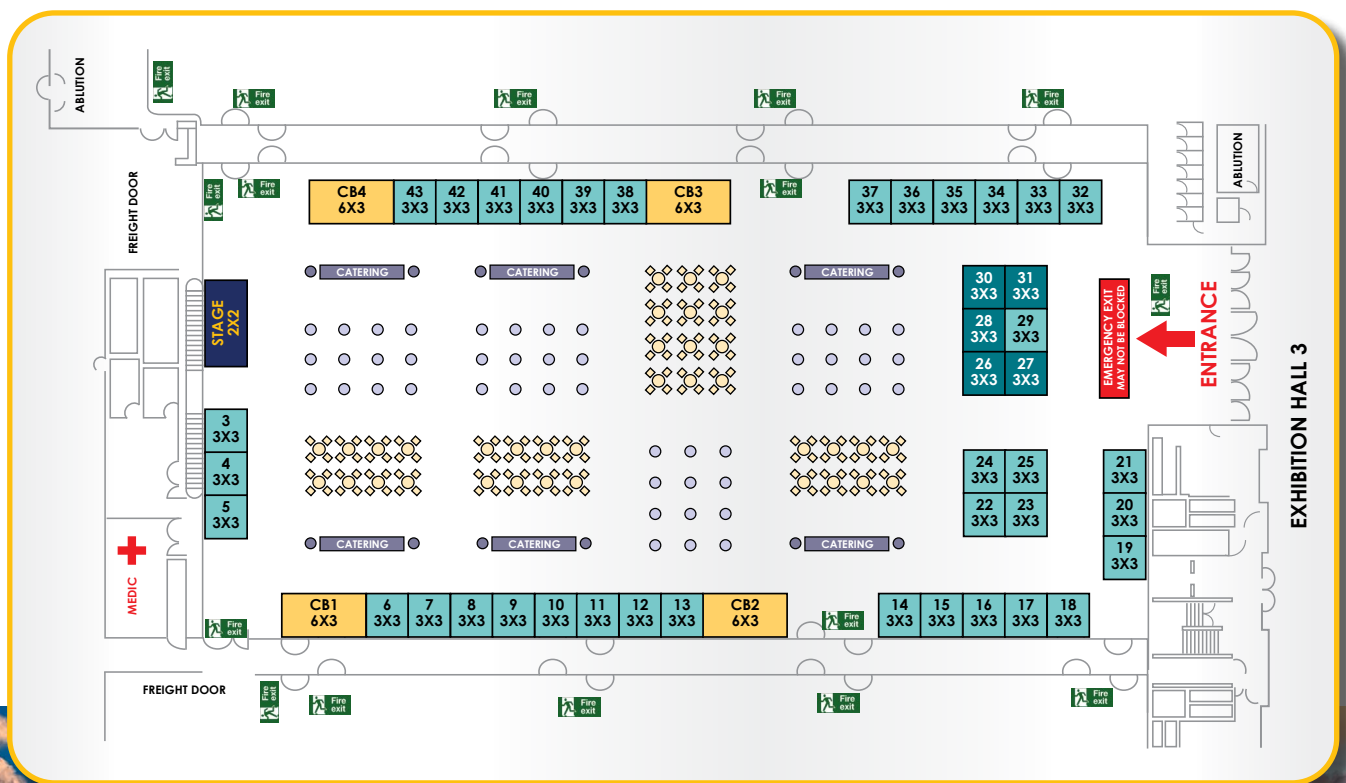
Exhibition Space Only 9m² – R 65,000.00

Exhibition Space Only Package:

- No shell scheme
- 1 x Carpeted space
- 1 x Power Point
- 2 x Exhibitor Registrations per 9m².
Thereafter 1x additional registration for every extra 9m² booth

Extra furniture, display cabinets, TV screens, plants, and other extra exhibition services are available through our partners Scan Display. The catalogue and online booking page can be accessed directly here: <https://servicesorderforms.co.za/piancworldcongress2024/>

Floorplan:





ACCOMMODATION

The PIANC World Congress 2024 will be taking place at the Cape Town International Convention Centre (CTICC). There are many modern, comfortable hotels within walking distance to the CTICC.

We have negotiated preferential rates at the following hotels for PIANC delegates – so take advantage of the savings and use the Congress booking links to reserve your room.

