



The Royal Academy of Engineering

# Global Research Awards



## Detection and Diagnosis of Distributed Disturbances

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#### Themes:

- Research in process disturbance analysis and diagnosis;
- Learning about the business drivers of the offshore oil and gas industry and other areas of industrial automation.

#### Outcomes:

- Plant Disturbance Analyzer product (PDA) released December 2005.
- North Sea case study completed;



Photo from [www.abb.no](http://www.abb.no)

- Prototype whole-plant analyzer in Windows .Net links PDA with a process diagram.

#### Enhanced analysis.

Finds physical and control paths;  
 Finds the most upstream location in a disturbed path;  
 Finds a proxy measurement when a wanted measurement is not present;  
*A team collaboration by UCL students and researchers from ABB and UCL.*

