

Summer School

Diagnostics and Prognostics of Fuel Cell Systems

01-04 July 2014, FCLAB, Belfort, France

Day 1: Introduction to Fuel Cell Technology	
9h00-10h00	Welcome and opening of the summer school
10h00-12h30	Hydrogen vector and Fuel Cell technology
Lunch	
14h00-16h00	Degradation mechanisms and characterization of Fuel Cell systems
16h30-17h30	Visit of FCLAB facilities
Day 2: Diagnostics and prognostics – backgrounds	
9h00-10h30	Prognostics and Health Management – an overview
11h00-12h30	Diagnostics of Fuel Cell – concepts and approaches
Lunch	
14h00-15h30	Prognostics of Fuel Cell – concepts and approaches
16h00-17h30	To be confirmed : 2 options - PHM-based decision making for Fuel Cell – drawing some trends - Feedback from IEEE 2014 PHM Challenge on PHM of FCS
Day 3: Socio-economic and industrial perspectives	
9h00-10h00	Diffusion process – social and economics bottlenecks
10h30-11h30	Lessons learned from industry
11h30-12h30	Round table : industrial dissemination
Lunch	
Social event and Gala diner	
Day 4: Case studies and demonstrations	
9h30-12h00	Choice of two workshops ; limited places - Monitoring and characterization of fuel cells - Signal-based and data-based diagnostics of fuel cells - Model-based diagnostics of fuel cells - Data-based prognostics of fuel cells - Model based and hybrid prognostics of fuel cells
Lunch	
13h30-16h00	Same as in the morning
16h30	Closing session