1. The Westin (5 Star) ★★★★★
2. Southern Sun Cullinan (4 Star) ★★★★★
3. Hotel Sky (3 Star) ★★★
4. Stay Easy Cape Town City Bowl (3 Star) ★★★

Please visit the [Congress website](#) for more information and to book your accommodation.

Please note that PIANC Congress preferential rates are only available on reservations made through the official Congress booking links.

TRANSPORT

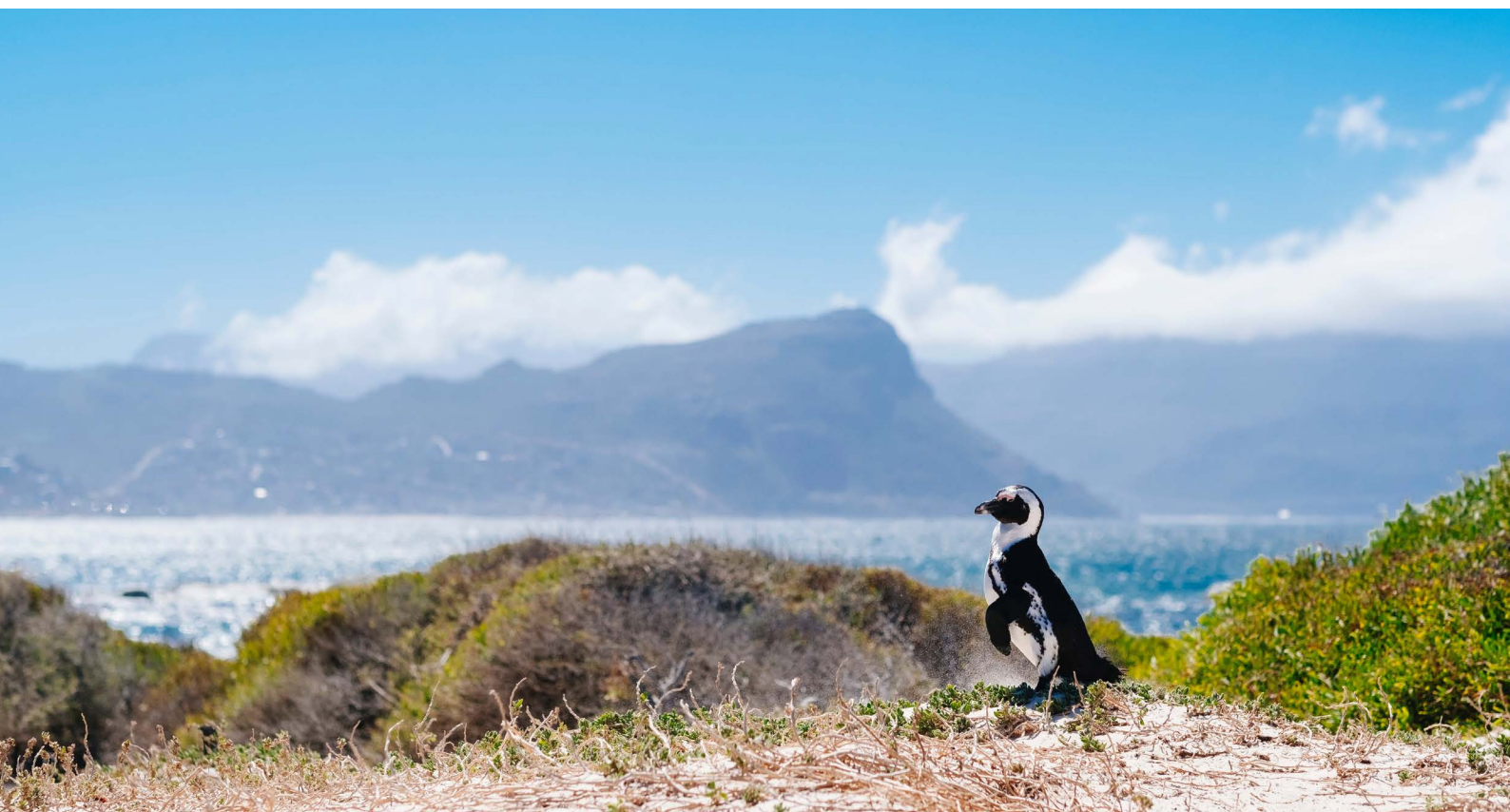
If you are planning your travel and want to pre-book a safe and reliable airport shuttle or private transfer between the Congress venue and your hotel, please visit the [Congress website](#). You can book and pay directly for this service with the transport company and have direct control over managing your booking if anything changes.

