



Willian Nadaleti

Dr Nadaleti is an Adjunct Professor at the Engineering Center, Federal University of Pelotas – UFPel, Brazil since 2015. He received his PhD degree in Environmental Engineering from the Federal University of Santa Catarina – UFSC in 2017. Part of his doctoral research was developed under a European Union-funded program at the Autonomous University of Barcelona – UAB, Spain and at the Thermal Technology Institute, Silesian University of Technology – ITT/SUT, Poland. He subsequently completed his first Postdoctoral internship at ITT/SUT in 2018, working on Energy Engineering. Currently, he joined the Environmental and Sanitary Engineering Department of UFSC as a Postdoctoral researcher under a CNPq/Brazil financial support.

Main research areas: Environmental and Energy Engineering, mainly focused on biomass energy; energy generation; conversion and use of biogas/hydrogen; AcoD and AD processes; atmospheric emissions; energy planning and management.



Personal Data

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Languages

•English – B2/FCE



Education

- 2017** Federal University of Santa Catarina, Brazil
PhD in Environmental Engineering
Thesis Topic: Use of biogas, hydrogen and syngas in the public transport sector and rice agroindustrial: study of energy potential of waste and pollutant emissions
- 2014** Parana State University, Brazil
MSc in Energy Engineering
- 2014** Federal Technological University of Parana, Brazil
BSc in Physics
- 2012** Sao Paulo State University, Brazil
BSc in Environmental Engineering



University Professional Experience

2015-Now Adjunct Professor - Federal University of Pelotas, Brazil

• Fluid Mechanics • Atmospheric Emissions • Biomass | Waste-To-Energy



Recent Publications

Books:

1. Blendas de biodiesel: síntese, otimização e estabilidade termo-oxidativa. 1st Ed., São Paulo: All Print, **2015**.
2. Manual de Análises de Águas e Efluentes. 1st Ed., Pelotas: UFPel, **2018**.

Refereed Journals:

1. Utilization of residues from rice parboiling industries in southern Brazil for biogas and hydrogen-syngas generation: Heat, electricity and energy planning. **Renewable Energy**, v. 131, p. 55-72, **2019**.
2. Analysis of emissions and combustion of typical biofuels generated in the agroindustry sector of Rio Grande do Sul State - Brazil: Bio75, syngas and blends. **Journal of Cleaner Production**, 208: 988-989, **2019**.
3. Potential use of methane and syngas from residues generated in rice industries of Pelotas, Rio Grande do Sul: thermal and electrical energy. **Renewable Energy**, 134: 1003-1016, **2019**.
4. Emissions and performance of a spark-ignition gas engine generator operating with hydrogen-rich syngas, methane and biogas blends for application in southern Brazilian industries. **Energy**, 154: 38-51, **2018**.
5. Efficiency and pollutant emissions of an SI engine using biogas-hydrogen fuel blends: BIO60, BIO95, H2OBIO60 and H2OBIO95. **International Journal of Hydrogen Energy**, 43: 7190-7200, **2018**.
6. SI engine assessment using biogas, natural gas and syngas with different content of hydrogen for application in Brazilian rice industries: Efficiency and pollutant emissions. **International Journal of Hydrogen Energy**, 43: 10141-10154, **2018**.
7. Performance and effect of water-cooling on a microgeneration system of photovoltaic solar energy in Paraná, Brazil. **Journal of Cleaner Production**, 192: 477-485, **2018**.
8. Physicochemical properties of ethanol with the addition of biodiesel for use in Otto cycle internal combustion engines: Results and revision. **Renewable & Sustainable Energy Reviews**, 74: 1181-1188, **2017**.
9. Methane-hydrogen fuel blends for SI engines in Brazilian public transport: Potential supply and environmental issues. **International Journal of Hydrogen Energy**, 42: 12615-12628, **2017**.