



**Job opportunity: Industrial PhD position available at the Technical University of Valencia (Spain) in collaboration with Shell Global Solutions International B.V. (The Netherlands).**

This project is the result of cooperation between the Multivariate Statistical Engineering Research Group (GIEM, <http://mseg.webs.upv.es>) at the Technical University of Valencia (Spain) and Shell Global Solutions International B.V. (The Netherlands).

We offer one PhD position for four years.

This PhD project deals with research into advanced multivariate methods for the analysis and monitoring of chemical processes, with special focus on real-time technologies, dynamics, diagnostics and interpretation. Specific fields of interest include:

- Real-time data pre-processing
- Real-time models, including appropriate statistical monitoring limits
- Monitoring approaches for situations when limited training set data is available
- Translation of out-of-control signals to operator actions
- Transfer of monitoring models between manufacturing units
- A rational approach for selecting the level of information required for process monitoring at the required level of confidence.

The main benefits of the technologies developed in this project will be increased process understanding and improved process operation, which will lead to:

- Increased plant utilization (cycle time reduction, production loss reduction)
- Improved HSE (Health, Safety and Environment) performance
- More consistent product quality
- Increased reliability
- Reduced cost (e.g. by reduced energy consumption, reduced storage)

The candidate is expected to interact in a multidisciplinary team, comprising the GIEM group (multivariate statistical engineering) and Shell Global Solutions International B.V. (process chemometrics & analytical chemistry). The candidate will be anchored at the GIEM group (Valencia, Spain) with Alberto Ferrer as supervisor and Onno de Noord as co-supervisor from Shell Global Solutions International B.V. (Amsterdam, The Netherlands). The candidate is expected to use advanced multivariate statistical methods to develop methods and algorithms for the project. The ideal candidate should have a degree in engineering, statistics, chemistry, computer science, mathematics, physics or equivalent discipline with good academic grades and have some proficiency in programming languages (e.g. Matlab).



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DE VALÈNCIA



How to apply:

Please send the letter in English language, including a personal motivation, academic grades and your curriculum vitae, to Alberto Ferrer (aferrer@eio.upv.es). Revision of candidates will start by January 16, 2012 and will continue until the position is fulfilled.