TOURS

We have curated a selection of day tours pre & post congress tours for delegates who wish take advantage of their visit to South Africa to do some sightseeing and exploring.

Tick Table Mountain and Cape Point off your bucket list; or visit our African penguin colony at Boulders Beach for an up-close experience with these wonderful creatures.

Whether you've always wanted to see the Big Five, or if you'd prefer to catch some sun and surf at one of our Blue Flag status beaches; or work your way through our world-renowned winelands, we have designed a diverse range of tours that will exceed your wildest expectations and bring Africa alive for you. Please visit the Congress website to see the selection of available tours or [click here](#) to make a booking.





ABOUT CAPE TOWN

10 Interesting Facts About Cape Town

Cape Town is a modern, cosmopolitan city surrounded by nature. Centered around Table Mountain, one of the New 7 Wonders of the World, the Mother City is known for its beautiful beaches, stunning biodiversity, award-winning food and wine, and sheer variety of experiences on offer. To help you learn a bit more about the “Mother City”, here are 10 interesting facts about Cape Town.

1. Cape Town has incredible beaches

Cape Town was the first city outside of Europe to see its beaches certified as ‘Blue Flag’ - meaning they meet high environmental and quality standards.

In 2016, 10 of the city’s beaches were awarded Blue Flag status thanks to their cleanliness, water quality, facilities, and safety.

2. The City used to be “under water”

An area of land measuring around 194 hectares known as the Foreshore, which today comprises the main Cape Town railway station and the Civic Centre, was reclaimed from the sea in the 1940s. It was known as the Cape Town Foreshore Plan and was seen as a better option than trying to build further up the slopes of the mountains which encircle the city.

3. Nelson Mandela made his first public speech post his incarceration from Cape Town

After years of apartheid, it was on the balcony of Cape Town City Hall where Nelson Mandela made his first public speech in decades. He spoke just hours after being released from prison on 11 February 1990. This was the beginning of a new era for South Africa, which endures today.

