



**4<sup>th</sup> WORKSHOP ON ENVIRONMENTAL ENGINEERING**  
**Environmental Engineering Program (PEA)**  
**POLI/EQ/UFRJ**  
**June 11 - 15, 2018**  
**SUSTAINABLE TECHNOLOGICAL INNOVATIONS**

**June 11 - 13 – SHORT COURSES**

LOCAL: UFRJ – Centro Tecnológico – Bloco D – sala 220 (Auditório André Rebouças)

	<b>11/06/2018</b> <b>Subject: Technological Innovation on Waste Management</b>	<b>12/06/2018</b> <b>Subject: Life Cycle Assessment</b>	<b>13/06/2018</b> <b>Subject: Technological Innovation and environment</b>
Morning (9-12h)	<b>Urban Mining</b> <b><u>Lucia Helena Xavier and</u></b> <b><u>Francisco Mariano Lima</u></b> Centro de Tecnologia Mineral (CETEM) - Brasil	<b>Life cycle assessment: methodological aspects and case studies</b> <b><u>Loles Bovea</u></b> Universitat Jaume I – Espanha	<b>Impact of global change on primary production</b> <b><u>Mario Giordano</u></b> Universit� Politecnica delle Marche – Italy
Afternoon (13-16h)	<b>Urban Mining</b> <b><u>Lucia Helena Xavier and</u></b> <b><u>Carlos Peiter</u></b> Centro de Tecnologia Mineral (CETEM) - Brasil	<b>Life cycle assessment: methodological aspects and case studies</b> <b><u>Irma Teresa Mercante</u></b> Facultad de Ingenier�a. Universidad Nacional de Cuyo – Argentina	<b>Climate change and energy transition</b> <b><u>Neven Duic</u></b> University of Zagreb – Croatia



## June 14 - 15 – LECTURES

LOCAL: UFRJ – Centro Tecnológico – Bloco D – sala 220 (Auditório André Rebouças)

14/06/2018		15/06/2018	
Subject: Technological Innovation in Environment		Subject: Technological Innovation on residues	
08:15h	Opening session		
08:30-09:30h	<p><i>Producing algal biomass of controlled quality requires a deep understanding of basic metabolism</i></p> <p style="text-align: center;"><b><u>Mario Giordano</u></b> Universit� Politecnica delle Marche (Italy)</p>	08:30-9:30h	<p><i>The role of carbon capture and utilization in smart energy systems</i></p> <p style="text-align: center;"><b><u>Neven Duic</u></b> University of Zagreb (Croatia)</p>
09:30- 10:00h	<p>Development and analysis of technological alternatives for carbon reduction in thermal power generation and CO<sub>2</sub>-rich natural gas purification</p> <p style="text-align: center;"><b><u>George Victor Brigag�o</u></b> PEA/UFRJ</p>	09:30-10:00h	<p>A study of the risks existent in silos and the investigative methodology of their accidents</p> <p style="text-align: center;"><b><u>Ana Carolina Souza Rosa</u></b> PEA/UFRJ</p>
10:00-10:15h	Coffee Break	10:00-10:15h	Coffee Break
10:15-10:45h	<p style="text-align: center;">RED DE INGENIER�A EN SANEAMIENTO AMBIENTAL REDISA</p> <p style="text-align: center;"><b><u>Maria Cristina Moreira, Loles Bovea, Irma Mercante</u></b></p>		
10:45-11:30h	<p>Household waste electrical and electronic equipment: characterization, consumer habits and end-of-life scenarios</p> <p style="text-align: center;"><b><u>Loles Bovea</u></b> Universitat Jaume I – Espanha</p>	10:15-11:15	<p style="text-align: center;">E-waste urban mining</p> <p style="text-align: center;"><b><u>Lucia Helena Xavier</u></b> Centro de Tecnologia Mineral (CETEM) - Brasil</p>
11:30-13:00h	Lunch	11:15-13:00h	Lunch
13:00-13:30h	<p>LCA methodology and optimization of energy output of PV modules in a complete BIPV system towards nZEB via experimental design</p> <p style="text-align: center;"><b><u>Mohammad K. Najjar</u></b> PEA/UFRJ</p>	13:00-13:30h	<p>Oral presentation PEA/UFRJ Student</p>
13:30-14:15h	<p>Recycling of waste materials in concrete building elements</p> <p style="text-align: center;"><b><u>Irma Teresa Mercante</u></b> Facultad de Ingenier�a. Universidade Nacional de Cuyo – Argentina</p>	13:30-14:30h	<p><i>Towards Sustainable Development Measurement: Life Cycle Assessment</i></p> <p style="text-align: center;"><b><u>Cassia Maria Lie Ugaya</u></b> Universidade Tecnol�gica Federal do Paran� (UTFPR) - Brasil</p>
14:15-14:45h	<p>CO<sub>2</sub> management: a comparative sustainability analysis</p> <p style="text-align: center;"><b><u>Igor Lapenda Wiesberg</u></b> PEA/UFRJ</p>	14:30-15:00h	<p>Greenhouse gas emissions related to biodiesel from traditional soybean farming compared to integrated crop-livestock systems</p> <p style="text-align: center;"><b><u>Elisa Maria Mano Esteves</u></b> PEA/UFRJ</p>
14:45-15:00h	Coffee Break	15:00-15:15h	Coffee Break
15:00 – 16:30h	Poster presentation PEA/UFRJ Students	15:00 – 16:30h	Poster presentation PEA/UFRJ Students
16:30-18:00h	REDISA MEETING		



**ORGANIZING COMMITTEE:**

ANA LUCIA NAZARETH DA SILVA  
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ELEN BEATRIZ ACORDI VASQUES PACHECO  
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LIDIA YOKOYAMA  
MAGALI CHRISTE CAMMAROTA  
OFELIA DE QUEIROZ FERNANDES ARAUJO  
SELMA GOMES FERREIRA LEITE

**SCIENTIFIC COMMITTEE**

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