



**School of
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Winterthur, Switzerland, August 20, 2024

To Whom It May Concern,

This letter is to certify that the doctoral candidate **Gabriel Eduardo Mejia Ruiz**, completed a scientific research visit at the Electric Power Systems and Smart Grids Laboratory of Zurich University of Applied Sciences, from April 26 to October 29, 2022, respectively.

During this period, Mr Mejia Ruiz effectively utilized different real-time simulators such as OPAL-RT and Typhoon HIL to design and implement co-simulation frameworks for distribution and transmission power systems with a high penetration of distributed energy resources (DERs), focusing on the regulation of frequency and voltage.

The following publications were produced as a result of his research in our laboratory:

1. Gabriel E. Mejia-Ruiz, M. R. Arrieta-Paternina, P. Korba, and F. R. Segundo Sevilla, "Real-Time Co-simulation of Transmission and Distribution Networks Integrated with Distributed Energy Resources for Frequency and Voltage Support," *Applied Energy*, Volume 347, 2023, ISSN 0306-2619.
2. Gabriel E. Mejia-Ruiz, M. R. Arrieta-Paternina, P. Korba, and F. R. Segundo Sevilla, "Fast Hierarchical Coordinated Controller for Distributed Battery Energy Storage Systems to Mitigate Voltage and Frequency Deviations," *Applied Energy*, p. 26, 2022.

Should you require further information or verification, please do not hesitate to contact me.

Sincerely

A handwritten signature in blue ink, appearing to read 'F. R. Segundo Sevilla', with a stylized flourish at the end.

Dr. Felix Rafael Segundo Sevilla

Dozent
Zurich University of Applied Sciences