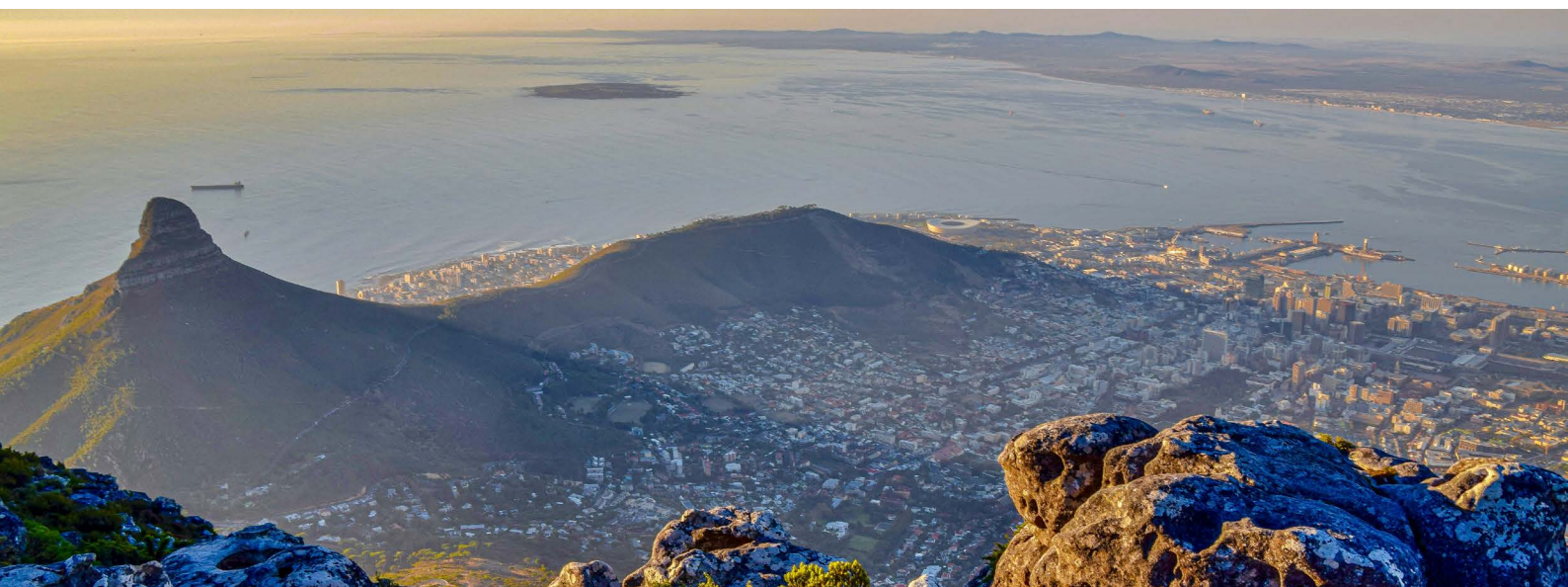
4. You can Visit Robben Island

Robben Island lies off the coast of Cape Town and is best known for the prison which housed Nelson Mandela for 18 of his 27 years spent imprisoned. Today the island is a museum, reflecting on Mandela's years here.

In Afrikaans "Robben" means "seal", and the island is also an important site for both seals and African penguins. It was also used as a leper colony in the 19th century and as a base by the British army during the Second World War. Today it is one of the most popular attractions in Cape Town (weather permitting).

5. Cape Town is a playground for the young (and young at heart)

Cape Town is one of the world's youngest cities. The average age is just 29 years, compared to 40 in Brussels and 36 in London. And the 2011 census revealed that 43% of the city's population is under 25. We're focusing on empowering our PIANC Young Persons through the YP Commission planning active engagement and activities for them during the Congress. Come rediscover your inner child here!





6. We have the world's most diverse floral kingdom

The Cape Floral Kingdom is a UNESCO World Heritage site and was inscribed on the World Heritage List in 2004. It is one of the world's great centres of terrestrial biodiversity. It includes national parks, nature reserves, wilderness areas, State forests and mountain catchment areas, with a significant number of endemic species. We call it Fynbos! Much of the Cape's plant life is endemic – it can be found nowhere else in the world.

7. We're Innovative

The world's first successful heart transplant took place in Cape Town in 1967. In a more relatable anecdote for the PIANC family, a South African is also credited with the invention of the dolos - a wave-dissipating concrete block used in great numbers as a form of coastal management (although he did not live in Cape Town)

8. One of the World's new Seven Natural Wonders is the centre of our Universe.

Table Mountain is Cape Town's most famous landmark. And it's a popular proposal spot too – it is estimated that two couples get engaged on the mountain every month! The iconic mountain is visible from almost everywhere in the City.

9. We have penguins (without ice)

A large colony of around 3,000 African penguins can be found at Boulders Beach, just outside Cape Town. African penguins are endangered and are only found in the wild in a few locations along the coast of South Africa and Namibia. For this reason, the Boulders Beach colony is heavily protected.

10. We're doing our bit to power things up

Cape Town is home to the only nuclear power plant in Africa. The Koeberg Power Station opened in 1984 and accounts for around 5% of South Africa's energy.

Source: adapted from On-the-Go blog "10 Interesting fact about Cape Town"

Cape Town has been voted as the best in the world for seven years in a row by readers of The Telegraph from 2013 – 2019 for good reason. We can't wait to welcome you to our beautiful city!

ORGANISATION

Congress Planning Committee

Magenthran Ruthenavelu

Congress Chair (Transnet National Ports Authority, South Africa)

Keith Mackie

Congress Co-Chair

Prof JS (Koos) Schoonees

Scientific Chair (University of Stellenbosch, South Africa)

Gerhard Kapp (WSP, South Africa)

Marisa Ackhurst (Worley, South Africa)

Christiaan de Wet (Hatch, South Africa)

Craig Johnson (South Africa)

Kaylen Saman (Zutari, South Africa)

Neil Lawson (PIANC, Australia)

Geert van Cappellen (PIANC HQ, Belgium)

CONGRESS VENUE

Cape Town International Convention Centre (CTICC)
Convention Square, 1 Lower Long Street, Cape Town, 8001
Telephone: +27 (0)21 410 5000

CONTACT

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Prestige Conferences (PTY) Ltd
Email: info@piancworldcongress2024.co.za

