

MAURICIO URIONA MALDONADO

I study clean technologies driving the transition toward sustainable and low-carbon economies in Developing Countries from a socio-technical perspective. I am an expert in system dynamics modelling which I use to develop simulated scenarios of technology diffusion and sustainable transitions. I lead the Sustainable Energy Innovation Group (Sinergia) at UFSC. My research has been published in several journals and in specialized conferences across the world. I held visiting positions at Universidad Autonoma de Madrid (Spain), University of Tampere (Finland) and University of Bremen (Germany) and received training at the Massachusetts Institute of Technology (USA).

EDUCATION

- 2012
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2008
- **PhD. in Knowledge Management and Engineering**
Federal University of Santa Catarina 📍 Florianopolis, Brazil
 - PhD Dissertation: Sectoral Innovation Dynamics, Innovation Systems, System Dynamics, IT Sector
 - CAPES Fellow, PEC-PG. Supervised by Prof. G. Varvakis
 - Co-supervised by Prof. V. Kern (UFSC) and Prof. R. Pietrobon (Duke University)
- 2008
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2006
- **M.Sc. in Knowledge Management and Engineering**
Federal University of Santa Catarina 📍 Florianopolis, Brazil
 - Thesis: Business Process Management, System Dynamics, IT Sector
 - CNPq Fellow, PEC-PG. Supervised by Prof. G. Varvakis
- 2004
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2000
- **B.S. in Industrial Engineering**
Military School of Engineering (EMI) 📍 La Paz, Bolivia
 - Thesis: Strategic Planning, Service Industry

ACADEMIC EXPERIENCE

- Current
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2013
- **Associate Professor**
Federal University of Santa Catarina 📍 Florianopolis, Brazil
 - Department of Industrial and Systems Engineering
 - Courses taught in Undergraduate Level: Decision Analysis, IT Management/Data Science, Microeconomics, Ethics in Business
 - Courses taught in Graduate level: System Dynamics Simulation, Innovation and Industrial Economics, Renewable Energy Economics
- 2025
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2022
- **Associate Professor Extraordinary**
Stellenbosch University 📍 Stellenbosch, South Africa
 - Department of Industrial Engineering
 - Invited Position
- 2013
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2009
- **Research Associate**
Duke University 📍 Durham, NC, US
 - Research on Research Group
 - Under the lead of Dr. Ricardo Pietrobon
 - Conducted research on system dynamics and Science and Technology Policy

📄 Download a PDF of this CV

CONTACT

Born and raised in La Paz,
Bolivia 🇧🇴

Lives in Florianopolis, Brazil 🇧🇷

Age: 41 years old

✉ m.uriona@ufsc.br

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LANGUAGE SKILLS

English	
Portuguese	
Spanish (Native)	
French	

SPECIFIC SKILLS


System Dynamics	
Bibliometrics	
Data Visualization	
Data Analysis	
Machine Learning	

MODELLING SKILLS


📄 [Stella](#)
📄 [Vensim](#)
📄 [Anylogic](#)
📄 [R](#)
📄 [Python](#)

VISITING POSITIONS


- 2017
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2017

Visiting Professor
 University of Bremen  Bremen, Germany

 - Visiting Professor at the Bremen Institute for Production and Logistics
 - CAPES-DFG Fellow
- 2017
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2017

System Dynamics Training
 MIT  Boston, USA


 - MIT Sloan School of Management
 - Advanced Course in System Dynamics
- 2011
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2011

Visiting Researcher
 Autonomous University of Madrid  Madrid, Spain


 - Visiting Scholar at the Economics and Business Faculty
 - EU 7th Framework Programme - Marie Curie Actions

FUNDING AND GRANTS


- 2026
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2024

Scenarios for green hydrogen production in Brazil
 CNPq - Principal Investigator  Brazil


 - Project funded by CNPq (Brazilian science foundation) which aims at developing quantitative scenarios for the ramp up of green hydrogen production in Brazil for the coming decades, including economic, technological and social variables.
 - Project Partners: UFSC.
- 2024
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2023

