

COURSE SUMMARIES

IMAGE PROCESSING FOR SUBMARINE VIDEO IMAGES

Michael Aron

Presentation of the context: what is image processing? How and why acquire underwater images? Introduction to some image processing methods (2D images). Introduction to computer vision for 3D reconstruction. Practical class for real underwater images using Matlab with image processing toolbox.

What is augmented reality? Use of computer vision to get the point of view of the user in order to be able to display -live- on the device the virtual object in 3D with the right perspective.

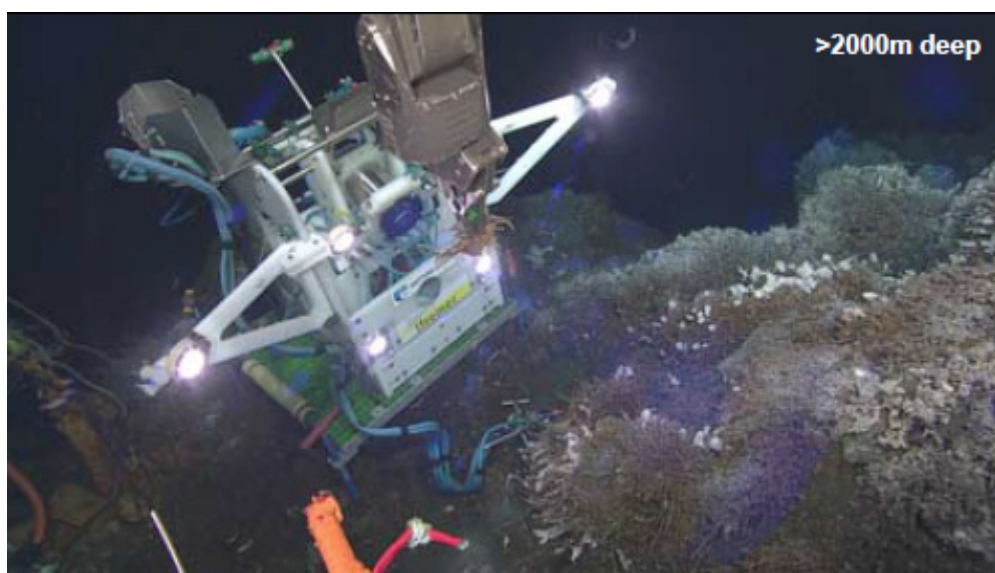


Figure 1 Tempo-mini : a real time access to the vents

ELECTRIC POWER QUALITY AND SHIP ACCIDENTS

Janusz Mindykowski

Summary

This lecture is dedicated to a wide spectrum of participants, not only related to the issue itself. The contents of the presentation consists of motivation of the undertaken analysis, introduction to the power quality concept, short overview of ship electrical power systems, interpretation of electric power quality and its assessment on marine ships, and a key part, based on the case studies related to ship accidents and catastrophes in the light of electric power quality. On the basis of the real case studies, like the accidents of Ms "Statendam" or RMS "Queen Mary 2" an apparently controversial thesis is formulated, that an impressive progress in marine technology is not always a guarantee of the ship and

shipping safety. Taking into account a present state of the art in the power quality and ship technology together, the author is trying to answer some important questions concerning, among others, such problems as: Can electrical power quality be measured on ships? What kind of criteria should be taken into consideration? Is there any legal context of this evaluation? Can the lowered power quality result with ship's accidents? Can electrical power quality be controlled? Closing the lecture, some observations and conclusions are formulated, for answering a final question: Where are we going in the field under consideration?