

 <p>Réseau Eco SD Eco-conception de systèmes durables</p>	<p><b>Advanced LCA Methodologies and Tools : Uncertainties &amp; Variability</b></p>	 <p>MINES ParisTech</p>	 <p>UNIVERSITÉ DE NANTES Chaire éco-construction</p>
<p>Organizers (names &amp; email)</p>	<p><b>Prof. Dr. Isabelle Blanc (isabelle.blanc@mines-paristech.fr)</b> <b>Dr. Anne Ventura (anne.ventura@univ-nantes.fr)</b></p>		
<p>Dates</p>	<p><b>April 18<sup>th</sup>- April 22<sup>nd</sup> 2016 : week 5</b></p>		
<p>Location</p>	<p><b>MINES ParisTech - Sophia Antipolis (06)</b></p>		
<p>Keywords</p>	<p><b>LCA – Uncertainties – Variability – Global Sensitivity Analysis – Energy pathways - Prospective</b></p>		
<p>Nb of hours/ECTS</p>	<p><b>11 x 1h30 courses + 7x1h30 case study + 8h personal homework</b></p>		
<p>Pre-requisite</p>	<p><b>LCA methodology : basics and practice of an LCA software // Basics in Statistics // English</b></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;"><b>Understanding and handling uncertainties in LCA</b></p> <ul style="list-style-type: none"> <li>• Uncertainties / Variability</li> <li>• Sensitivity Analyses, a review of statistical tools</li> <li>• Spatial uncertainties</li> <li>• Impact characterization uncertainty modelling</li> <li>• Meta-Analysis / Meta models applied to LCA</li> <li>• Parameterized models and reduced parameterized models applying Global Sensitivity Analysis (GSA) for energy pathways</li> <li>• Prospective uncertainties</li> </ul> <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 <a href="#"><u>Engineering Profession Sciences Doctorate School</u></a> from MINES ParisTech and Arts &amp; Métiers ParisTech.</p>			

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