Public policies and corporate responses to promote sustainable economic development at the green hydrogen HUB with an emphasis in Ceara State
 CNPq - Co-Investigator  Brazil

 - Project funded by CNPq (Brazilian science foundation) which aims at developing a qualitative understanding of the feasibility of green hydrogen production in the State of Ceara (the leading State in green hydrogen promotion policies) for the next decade.
 - Project Partners: UFSC and Federal University of Ceara.
- 2023
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2022

Decision Support Systems for long-term hydrogen scenarios
 DAAD and GIZ - Principal Investigator  Germany

 - Project funded by DAAD (German Academic Exchange Service) and GIZ (German Cooperation Agency) under the German-Brazilian Research Cooperation in the Energy sector – NoPa 2.0/ cooperation in the areas of green hydrogen/PtX, direct electrification and energy storage 2023.
 - Project Partners: UFSC, Fraunhofer Institute for Systems Innovation and Federal University of Ceara.
- 2023
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2021

New index for green technologies in Latin America
 Universidad Militar Nueva Granada - Co-Investigator  Colombia

 - Project funded by Universidad Militar Nueva Granada which aims at developing new performance indexes for green technologies in Latin America, specially with patents.
 - Project Partners: UFSC and Universidad Militar Nueva Granada (Colombia).


Industry Experience


Consultant in Innovation Management (FIESC) - 2012-2013


Business Analyst (Dinamica Software) - 2005-2008


Noteworthy International Collaborations


w/ Prof. Sara Grobbelaar (Stellenbosch Univ) 

w/ Prof. Rainer Walz (Fraunhofer ISI) 

w/ Prof. Milton Herrera (Univ Militar Nueva Granada) 

w/ Prof. Minelle Silva (La Rochele Business School) 

w/ Prof. Guillermo Davila (Univ de Lima) 

w/ Prof. Peter Wells (Cardiff Univ) 



SELECTED PUBLICATIONS

- 2023
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2023
- **Scaling actors' perspectives about innovation system functions: Diffusion of biogas in Brazil.**
Technological Forecasting and Social Change
• Authored with Borges CP; Silberg TR (USA); Vaz CR
- 2022
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2022
- **A multi-country simulation-based study for end-of-life solar PV panel destination estimations**
Sustainable Production and Consumption
• Authored with Marcuzzo, R; de Araujo WC; Vaz CR
- 2022
|
2022
- **The evolution, consolidation and future challenges of wind energy in Uruguay**
Energy Policy
• Authored with Correa, KC; Vaz CR
- 2021
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2021
- **A Systems Modeling approach to estimate biogas potential from biomass sources in Brazil**
Renewable And Sustainable Energy Reviews
• Authored with Borges CP; Sobczak JC; Silberg TR (USA); Vaz CR
- 2021
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2021
- **Modeling Smallholder Agricultural Systems to Manage Striga in the Semi-Arid Tropics**
Agricultural Systems
• Authored with Silberg TR; Renner K; Schmitt Olabisi L; Richardson RB; Chimonyo VGP; Basso BB; Mwale C from the USA
- 2020
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2020
- **The Influence of E-Carsharing Schemes on Electric Vehicle Adoption and Carbon Emissions: An Emerging Economy Study**
Transportation Research Part D: Transport and Environment
• Authored with Luna TF; Silva ME (France); Vaz CR
- 2019
|
2019
- **The Impact of CO2 Mitigation Policies on Light Vehicle Fleet in Brazil**
Energy Policy
• Authored with Benvenutti LM; Campos L
- 2019
|
2019
- **Product-Service Systems in Solar PV Deployment Programs: What can we learn from the California Solar Initiative?**
Resources, Conservation and Recycling
• Authored with Schmidt-Costa Jr; Possamai O
- 2018
|
2018
- **Diffusion of Photovoltaic Technology in Germany: A Sustainable Success or an illusion driven by guaranteed Feed-In Tariffs?**
Energy
• Authored with Baur L (Germany)

PUB RECORD

63 Journal Publications
5 Books
31 Book Chapters
162 Conference Papers

See full details at the Brazilian Lattes online cv Platform [here](#)