IAME 2020 Conference
Special Session on “Big Data Analytics in Shipping, Ports and Logistics”

Session Organizers:

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Call for Papers

In recent years, the shipping and maritime logistics industry has started to invest in digital and autonomous technologies, with the objective to improve its operational and environmental efficiency. The whole digitalization process will be a long journey, and it is expected to take 15-25 years before the industry can utilize fully autonomous solutions to optimize global cargo flows. The first task for most companies is to collect high-frequency data from various business areas, utilizing enabling technologies such as sensors, IoT and AIS ship tracking, and storing/integrating them in the cloud. However, currently only a small percentage of ocean-going cargo ships log real-time machinery data, for instance, and send to shore or cloud. Such real-time data solution is gaining popularity and is expected to be installed on more vessels. Data itself does not provide insight; it generates values only when we combine data and analytics with our domain knowledge, experience, and expertise. Moreover, these resources are not integrated, rather they are typically fragmented and available in smaller portions within the individual players involved in the maritime logistics chain. Along with technical challenges, there exist managerial and organizational challenges for the maritime industry restricting the benefits of big data analytics. The companies who are able to handle these challenges and harvest values from these rich data sources will achieve strong competitiveness and even penetrate neighboring business areas which will eventually change the market structure.

Big data analytics and related digital business transformation challenges have gained increasing attention from researchers with many undergoing research projects. During the IAME2020 conference in Hong Kong, we intend to organize a special session(s) on this theme and to exchange latest research experiences with colleagues. We seek full paper contributions and extended abstracts referring to any sector of the maritime industry, on relevant topics such as, but not limited to, the following:

- Additive manufacturing in maritime
- Application of big data analytics in maritime
- Blockchain application in logistics
- Cryptocurrency systems and applications
- Cybersecurity in shipping
- Data resources and quality in shipping logistics
- Digital Twin and simulation for ships and logistics vehicles
- Digitalization-enabled business model transformation
Potential contributors are asked to submit an abstract following the regular submission schedule as published on the IAME2020 conference website: https://www.polyu.edu.hk/fb/IAME2020/submission/submit-a-paper. You can opt for a full paper or extended abstract. During the uploading of the abstract kindly mention that the abstract is related to the special session. You are invited to concisely follow the author guidelines of IAME2020 which can be found online. It would be helpful if you could also inform the session organizers (chengang@shmtu.edu.cn or srs@wmu.se) with the submitted abstract.

It is the intention of the session organizers to edit a special issue on the theme in a highly regarded journal after the IAME2020 conference. Authors of high-quality papers and extended abstracts will be invited to submit their full papers for the planned special issue.