TU Clausthal

Kolloquium zur Masterarbeit

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„Investigating the Effects of Non-uniform Input Data Windowing on Electrical Load Disaggregation Performance"

Nonintrusive Load Monitoring (NILM) is a computational approach to decomposing aggregate load signals into individual consumption profiles. State-of-the-art NILM methods based on neural networks have shown remarkable disaggregation accuracy results. Internally, the network input data are sampled based on a uniform windowing technique with a fixed input window length, which limits the available data, affecting the disaggregation performance. In addition, the use of different window length configurations per device increases the complexity of the model. In this thesis, a windowing method is proposed using nonlinear algebraic functions to capture the input data points. The goal is to investigate the effect of expanding the time interval of the input window on load disaggregation without influencing the model complexity. The experiment results elucidated a promising potential of non-uniform sampling compared to the baseline.

Dienstag, den 22.03.2022, 13.00 Uhr

Videokonferenz: BBB https://webconf.tu-clausthal.de/b/and-jz2-7df