

ABSTRACT SUBMISSION –– SOUMISSION DE RESUME

**Topic No.: / Sujet n° : ------------------ or / ou**

**proposed topic / sujetproposé: --**The development and theory on vessel traffic organization optimization under E-navigation strategy**--**

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ABSTRACT / RESUME:

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**---RESEARCH INTERESTS & EXPERTISE:**

** Optimization model and algorithm on ship scheduling in the port**

** E-navigation MSP**

The development and theory on vessel traffic organization optimization under E-navigation strategy

With the continuous development of E-Navigation strategic implementation plan,the intellectualization of vessel traffic organizations and service has become the core problem on waterway transportation field.Maritime service portfolios (MSPs), as a detailed manifestation of E-navigation traffic organization services, which is becoming more and more important in traffic intelligent decision system of ports and coastal restricted water areas. Based on general maritime data structure andvarious needs in different phases when vessel inbound or outbound, a standard and effective vessel transportation organizations maritime service portfolios(VTOMSP) is established. Through analyzing the dynamic characteristics of vessel transportation in different types of waterways (one-way waterway, two-way waterway and compound waterway) and influencing factors including waterway utilization, berth occupancy and anchorage using rate,the optimization models of vessel traffic organizationsare established.Under the E-Navigation framework, the basic theory for vessel traffic organizationsservice and management system is provided, and future direction of VTOMSP is analyzed.

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