



Juan Camilo ACOSTA-PAVAS

Research Engineer - Postdoctorant

Project: BioIndustry 4.0

Supervisor(s): César Arturo ACEVES LARA

Funding: **BioIndustry 4.0**

Key words: Optimization · Soft Sensor · Digital Twin

Background

Ph.D. in Process and Environmental Engineering from INSA Toulouse. Experience in modeling, simulation, and scale-up of bioprocess. Based on process phenomenology and the use of machine learning tools. Applications of control strategies for bioprocess optimization.

Currently working on

- ✓ Implementation of digital twins as part of the project BioIndustry 4.0
- ✓ Optimization strategies using dynamic hybrid models to enhance bioprocesses
- ✓ Construction of soft sensors to bioprocess monitoring

Scientific communications

- Acosta-Pavas, J. C.**, Corrales, D. C., Martínez-Menéndez, I., Villela, S. M. A., Bouhaouala-Zahar, B., Georgakilas, G. K., Mexis, K., Xenios, S., Dalamagas, T., Kokosis, A., O'donohue, M., Fillaudeau, L., & Aceves-Lara, C. A. (2025). A Soft Sensing Approach for Efficient Monitoring of Nanobody-Based Scorpion Antivenom Production. In R. Chinthajjala, P. Sitek, N. Min-Allah, K. Matsui, S. Ossowski, & S. Rodríguez (Éds.), Distributed Computing and Artificial Intelligence, 21st International Conference (Vol. 1259, p. 271-281). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-82073-1_27
- Acosta-Pavas, J. C.**, Robles-Rodriguez, C. E., Griol, D., Daboussi, F., Aceves-Lara, C. A., & Corrales, D. C. (2024). Soft sensors based on interpretable learners for industrial-scale fed-batch fermentation : Learning from simulations. Computers & Chemical Engineering, 108736. <https://doi.org/10.1016/j.compchemeng.2024.108736>
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Contact me

Juan Camilo ACOSTA-PAVAS [+ 33 6 52 68 53 38]

[\[LinkedIn\]](#) [\[Orcid\]](#) [\[HaL\]](#) [\[Researchgate\]](#)