Personal details

Surname: Rigamonti *Name:* Lucia *Gender:* female

Date of birth: 13 March 1979

Organization and Position: Politecnico di Milano, Associate professor

Education and training: Lucia Rigamonti is an environmental engineer graduated at Politecnico di Milano in 2003 cum laude (title of the thesis: Environmental assessment of energy recovery from waste). She accomplished in 2007 a PhD in Sanitary-Environmental Engineering with a thesis on the topic of Life Cycle Assessment (LCA) applied to different integrated municipal solid waste management systems. During the PhD she had been visiting the Columbia University (New York) in the Henry Krumb School of Mines.

Professional Summary

Professional experience

She is an associate professor at the Department of Civil and Environmental Engineering (DICA) of Politecnico di Milano. Her research activity is mainly about the analysis by applying the life cycle thinking approach of environmental remediation technologies (e.g. treatment of solid waste, contaminated soils, sludge), waste prevention activities, potentially sustainable consumption choices, management strategies and recovery of materials, resources and energy from civil and industrial residues, and complex systems such as those related to the capture and utilisation of CO2. She co-coordinates the research group AWARE (aware.polimi.it).
From 2007 to 2021 she was a researcher at DICA following different projects on the topic of environmental evaluation of material and energy recovery processes from waste. She won the UQ 2015 Travel Awards for International Collaborative Research and so from 20/9/2015 to 20/11/2015 she was a visiting academic at the University of Queensland (Brisbane - Australia) in the research group of prof. Halog (School of Geography, Planning and Environmental Management). In 2013 she spent three months at the research institute Scion (Rotorua, New Zealand) in the team Clean Technologies (supervisor Kim McGrouther; Project: Development of a decision-making framework to manage technology development programmes within the BioResource Processing Alliance – BPA).
She was member of the Technical Secretariat for the development of the Product Environmental Footprint Category Rules (PEFCR) for intermediate paper products in the context of the European Commission project "Environmental Footprint Pilot Phase". She founded the working group DIRE (Development and Improvement of LCA methodology: Research and Exchange of Experiences), inside the Italian Network on LCA, and she coordinates the working group Management and treatment of waste of the same network. She is member of the management board of the Italian Network on LCA and also member of the scientific board of the Research Centre MatER (Material & Energy from Refuse); she is member of the “International Expert Group for life cycle assessment for integrated waste management”, of working group 1 “Resource potential of construction & demolition waste” inside the COST Action “Mining the European Anthroposphere”, of the working group “Circular Economy” coordinated by ASTER, of the working group n. 3 “Tools to measure the circular economy” inside ICESP (Italian Circular Economy Stakeholder Platform), of the working group n. 5 “Legislative issues” inside SUN (Symbiosis Users Network), and of the working groups "Construction and demolition waste” and “Plastics” inside the Observatory for the circular economy and the energy transition by Regione Lombardia.

She has been professor for the university courses Sanitary - environmental engineering since the academic year 2012-1013 and Methodologies for Life Cycle Thinking since the academic year 2021-2022 (Politecnico di Milano). She has given invited lectures about LCA and waste management for the following university courses: Waste Management, University College Dublin, Dublino, February 2014; Bio-Energy and Waste-To-Energy technologies, Politecnico di Milano, since the academic year 2011-2012; Management and treatment of solid waste, Politecnico di Milano, since the academic year 2011-2012. She gave the two-weeks course "The Life Cycle Assessment methodology" at the Department of Civil Engineering of the National Institute of Technology di Warangal (India), (February 2017) inside the Technical Education Quality Improvement Programme-II.
Supervisor and co-supervisor of more than 45 bachelor and master degree theses mainly on the subject of waste management and life cycle assessment. Supervisor of 2 PhD theses.
Organisation and scientific supervisor of scientific events: MatER conferences on waste treatment and technologies; workshops "Waste and Life Cycle Thinking", Politecnico di Milano; national workshop "Carbon Capture and Utilization for CO2 emissions reductions", Politecnico di Milano, 2018; national conference "Resources from waste: innovative solutions and environmental consequences of the implementation of the circular economy", inside Ecomondo 2017; international session "Materials from the recycling of packaging waste: quality and market" inside the 3rd Symposium on urban mining and circular economy, Bergamo, 2016; international conference "What is sustainable technology? The role of life cycle-based methods in addressing the challenges of sustainability assessment of technologies", with working group DIRE, Roma, 2012; national conference "sustainability assessments of technologies: which role for LCA?", with working group DIRE, Rimini (Italy), 2010.

