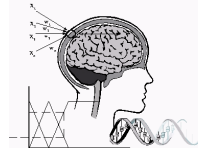




International

Innovation in Knowledge Based and Intelligent
Engineering Systems



INVITED SESSION SUMMARY

Title of Session:

Sustainable and Efficient Products and Processes

Name, Title and Affiliation of Chair:

Ana Rita Campos, UNINOVA, Portugal
Sebastian Scholze, ATB-Bremen, Germany

Details of Session (including aim and scope):

Within the current economic context, companies seek to reduce production costs. In order to maintain quality, companies need to gather knowledge and understand the full context of each production step, be able to analyse all costs involved, allowing cutting only superfluous costs. Energy represents a significant share of production costs for all companies.

The European projects **LifeSaver**, *Context sensitive monitoring of energy consumption to support energy savings and emissions trading in industry*, and **EPES**, *Eco Process Engineering System for composition of services to optimize product life cycle*, are developing work to support companies in having sustainable and efficient products and processes.

LifeSaver supports the analysis and decision making processes in industry to achieve additional gains by reducing energy consumption and related emissions. The project analyses the context of production processes, detecting and predicting events, through energy models, that could lead to abnormal energy consumption.

EPES is developing a set of tools to enable manufacturing companies to enter into a continuous process of upgrading their products along their life cycle, improving the performance of products in operation taking into account different knowledge based aspects as reliability, availability, maintainability, costs, productivity, quality, energy efficiency, etc.

This invited session will present results from these two European projects. In addition, we welcome papers in relevant topics that could foster a valuable exchange of ideas. Relevant topics relate to:

- Energy models in manufacturing companies
- Decision support systems for energy efficiency
- Life cycle assessment
- Context extraction in industrial environments

Main Contributing Researchers / Research Centres (tentative, if known at this stage):**Website URL of Call for Papers (if any):**

Submission of papers: 17 January 2014
Notification of Acceptance: 7 February 2014
Receipt of publication files: 26 February 2014

Inclusion of Papers in the Proceedings

Every paper must have at least one author who has registered for the conference with payment by the Early Registration Deadline for the paper to appear in the proceedings.

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