

## Belkacem OULD BOUAMAMA

Engineer, Ph.D, Full Professor and Head of the Research

Graduate Engineering School named *Polytech Lille*, France.

Leader of research group “*MOCIS*” LAGIS UMRCNRS9189



### Personal Information

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- Citizenship : French, Algerian
- Written/spoken language: Russian, English, Arabic, French.

### Education

- **1982 : MS in Engineering**, Algerian Institute of the Hydrocarbons and Chemistry (AIHC)..
- **1987 : Ph.D** Automatic Control : Russian State Oil & Gas University named after I.M. Goubkin.
- **2003** : Higher Degree by Research (Authorization to manage research) , Lille University France.

### Professional Positions

- 1988-1994 : **Lecturer** and Head of Department (AIHC), Algeria.
- 1994-2004 : **Associate Professor**, Lille1 University France.
- 2004 : **Full Professor** (J.O. 71 du 24/03/2004), Polytech'Lille
- 2008-présent : **Head of the Research** at Polytech'Lille , France
- 2010-présent : **Head of Research Group** MOCIS CRISAL Laboratory UMRCNRS 9189

### Research and Teaching Interest

- Fundamental research topics
  - Integrated Design of Supervision System using Bond Graph Theory
  - Bond Graph Dynamic Modelling and Simulation of mechatronics system
  - Prognostic and Health Management (PHM)
- Applied Research
  - Application to nuclear plants, Clean energy and Fuel Cells, Petrochemical processes and transport
  - Software design (a flexible software namely “FDIPad” to generate dynamic model and diagnostic algorithms for optimal sensor placement).
- Teaching Interest
  - Bond graph for Mechatronics, Diagnosis, Multivariable Control, Identification, Advanced control

### PUBLICATIONS, Ph.D supervision, and Project

- Publications
  - Author and Co--author of **3** books and **15** chapters in book in bond graph modeling for mechatronics and Fault Detection and Isolation area. (Springer Verlag, Hermes), **41** peer reviewed journals, **6** plenary conferences, **90** papers in international conferences
- Ph.D Supervision
  - **24** Ph.D thesis (**19** already defended)
- Expertise and European Project
  - 2009-2014 :Intelligent Transportation for Dynamic Environment –INTRADE
  - 2010-2015: *Weastflows* project: Design of an automatic and intelligent traffic time-domain for autonomous and human driven-vehicles within the terminals.
  - *2007 Diagnostic of industrial PEMFC fuel cell* (Industrial project with Automobile company PSA)
  - *1996 Modelling and dependability of nuclear power plants* (real applications with Electricité De France-EDF, Centre de l’Energie Atomique-CEA, .)
  - 2001-2005 : *Design of a flexible and integrated software to improve the safety of Chemical Processes* ( application to energetic processes as part of European project CHEM N° G1RD-CT-2001-00466)
  - *Software design (a flexible software namely “FDIPad” to generate dynamic model and diagnostic algorithms for optimal sensor placement).*
  - 2011-2015 : ANR Project prognosis of PEMFuel Cell
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