

Human Factors for Project Managers

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FORMAT

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ABSTRACT

In today's industrial environments there is an increasing awareness of the need to apply sound human factors principles in the design of both physical environments and automation systems. Although the underlying principles have been well understood for some time, their application is often limited or in many cases only paid lip service to. Often linked to ergonomics and situation awareness the term Human Factors encompasses a wide range of subjects commonly including the design of control rooms, human machine interfaces and alarm systems. However, there are other elements, such as fatigue management, training, workload, communications and procedures that are often overlooked. Organizations address many of these issues through policies and procedures, specifically targeted at day-to-day operations, but provide little guidance in terms of project execution. It is not unusual to find that project managers are surprised by a sudden revelation that work, which had not been accounted for, needs to be funded and resourced. It is also common for elements to be cherry picked a practice that often leads to additional expense, resource requirements or time.

From the perspective of a former automation project manager and now human factors consultant, this paper will provide insight into how the individual elements should be considered as part of every project. In so doing the paper will identify the best practices out there today along with relevant standards and guidelines.

About the Authors:

David Lee, CEng, FIChemE is a Chemical Engineer by degree, and over the last 30 years has held posts in Control Engineering, Operations and Project Management, becoming a Human Factors Consultant in 2007. He is Chartered Engineer and Fellow of the Institute of Chemical Engineers and an active member of ISA, on the board of ChemPID and several standards committees.