

 <p>Réseau Eco SD Eco-conception de systèmes durables</p>	<p>Advanced LCA Methodologies and Tools : Uncertainties & Variability</p>	 <p>MINES ParisTech</p>	 <p>UNIVERSITÉ DE NANTES Chaire éco-construction</p>
<p>Organizers (names & email)</p>	<p>Prof. Dr. Isabelle Blanc (isabelle.blanc@mines-paristech.fr) Dr. Anne Ventura (anne.ventura@univ-nantes.fr)</p>		
<p>Dates</p>	<p>January 26th – January 30th 2015 : week 5</p>		
<p>Location</p>	<p>MINES ParisTech - Sophia Antipolis (06)</p>		
<p>Keywords</p>	<p>LCA – Uncertainties – Variability – Global Sensitivity Analysis – Energy pathways - Prospective</p>		
<p>Nb of hours/ECTS</p>	<p>11 x 1h30 courses + 7x1h30 case study + 8h personal homework</p>		
<p>Pre-requisite</p>	<p>LCA methodology : basics and practice of an LCA software // Basics in Statistics // English</p>		
<p>Description</p>	<p>This PhD class is orientated along a major key issue for Life Cycle Assessment :</p> <p style="text-align: center;">Understanding and handling uncertainties in LCA</p> <ul style="list-style-type: none"> • Uncertainties / Variability • Sensitivity Analyses, a review of statistical tools • Spatial uncertainties • Impact characterization uncertainty modelling • Meta-Analysis / Meta models applied to LCA • Parameterized models and reduced parameterized models applying Global Sensitivity Analysis (GSA) for energy pathways • Prospective uncertainties <p>Applications and illustrations mainly cover energy pathways.</p> <p>4 sessions of 2h are scheduled for personal projects using R statistical tool.</p>		
<p>This course is taught in English and is part of the Engineering Profession Sciences Doctorate School from MINES ParisTech and Arts & Métiers ParisTech.</p>			

CDE n°1	8h30-10h00	10h30-12h00	13h30-15h00	15h30-17h	Personal Homework 17h-19h
Day 1	Introduction to uncertainties / Variability related to LCA Isabelle BLANC - MINES Paristech	Uncertainties in LCA & Presentation of the Case study on Energy Pathway (EP) Camille MARINI/ Isabelle BLANC - MINES Paristech	Assessing spatial variability in LCA: why Lynda AISSANI - IRSTEA	Assessing spatial variability in LCA: how Lynda AISSANI - IRSTEA	Case study (EP)
Day 2	Sensitivity Analyses : a review of statistical tools Robin GIRARD - MINES Paristech	Case study on Sensitivity Analysis Camille MARINI – Robin GIRARD – MINES ParisTech	Understanding sources of uncertainties in impact characterization methods (1) Anne VENTURA - Chaire Eco-construction / Université de Nantes	Understanding sources of uncertainties in impact characterization methods (2) Anne VENTURA - Chaire Eco-construction / Université de Nantes	Case study (EP)
Day 3	Meta-Analysis / Meta-Models Camille MARINI -MINES Paristech	Parameterized models & Reduced parameterized models based on GSA (Global Sensitivity Analysis) Isabelle BLANC -MINES Paristech	Case study (EP)	Case study (EP)	Case study (EP)
Day 4	Prospective uncertainties for energy pathways LCA Camille MARINI -MINES Paristech	Case study (EP)	Case study (EP)	Case study (EP)	Case study (EP)
Day 5	Case study finalization (EP)	Case study finalization (EP)	Presentation of the case study (EP) by groups & Discussion	----	----