e-Navigation
underway 2019
Asia-Pacific

www.e-navigation.website

e-Navigation Underway
Asia-Pacific 2019 Conference

September 2nd(Mon) - 3th(Tue), 2019
Millennium Hilton Hotel
Seoul, Republic of Korea

Organized by Ministry of Oceans and Fisheries   IALA   DANISH MARITIME AUTHORITY

Supported by IMO INTERNATIONAL MARITIME ORGANIZATION   International Hydrographic Organization   Australian Government Australian Maritime Safety Authority   CIRM   BIMCO   The Nautical Institute   KOREA INSTITUTE OF MARITIME AND FISHERIES TECHNOLOGY   APEC SEN

Invitation

Dear Esteemed Colleagues,

It is my great pleasure to invite you to *the 2019 e-navigation Underway Asia-Pacific Conference (2019 ENUW AP Conference)* on 2-3 September 2019 in Seoul, Korea.

The Ministry of Oceans and Fisheries (MOF) of Korea; International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA); and Danish Maritime Authority (DMA) have been co-organizing this Conference as a forum for technical discourse on e-navigation in the Asia-Pacific region since 2017 to be in line with the policy directions of the International Maritime Organization (IMO).

A compelling need to improve navigation safety and reduce human errors prompted discussions over development and introduction of e-Navigation, which has driven the IMO to take a concrete step for the service to begin from 2020. In line with the organization's vdigital move for maritime safety and security, the Conference will be focusing on prioritized e-Navigation issues in multiple sessions, including maritime autonomous surface ships (MASS), maritime digitalization and cyber security under the main theme of "e-Navigation: Implementing New Digital Maritime Services in Asia Pacific."

As a side event for the Conference, MOF, IMO and IALA will be co-organizing *the Workshop on Capacity Building for e-Navigation* on 4-6 September 2019 in Busan, to provide participants with an opportunity to share the current state of play in terms of relevant technological development and to discuss way forward.

I look very much forward to your participation in these important events.

Best Regards,

Seong-Hyeok MOON
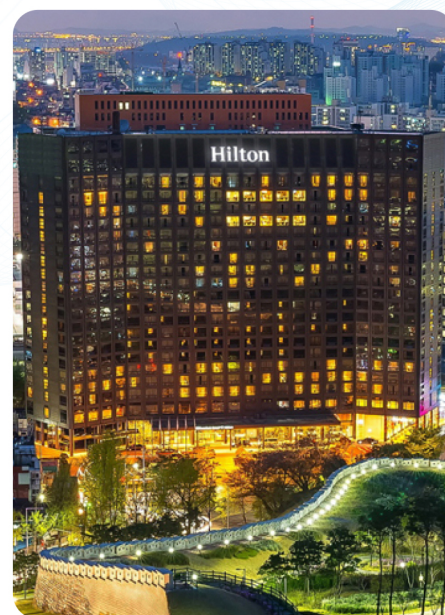
Minister of Oceans and Fisheries
Republic of Korea

