References

[1] J. H. R. Enslin and P. J. M. Heskes, 'Harmonic Interaction Between a Large Number of Distributed Power Inverters and the Distribution Network', *IEEE Transactions on Power Electronics*, vol. 19, no. 6. Institute of Electrical and Electronics Engineers (IEEE), pp. 1586–1593, Nov. 2004.

[2] M. Moghbel *et al.*, 'Fluctuations in the Output Power of Photovoltaic Systems Distributed Across a Town with an Isolated Power System Using High-Resolution Data', 2019.

[3] M. Höckel, A. Gut, M. Arnal, R. Schild, P. Steinmann, and S. Schori, 'Measurement of voltage instabilities caused by inverters in weak grids', *CIRED - Open Access Proceedings Journal*, vol. 2017, no. 1. pp. 770–774, Oct. 2017.

[4] E. Möllerstedt and B. Bernhardsson, 'Out of control because of harmonics-an analysis of the harmonic response of an inverter locomotive', *IEEE Control Systems*, vol. 20, no. 4. pp. 70–81, Aug. 2000.

[5] X. Wang and F. Blaabjerg, 'Harmonic Stability in Power Electronic Based Power Systems: Concept, Modeling, and Analysis', *IEEE Transactions on Smart Grid*. Institute of Electrical and Electronics Engineers (IEEE), p. 1, 2018.

[6] J. Sun, 'Impedance-based stability criterion for grid-connected inverters', *IEEE Transactions on Power Electronics*, vol. 26, no. 11. Institute of Electrical and Electronics Engineers (IEEE), pp. 3075–3078, Nov. 2011.

[7] E. Kaufhold, J. Meyer, S. Muller, and P. Schegner, 'Probabilistic Stability Analysis for Commercial Low Power Inverters Based on Measured Grid Impedances', in *2019 9th International Conference on Power and Energy Systems (ICPES)*, Dec. 2019, pp. 1–6.

[8] E. Kaufhold, J. Meyer, and P. Schegner, 'Measurement Framework for Analysis of Dynamic Behavior of Single-Phase Power Electronic Devices', in *International Conference on Renewable Energies and Power Quality (ICREPQ'20)*, 2020.

[9] E. Kaufhold, J. Meyer, and P. Schegner, 'Transient response of single-phase photovoltaic inverters to step changes in supply voltage distortion', in *19th International Conference on Harmonics and Quality of Power (ICHQP)*, 2020.

[10] M. Klatt, R. Stiegler, J. Meyer, and P. Schegner, 'Generic frequency-domain model for the emission of PWM-based power converters in the frequency range from 2 to 150 kHz', *IET Generation, Transmission & Distribution*, vol. 13, no. 24. pp. 5478–5486, 2019.

[11] M. Klatt, J. Meyer, P. Schegner, and C. Lakenbrink, 'Characterization of supraharmonic emission caused by small photovoltaic inverters', in *Mediterranean Conference on Power Generation, Transmission, Distribution and Energy Conversion (MedPower 2016)*, 2016, pp. 78 (6 .)-78 (6 .).

[12] E. Kaufhold, J. Meyer, and P. Schegner, 'Impact of grid impedance and their resonance on the stability of single-phase PV-inverters in low voltage grids', in *29th IEEE International Symposium on Industrial Electronics*, 2020.

[13] R. Stiegler, J. Meyer, S. Schori, M. Höckel, J. Drápela, and T. Hanzlík, 'Survey of network impedance in the frequency range 2-9 kHZ in public low voltage networks in AT / CH / CZ / GE', in *25th International Conference on Electricity Distribution*, 2019, no. June, pp. 3–6.

[14] R. Teodorescu, M. Liserre, and P. Rodríguez, *Grid Converters for Photovoltaic and Wind Power Systems*. Chichester, UK: John Wiley & Sons, Ltd, 2011.

[15] E. Kaufhold, J. Meyer, and P. Schegner, 'Modular White-Box Model of single-phase Photovoltaic Systems for Harmonic Studies', in *2019 IEEE Milan PowerTech*, Jun. 2019, pp. 1–6.

[16] E. Kaufhold, J. Meyer, P. Schegner, A. S. Abdelsamad, and J. M. A. Myrzik, 'Comparison of solvers for time-domain simulations of single-phase photovoltaic systems', in *2020 International Conference on Smart Grids and Energy Systems (SGES)*, Nov. 2020, pp. 550–555.

[17] S. R. Hall and N. M. Wereley, 'Generalized Nyquist Stability Criterion for Linear Time Periodic Systems', *1990 American Control Conference*. pp. 1518–1525, 1990.

[18] R. E. Kalman, 'A New Approach to Linear Filtering and Prediction Problems', *Journal of Basic Engineering*, vol. 82, no. 1. pp. 35–45, Mar. 1960.

[19] B. H. Lin, J. T. Tsai, and K. L. Lian, 'A Non-Invasive Method for Estimating Circuit and Control Parameters of Voltage Source Converters', *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 66, no. 12. IEEE, pp. 4911–4921, Dec. 2019.

[20] F. Alonge, F. D'Ippolito, F. M. Raimondi, and S. Tumminaro, 'Nonlinear Modeling of DC/DC Converters Using the Hammerstein's Approach', *IEEE Transactions on Power Electronics*, vol. 22, no. 4. Institute of Electrical and Electronics Engineers (IEEE), pp. 1210–1221, Jul. 2007.

[21] N. Patcharaprakiti *et al.*, 'Modeling of single phase inverter of photovoltaic system using Hammerstein–Wiener nonlinear system identification', *Current Applied Physics*, vol. 10, no. 3. Elsevier B.V., pp. S532–S536, May 2010.

[22] A. S. Abdelsamad, J. M. A. Myrzik, E. Kaufhold, J. Meyer, and P. Schegner, 'Nonlinear identification approach for black-box modeling of voltage source converter harmonic characteristics', in *2020 IEEE Electric Power and Energy Conference EPEC 2020*, 2020.

[23] E. Kaufhold, S. Grandl, J. Meyer, and P. Schegner, 'Feasibility of Black-Box Time Domain Modeling of Single-Phase Photovoltaic Inverters Using Artificial Neural Networks', *Energies*, vol. 14, no. 8. p. 2118, Apr. 2021.

[24] D. G. Holmes and T. A. Lipo, *Pulse Width Modulation for Power Converters*. IEEE, 2003.