International projects responsibility

- Task leader (WP 6.2: LCA) in the project "FReSMe - From residual steel gases to methanol" (Horizon 2020, LCE-25-2016), grant number 727504
- Scientific leader of WP7 "Sustainability assessment of the FineFuture Technologies" in the H2020 project "FineFuture - Innovative technologies and concepts for fine particle flotation: unlocking future fine-grained deposits and Critical Raw Materials resources for the EU" (2019-2022), grant number 821265
- Scientific leader of the Environmental Assessment in the project "Greenrail, innovative and sustainable railway sleepers: the greener solution for railway sector - Horizon 2020 Call: H2020-SMEInst-2016-2017, Type of action: SME-2"

National projects responsibility

She has been the project leader of many research projects stipulated between Politecnico di Milano and various organizations. The most recent ones are: Supporting activities to the Regulatory Authority for Energy, Networks and the Environment, aimed at regulating gate fees for municipal waste treatment plants – ARERA; Evaluation of the environmental impacts of the life cycle of LPG for uses as a fuel, in comparison with other types of energy sources / carriers - Federchimica – Assogasliquidi; LCA of glass packaging and comparison with other packaging materials – Assovetro; Supporting activities for updating the contents of the regional waste management program – Regione Lombardia; Assessment of the environmental impacts of the life cycle of different types of fuels – Liquigas S.p.A.; Supporting activities for the "Innovation of circular economy supply chains in Lombardy" call - Unioncamere Lombardia; Recovery of aluminium from incineration bottom ashes – CiAl; LCA of contaminated site remediation alternatives - Syndial Servizi Ambientali SpA; Development of an indicator to measure the packaging circularity – CONAI; LCA of the reuse of some types of packaging in Italy – CONAI; LCA for maintaining the

environmental product declaration (EPD®) of some cartonboards produced in Santa Giustina plant – Reno de Medici; LCA of the incineration of sewage sludge – A2A Ambiente S.p.A.; LCA of the recovery of the white slag produced in steel plants – Unicalce; LCA to support the revamping of Acqua dei Corsari waste water treatment plant – Suez Trattamento Acque S.p.A.; LCA applied to evaluate an integrated system to manage sewage sludge, the organic fraction from municipal waste, and the residual municipal waste - Cap Holding Spa; Life Cycle Costing of energy production from the residual waste based on mechanical biological pretreatment - Ricerca sul Sistema Energetico; LCA to evaluate the recovery of the organic fraction from municipal waste – COREPLA; LCA of the construction and demolition waste management system implemented in Lombardy Region - Regione Lombardia; Environmental and economic evaluation of potentially sustainable consumption choices – Fondazione Footprint; Cost-Benefit Analysis of the recycling of packaging waste (in collaboration with Istituto Superior Tecnico of Lisboa) - European Investment Bank.

Competitive projects: Task leader (task 5: LCA) in the project "Integration of microalgal based processes in wastewater treatment (IMAP)" (Fondazione Cariplo 2015)

Prizes

- First prize in the competition Best thesis 2008 organized by ORSA (Scuola di Alta Formazione Ambientale in Palermo) for the PhD thesis
- Winner of the Young Researcher Award LCA 2009 from the LCA Italian network
- Nomination as "Top reviewer of 2011" by Waste Management journal
- Winner in 2015 of the University of Queensland Travel Award for International Collaborative Research
- Winner in 2016 of an Erasmus + grant for Staff mobility for teaching (hosting university: Vienna University of Technology)
- "Excellence in Review Award 2016" by Resources, Conservation & Recycling journal
- Winner in 2018 of an Erasmus + grant for Staff mobility for teaching (hosting university: Ghent University)

Total number of publications and h-index

Total number of publications: 228 (60 papers in ISI journals, 48 papers in other journals, 5 books, 18 chapters of books, 69 papers in international conferences proceedings, 28 papers in national conferences proceedings)
Scopus (Orcid: 0000-0001-5468-9577) (21 December 2021): 60 documents, h-index 24, citations 1893
Oral presentations at conferences: 57 at international conferences and 31 at national conferences