Program

Opening Session	
Introduction to VIPs among participants	Host
Opening Speech	Seong-hyeok MOON (Minister, MOF)
Congratulatory Speech	Francis Zachariae (Secretary General, IALA)
Keynote Speech	Andreas Nordseth (Director General, DMA)
	Javier Yasnikouski (Representative, IMO)
Session 1: Developing and Delivering Digital Maritime Services	**Chair: Michael Bergmann (Secretary, IPCDMC)**
Testbed Cases or Products of e-Navigation Maritime Services (MS)	Michael Bergmann (Secretary, IPCDMC)
Harmonization and Interoperability among Different Standards of Platforms	Mikael Lind (Associate Professor, RISE)
Benefits and Challenges in Implementing e-Navigation for Users and Administrators	Ung Gyu Kim (CEO, e-Marine)
Testbed Cases or Products of Platforms that Enable e-Navigation MS	Jon Leon Ervik (Head of Department, NCA)
Introduction to the SMART Navigation Project	Jinhyoung Park (Researcher, KRISO)
Session 2-1: Innovations in Marine Navigation and Communications	**Chair: Nick Lemon (Manager, AMSA)**
Users' (Crew, Pilots, Shipping) Requests to e-Navigation Maritime Services	Nick Lemon (Manager, AMSA)
Smart Fairways	Thomas Erlund (Senior Vice President, MeriTaito)
Shipborne Equipment for Implementing e-Navigation: S-Mode, ECDIS, ECS, and Web	Sewoong Oh (Researcher, KRISO)
Digital Maritime Communications: VDES and D-HF/MF	Kae-Myoung Park (Manager, KR)
Digital Maritime Communications: LTE-M and SAT	Woo-Seong Shim (Researcher, KRISO)
Why Do We Need the MCP?	Thomas Christensen (Secretary General, MCC)
Session 2-2: Innovations in Marine Navigation and Communications	**Chair: Jon Leon Ervik (Head of Department, NCA)**
The Work in IMO FAL/NCSR regarding Further Development on Maritime Services	Jon Leon Ervik (Head of Department, NCA)
SESAME II Innovation and Testbed in Norway and Singapore	Bjorn Coster (Project Manager, KNC)
Orchestrating IT, OT and Data Farming for Maritime Industry	Seojeong Lee (Professor, KMOU)
New Innovative Services in NAVTOR	Borge Hetland (Sales Director, NAVTOR)
Session 3: Cooperation and Capacity Building for e-Navigation	**Javier Yasnikouski (Head, Operational Safety, IMO)**
Further Development of IMO Guidance on e-Navigation Maritime Services and Capacity Building Programmes	Javier Yasnikouski (Head, Operational Safety, IMO)
Roles of Stakeholders (Administrators, Industries, Users, NGOs, and IGOs)	Omar Eriksson (Deputy Secretary General, IALA)
International, Bilateral and Multilateral Cooperation	Weylin TANG (Deputy Director, MPA)
Web/Internet Based e-Navigation Maritime Services	Sunbae Hong (Director, MOF)
Session 4: Cyber Security in the Maritime Sector	**Chair: Thomas Christensen (Secretary General, MCC)**
Aspects of Cyber Security – Legal and Ethical	Tristan Perez (Leader Autonomy Assurance, Trusted Autonomous Systems Defence CRC)
Implementation of the Danish Cyber Security Strategy	Anette Dybdal Fenger (Director, DMA)
Cyber Security Aspects of Common Shore‐based System Architecture	Tai Hyo Kim (CEO, Formal Works Inc)
On-board Cyber Security Activities	Kwangil Lee (Professor, KMOU)
Session 5: Upcoming e-Navigation Underway Conferences	**Chair: Omar Eriksson (Deputy Secretary General, IALA)**
Introduction to ENUW NA 2019	TBD (ENUW-NA)
Introduction to ENUW International 2020	Linda Assel Hald (Project Manager, DMA)
Introduction to IALA VTS-ENAV Symposium 2020	Maarten Berrevoets (Senior Policy Advisor, Ministry of Infrastructure and Water Management)
Introduction to Workshop on e-Navigation 2019	Minsu Jeon (Technical Operations Manager, IALA)
Introduction to the Consolidated Website of ENUW Conference	Larry Yim (Liaison Officer, ENUW Secretariat)
Introduction to e-Navigation Strategies of APHoMSA Member States	TBD
Session 6: Panel Discussion and Wrap up	**Chair: Sunbae Hong (Director, MOF)**
Introduction to the Summary of Each Session by the Respective Session Chairs	Session Chairs
Panel Discussion among Each Session Chairs in Terms of Conference Highlights	Session Chairs
Q&A with Audience	Session Chairs
Adoption of Conference Highlights	Session Chairs
Closing Session	
Closing Speech	Minjong Kim (Director General, MOF)
	Francis Zachariae (Secretary General, IALA)

* Experts who wish to make a presentation, please contact the secretariat team.

Time Table

1 September 2019 (Sunday)	2 September 2019 (Monday)	3 September 2019 (Tuesday)
	Registration (08:00 - 10:00)	Session III Cooperation and capacity building for e-navigation (09:00 - 10:30)
	Opening (10:00 - 10:25)	
	Group Photo & Coffee Break (10:25 - 10:45)	Coffee Break (10:30 - 11:00)
	Session 1 Developing and Delivering Digital Maritime Services (10:45 - 12:30)	Session IV Cyber security in the maritime sector (11:00 - 12:30)
	Lunch (12:30 - 14:00)	Lunch (12:30 - 14:00)
	Session 2-1 Innovations in Marine Navigation and Communications (14:00 - 15:30)	Session V Upcoming E-Navigation Underway Conferences (14:00 - 15:10)
	Coffee Break (15:30 - 16:00)	Coffee Break (15:10 - 15:30)
	Session 2-2 Innovations in Marine Navigation and Communications (16:00 - 17:30)	Session VI Panel Discussion and Wrap up (15:30 - 17:00)
		Closing (17:00 - 17:10)
Welcoming Dinner (18:00 - 20:00)	Networking Dinner (18:00 - 20:00)	Farewell Dinner (18:00 - 20:00)

Venue

Millennium Seoul Hilton

Address: 50, Sowol-ro, Jung-gu, Seoul, Republic of Korea
Contact: +82 2 317 3278

Spouse Programs

Day 1 September 2

1. Cook and Dine: Kimchi
2. Gwanghwamun Plaza
3. The Commander of the Gate Guard
4. Gyeongbokgung Palace

Day 2 September 3

1. Namsangol Hanok Village
2. Seoul Fortress Wall
3. N Seoul Tower

Registration

Category		Early Bird (Until July 31)	Registration (August 1 - September 2)
Conference	General Participant	USD 300	USD 400
	Supporting Organization	One representative exempted (USD 300 per additional representative)	One representative exempted (USD 400 per additional representative)
Exhibition		USD 1,000 (One representative per organizing exhibitor is exempt from conference fee.)	

Contact Information

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