

Juan Luis Barbería

EXPERIENCE

INDUCOR INGENIERÍA S.A. - HV FIELD TEST ENGINEER 2022 - ACTUAL JOB

Design of partial discharge measuring system.

Root cause of failures on electrical equipment for international companies.

UTN-FRBA - TEACHING ASSISTANT 2018 - ACTUAL JOB

Physics II (electromagnetism and thermodynamics).

EMPLEOTECNIA - INSTRUCTOR 2021 - 2022

Instructor of the *Introducción a la programación en Julia* course.

EDUCATION

UTN-FRBA - PHD. PROGRAM IN ENGINEERING 2021

- Status: In course
- Title of thesis: Relaxations and convex approximations to the optimal power flow problem.
- Relevant courses:
 - DataMining
 - Multivariate Analysis

UTN-FRBA - ELECTRICAL ENGINEERING 2016–2021

- Scholarship Fundación Williams and Navarro Viola (2019)
- Scholarship *Estimulo a Vocaciones Científicas* del Consejo Interuniversitario Nacional (2020)

SKILLS

- English Language (C1 - Advanced)
- Python (+3 years of experience)
- MS Office and Outlook (Advanced Level)
- Mathematical Programming & Discrete Optimization
- Julia (Programming Language) & JuMP
- Power BI

AWARDS

CASATALENTOS 2° EDITION, EMPLEOTECNIA - TERNIUM, 1° PLACE 2021

Technical-economic case study about the acquisition of arc-flash relays on MV switchgear.

37° CONGRESO AADECA, 2° PLACE 2020

Design of a fully automatized instrument (with a SCADA compatibility) for transformer testing.

RESEARCH PROJECTS

UTN-FRBA - ANÁLISIS DE SEÑALES BASADO EN HERRAMIENTAS ENTRÓPICAS EN LOS PLANOS INFORMACIONALES 2021 - 2022

Analysis of signals through an informational theory approach. Development of machine learning algorithms for classification of those signals.

- Proceedings of the VIII MACI Congress, MACI - 2021
- Workshop, Entropy - 2021 (Portugal)
- 106° Meeting of the Argentinian Association of Physics, RAFA - 2021
- Trends in Computer and Applied Mathematics

UTN-FRBA - DESARROLLO DE METODOLOGÍAS Y HERRAMIENTAS PARA EL DISEÑO Y LA EXPANSIÓN DEL SISTEMA DE TRANSMISIÓN 2019-2021

Development of open-source alternatives for power systems simulations and optimization.

- IEEE Chilecon 2021, presentation of the software TNEP.py
- Collaboration in PowerModels.jl, Pfnnet.py and Grg-pssedata
- Development of python packages for PSSE interoperability: PSSE34to33.py

PUBLICATIONS

- Barbería, J. L., Anello, M. T., & del Rosso, A. (2021, Diciembre). Computational Tool for Optimal Expansion of Transmission Networks. In 2021 IEEE CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies (CHILECON) (pp. 1-5). IEEE.
- Baldiviezo M, Barbería J, Bontempo C, Corsaro Y, Fernandez Biancardi F, Hernando M, Rodriguez M, Paglia A, Legnani W (2021, Mayo). Application of entropic measures in the study of auditory evoked potentials for the detection of pathological patients. Proceedings of VIII MACI 2021 (pp. 633-636). ASA-MACI.
- W. Legnani, M. Baldiviezo, C. Bontempo, Y. Corsaro, J. Fernandez Biancardi, A., M. Hernando, M. Rodriguez y J. Barberia (2021, Mayo). Evaluation of the performance of permutation entropy variants for classifying auditory evoked potentials. Entropy 2021 - The Scientific Tool of the 21th Century (Presentación de poster).
- Baldiviezo M., Barberia J., Bontempo C., Corsaro Y., Fernandez Biancardi F., Hernando R., Licata Caruso L., Rodriguez M., Paglia A., Legnani W. (2021, Octubre). Aplicación de clasificadores en la detección de patologías en señales electrofisiológicas de potenciales evocados. 106° Reunión anual de física 2021. RAFA