

Conference Abstracts & Biographies

1C – Maritime Infrastructure

Chair: Thomas Porathe, Norwegian University of Science and Technology

Autonomous, unmanned cargo shipping, for better or for worse?

Thomas Porathe, Norwegian University of Science and Technology

Abstract:

There is a rising international interest in the development of unmanned, autonomous ships. Drivers are, as usual, technological feasibility and cost cutting, but also a potential of increased safety and, even more important, a need for environmentally sustainable, low-emission, ultra-slow transportation in a world of over-population and increasing migration. In recent years, there has been a focus on autonomy within maritime research in Norway. Lacking international legislation though the IMO, testing of commercial ships presently has to be done in national waters. The Norwegian government has dedicated three coastal areas for testing of autonomous vessels and this autumn a 90 meters long, 120 TEU, container shuttle will be launched. The plan is to remove 20 000 truckloads per year from a stretch of roads in southern Norway and replace it with the electrical, unmanned shuttle. Most Norwegians live along the coast. Road-building is difficult because of long fjords and high mountains. Traditionally, ferries play an important part of Norwegian infrastructure. In 2017, 445 ferry lines had 39.5 million passengers (out of a population of 5.2 million). However, ferries are costly and are heavily subsidised by municipalities and government. The high costs of the ferries are mainly due to crew costs, and quite often, there are a conflict between the need to cut costs by lowering the ferry traffic frequency and the societal needs of the ferry users to access work places and services. This paper will look into the potential of using unmanned, or partly manned, autonomous ferries. Technical, human factors, safety and societal challenges will be discussed in the perspective of some concrete examples.

Keywords:

Autonomous ships, unmanned ships, maritime safety, remote control, ferries

Biography:

Dr Thomas Porathe is professor of interaction design at the Norwegian University of Science and Technology in Trondheim, Norway. He is specialising in maritime human factors and design of maritime information systems. He has been working with e-Navigation since 2006 in EU-projects like BLAST, EfficienSea, MONALISA, ACCSEAS and the unmanned ship project MUNIN. He is active in IALA's e-Navigation committee

The railway transport system and the integration of the inland container depot to reduce CO2 emissions in Africa

Nathaniel Fuanbial, University of Greenwich, UK

Abstract:

According to the African development bank (2015), most of the rail systems constructed in the early 20th century by the British colonial powers to facilitate the transportation of military troops into the interior of a country and the movement of mining and agricultural consignments are in a bad state of neglect. Nevertheless, Africa as a continent is witnessing significant economic, social and infrastructural growth which are viewed to create a framework for the rail system to play a unique role in the transportation system. The development of big cities, the introduction of mining activities and the effective interregional corridors are elements that can facilitate the rejuvenation of the railway system in the 21st century. A lot of literature was reviewed, and the findings revealed that, over the past years, policy architects in the transport industry at various levels have continued to promote the effective use of the railway transportation system (European Commission, 2001). Suggesting that the shift to the railway transport system can have a positive impact on the environment and will go a long way in the reduction of port congestion and space management as well.

Keywords:

Railway, inland, port, integration, transportation

Biography:

My name is Nathaniel Fuanbial, I was born in Nigeria on the 4th of April 1982 to a family of Six. I am currently attending the university of Greenwich London in an effort to obtain an MPhil/ PhD from the department of History Politics and social sciences with emphasis on maritime policy and my Research Topic is; The role of inland container depots on port congestion and economic development in Nigeria.

Furthermore, I am a graduate of the university of Jos Nigeria where I obtained a BSc in Business management in 2007, after which I proceeded to the Maritime Academy of Nigeria Oron and obtained a post graduate diploma in shipping and transport management in 2012. In 2014, I gained admission into the University of Greenwich London where I am currently studying and obtained An MA international maritime Policy. My research will further expose the environmental and economic benefits of building the inland container depots in the hinterland to reduce port congestion and as well improve the economy of the nation.

Finally, I love to travel, read, play basketball and also to relax with family and friends.

Cultural Aspects and Port Innovations. An Interaction of Typology Approach

Rien van Zetten, World Maritime University, Sweden

Abstract:

Cooperation is interaction between people. Sometimes you have the idea that it is going smooth and easy, sometimes the feeling is that you are talking on different wave lengths, with no idea to bridge that gap. Mutual understanding is not only beneficiary, it is also necessary when you have to cooperate.

In international alliances cooperation is a prerequisite. There, by definition, you will encounter different styles. How to understand each other is the central theme of this paper.

Understanding will increase if you understand why other persons don't think and act the way you do or you expect them to do.

To describe and explain differences in thinking and acting the Cultural Theory/CT of Risk is used. This theory is briefly explained in this paper. Next, the theory is used to illustrate how cooperation between people can be improved in projects that strive for innovation, like e.g. a port extension project..

Biography:

Rien studied civil engineering, environmental management and philosophy.

He is working as a senior project manager within the Dutch Ministry of Water for nearly 40 years.

He was the responsible manager for the design- and realization-phase of the large scale port extension of the port of Rotterdam. He also is very experienced in the protection of the country against floods, because he has worked in this field both in policymaking and in design and realization.

His main field of interest is to understand how people with totally different backgrounds can cooperate and understand each other.

He is visiting professor at the World Maritime University in Malmö and guest lecturer at Unesco-IHE in Delft.