

Education:

- Ph.D. in Electrical Engineering, University of Bologna (ITALY)** 2021-2024/12
Thesis: Renewable energy communities and storage systems: local ancillary services by renewable energy communities'
- M.Sc. in Electrical and Electronics Engineering, Gazi University(Turkey)** 2016-2019
Thesis: Optimal Placement of Electric Vehicle Charging Stations on a Distribution Network
- B.Sc. in Electrical Engineering, Islamic Azad university of Tabriz** 2011-2016
Thesis: Coordination of Wind Turbine Renewable Energy

Internship:

- INRETE Distribuzione Energia S.p.A. (DSO) 6-Months in Ph.D.

Experience:

Teaching and Research Assistance:

- University of Bologna** 2022-until now
Electric Power Systems
Electric Power Systems and Smart Grids
Power Plants and Distributed Generation
- Gazi University** 2017-2019
Electric Power Systems
Power System Modeling with Digsilent V15

R&D Engineer:

- Euro power Energy and Automation Technologies** 2021-2022
Algorithm and topology designer of electric vehicle chargers (Converters)

Scientific Researcher:

- Gazi University** 2017-2021
Load Estimation Use in Electric Vehicle Charge Station Coordination in Different Node and Definite Area

Research Interests:

Electricity Markets and Optimization, local ancillary services by renewable energy communities, Power System Analysis, Local Energy Community (LEC), Energy Policy Analysis, Mathematical Optimization Techniques (nonlinear/convex/linear/stochastic) in Power systems.

Software Skills:

Matlab, Python, GAMS, AIMMS (Optimization), Gurobi, Digsilent Power Factory, Typhoon HIL, PSCAD, Office and editing series, Orgin Pro, Ansys Magnetic, Autodesk Cad series.

Books:

Chapter 9:

Alberto Borghetti, Tohid Harighi, Carlo Alberto Nucci, Giorgio Graditi, Marialaura Di Somma, Martina Caliano "Integration of Multiple Energy Communities: Transaction Prices, Reactive Power Control, and Ancillary Services" waiting for publish in Wiley

Publication:

- [1] Tohid Harighi, Alberto Borghetti, Fabio Napolitano, Fabio Tossani, "Provision of reactive power services by energy communities in MV distribution networks", Sustainable Energy, Grids and Networks, Vol. 34, 2023, <https://doi.org/10.1016/j.segan.2023.101038>

- [2] T. Harighi, A. Borghetti, F. Napolitano, F. Tossani, " Flexibility Modeling for Parking Lots with Multiple EV Charging Stations" IEEE international conference on Power Systems Computation Conference PSCC 2024 (Accepted)
- [3] T. Harighi, A. Borghetti, S. Lilla, C. A. Nucci, A. Calzolari, M. Salicini, C. Cercolani "Quantifying Maximum Limits for Reactive Power Flexibility Provision in Energy Communities: A Case Study of A Real Distribution Power Network" International Conference of CIGRE 2024 (Accepted)
- [4] Harighi T.; Borghetti A.; Napolitano F.; Tossani F., Optimization Model for the Analysis of Multiple Energy Communities in the Same Distribution Network with Different Providers, in: 2023 IEEE Belgrade PowerTech, PowerTech 2023, 345 E 47TH ST, NEW YORK, NY 10017 USA, Institute of Electrical and Electronics Engineers Inc., 2023, pp. 1 - 6 (atti di: 2023 IEEE Belgrade PowerTech, PowerTech 2023, Belgrade, Serbia, 2023)
- [5] M. De Santis, A. R. Di Fazio, M. Russo, T. Harighi and A. Borghetti, "Voltage Optimization in Distribution Networks using EV Parking Lots and PV systems as flexibility options," 2023 IEEE International Conference on Environment and Electrical Engineering and 2023 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Madrid, Spain, 2023, pp. 1-6, doi: 10.1109/EEEIC/ICPSEurope57605.2023.10194708.
- [6] T. Harighi, A. Borghetti, M. De Santis, A. R. Di Fazio and M. Russo, "Flexible Operation of an EV Parking Lot for Voltage Control of a Distribution Network," 2023 International Conference on Smart Energy Systems and Technologies (SEST), Mugla, Turkiye, 2023, pp. 1-6, doi: 10.1109/SEST57387.2023.10257434.
- [7] T. Harighi, R. Bayindir, U. Gokmen, L. E. Jamal Golzari and A. Khanlari, "Changing Power Transformer Metallurgy to Increase Responsibility of Electric Vehicle Fast Charge Profile," 2020 9th International Conference on Renewable Energy Research and Application (ICRERA), Glasgow, UK, 2020, pp. 483-488, doi: 10.1109/ICRERA49962.2020.9242733.
- [8] Harighi, T.; Padmanaban, S.; Bayindir, R.; Hossain, E.; Holm-Nielsen, J.B. Electric Vehicle Charge Stations Location Analysis and Determination—Ankara (Turkey) Case Study. *Energies* 2019, 12, 3472. <https://doi.org/10.3390/en12183472>
- [9] T. Harighi and R. Bayindir, "Load Estimation Use in Electric Vehicle Charge Station Coordination in Different Node and Definite Area," 2018 International Conference on Smart Grid (icSmartGrid), Nagasaki, Japan, 2018, pp. 264-271, doi: 10.1109/ISGWCP.2018.8634506.
- [10] Harighi, T.; Bayindir, R.; Padmanaban, S.; Mihet-Popa, L.; Hossain, E. An Overview of Energy Scenarios, Storage Systems and the Infrastructure for Vehicle-to-Grid Technology. *Energies* 2018, 11, 2174. <https://doi.org/10.3390/en11082174>
- [11] T. Harighi, R. Bayindir and E. Hossain, "Overviewing Quality of Electric Vehicle Charging Stations' Service Evaluation" *International Journal of Smart Grids, ijSmartGrid*, vol. 2, pp. 40-48, 2017
- [12] T. Harighi, R. Bayindir and E. Hossain, "Overview of quality of service evaluation of a charging station for electric vehicle," 2017 IEEE 6th International Conference on Renewable Energy Research and Applications (ICRERA), San Diego, CA, USA, 2017, pp. 1180-1185, doi: 10.1109/ICRERA.2017.8191240.

Web Addresses:

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Google Scholar:

<https://scholar.google.com/citations?user=yIjAL1EAAAAJ&hl=en>

References:

Available upon request.