

Monthly Meeting for OptiColor Project

Month: August

Date: 7-October-2019

Atten.: AM (S-Innovations Ltd) and AL (RISE)

Topics Discussed

1 Review/Discussed the abstract to be submitted to East Mediterranean Offshore

Abstract

Conspicuity is the property of an object to stand out of its surroundings and attract visual attention. At the majority of Oil & Gas facilities, personnel is required to wear high-visibility safety apparel (HVSA) in order to increase conspicuity and reduce the rate of “looked-but-failed-to-see” accidents. The main factor affecting conspicuity is the color contrast between HVSA and the ambient background against which it is seen. The two widely-adopted standards for HVSA are EN ISO 20471:2013 and ANSI/ISEA 107-2015. Both standards specify three colors for HVSA: fluorescent yellow, fluorescent orange, and fluorescent red. In most situations, these three colors can offer high color contrast and succeed in increasing conspicuity. However, they are not very effective in the offshore Oil & Gas environment because similar colors are used for painting equipment and infrastructure. One example is the use of orange HVSA at an Oil & Gas platform overwhelmed by yellow and red equipment. Another example is the use of red HVSA on the brown-painted deck of a shuttle tanker. In both cases, the color of HVSA and the predominant colors in the surrounding environment are similar, rendering offshore personnel hard to spot.

This paper identifies the need for an expanded pallet of standard HVSA colors and introduces three extra colors: fluorescent green, fluorescent blue, and fluorescent magenta. Having a pallet of six HVSA colors, we proceed with the development of a simple method for determining the most effective HVSA color for a particular offshore site. At the core of the proposed method, is a Color Matrix that maps combinations of ambient background colors and HVSA colors that do not provide sufficient contrast and should be avoided. Through an elimination process, the most effective amongst the six HVSA colors is determined. Two examples demonstrating how the method is applied are also presented; one for the case of an offshore production platform and one for the case of a drilling ship. The proposed method can serve as a tool for safety practitioners wishing to quickly find effective HVSA colors. It can be used during the development of HSE Plans or during HSE Audits.

2 Lessons Learned

Discussion on the collaboration between RISE and S-Innovation. What gone well, what could have been better, how to improve, what are the possibilities for further collaboration on