

Competency Development

Monday, October 29th 2007, 16:30-18:15

CHAIRS: Jean François Fiorina

Discussants: Kazuhiko Hasegawa, and Mohamed Ayadi

MI 7 - Monday, October 29th 2007, 16:35-17:00

Le Knowledge Management: une réponse aux enjeux actuels des entreprises tunisiennes

Haythem Benamor

IHEC - University of Sousse

[Abstract unavailable]

MI 8 - Monday, October 29th 2007, 17:00-17:25

Introduction to ship technology and its application to some local areas

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Although the oceans have the power to destroy, as it does when tsunami occur, they also provide us many blessings. And yet, we humans have polluted the oceans, causing environmental issues. For humans to maintain and continuously develop the limited space we have on our planet, we must understand the interdependency we have between our actions and the environment of the oceans, we must aim to create a resource recycling society that brings humans and the oceans into a harmonious existence, and we must create scientific technologies specific to those oceans and utilize them.

From this point of view, we can say that naval architecture is a very wide field, and one that is vitally important for all people. A large amount of goods are shipped on commercial ships and the majority of oil used in the world is brought via oil tankers. Ships will always need to be built for commercial, private, recreational, military, and government entities. The main focus of today's naval architect is safety for people and the environment. Indeed, designing a ship is an extremely challenging but immensely interesting task.

Concerning Tunisia, and despite its situation in the heart of the Mediterranean, and the north of

Africa and the length of its coasts (1300 km). Tunisia does not have the necessary maritime infrastructure to play its naturally potential role as an international maritime centre. The lack of expertise and knowledge about naval architecture and marine design engineering is one of the major impediments to the development of the said maritime infrastructure. The ground for young engineers who want to specialize in the field is thus is enormous and opportunities for business are attractive. In this paper, we will introduce some of the fundamental tools in ship design and we will discuss their application way in a kind of practical approach notably in the Sfax-Kerkennah islands maritime connection.

MI 9 - Monday, October 29th 2007, 17:25-17:50

Systems of Innovation in Nanotechnology ~ Analysis of Industry and Academic Research Activities

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Nanotechnology promises significant improvements of advanced materials and manufacturing techniques, which are critical for the competitiveness of many national industries. We explore nanotechnology innovation system with an aim to understand worldwide developments in nanotechnology research from its emerging stage by highlighting cross-country comparisons, actors and institutions, discourse development as well as nanotech-knowledge networks of affiliations and countries based on a quantitative method (*tech mining and bibliometrics*). Our findings show that the significant research output of commercial companies in Japan and the United States is different from the situation in the European Union, where nano-scientific activities are dominated by academic and government research institutions. Strong links of nanotechnology research in different countries suggest the existence or the potential for a cross-border research cooperation as research teams from the concerned countries seem to adopt similar approaches to certain problems. A forecast made on nanotechnology domains indicates that nano-manufacturing and bjo-nanotechnology with high growth rates are most promising emerging fields in the near future.