SCIENCE*SPRING*DAY

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FACULDADE DE
CIÊNCIAS E TECNOLOGIA
UNIVERSIDADE NOVA DE LISBOA

UNIDEMI – Research Unit in Mechanical and Industrial Engineering

(RA_X)   (LARG MIT)

Research Team POM

R&D Unit in Mechanical and Industrial Engineering

Isabel L. Nunes

PhD in Industrial Engineering - HF/Ergonomics (UNL, 2003).

Main research interests: ergonomics, usability, health & safety at work and production systems analysis using artificial intelligence models and fuzzy logics.

Objectives

RA_X project
The objective is the development of the Risk Analysis Fuzzy Expert System to assist risk management processes, key for the promotion of safety and health at work, by identifying and assessing occupational risks and advising on the application of safety measures.
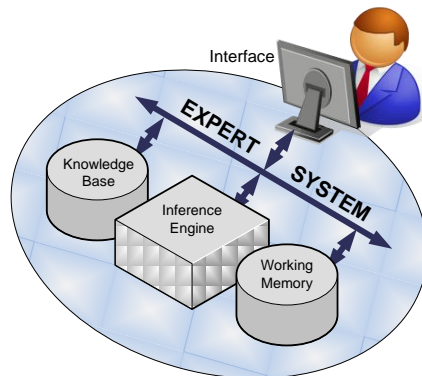
LARG project
Task: Human developments for LARGeSCM manufacturing (MIT-Pt / EDAM-IASC / 0033 / 2008 -2013)
The objective of this task is to develop an Expert System model driven by ergonomic principles to assist the implementation of lean, agile, resilient and green manufacturing solutions. The human factors should be incorporated in the Supply Chain/Manufacturing design since an early stage in order to achieve an increase in safety and health of workers as well as productivity, quality and profitability of the company

Methodology

Expert systems are intelligent decision support tools, designed to replicate the human reasoning on a particular field of expertise. These systems are not meant to replace human decision-makers, but they can assist them by processing large amounts of data, by exploring complex relations, by providing analysis results, by offering recommendations and by giving explanations about the rational that determined a specific output.
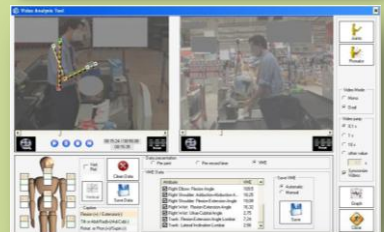

Expected Results

RA_X project
Development and validation of the Risk Analysis Fuzzy Expert System

LARG project
Development and validation of the Expert System model to assist the implementation of Human Centered LARG paradigms