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Nomenclature

Abbreviations

AC	Alternating Current
ADC	Analog to Digital Converter
AI	Artificial Intelligence
BESS	Battery Energy Storage System
BIC	Bidirectional Interlink Converter
CLR	Current Limiting Reactor
CM	Confusion Matrix
CHIL	Control Hardware-in-Loop
CNN	Convolutional Neural Network
CSS	Cascading Style Sheets
DApp	Decentralized Application
Dos	Denial of Service
DC	Direct Current
DG	Distributed Generation
DER	Distributed Energy Resources
DSP	Digital Signal Processing

DSO	Digital Storage Oscilloscope
DAC	Digital to Analog Converter
FCN	Fully Connected Network
FDI	False Data Injection
FN	False Negative
FP	False Positive
GPIO	General Purpose Input Output
GPS	Global Positioning System
GCN	Graph Convolutional Network
GFT	Graph Fourier Transform
GNN	Graph Neural Network
GTAI	Gigabit Transceiver Analog Input
GTAO	Gigabit Transceiver Analog Output
GTDI	Gigabit Transceiver Digital Input
HIL	Hardware-in-loop
LANs	Local Area Networks
LSTM	Long Short Term Memory
LG	Line-to-ground
LLG	Double Line-to-ground
LLLG	Triple Line-to-ground
IED	Intelligent Electronic Device
MPPT	Maximum Power Point Tracking

MVDC	Medium Voltage Direct Current
NGF	Negative pole-to-ground Fault
OMS	Outage Management System
P2P	Peer to Peer
PCC	Point of common coupling
PGF	Positive pole-to-ground Fault
POC	Passive Oscillator Circuit
PPF	Pole-to-pole Fault
PV	Photovoltaic
PoW	Proof of Work
PoS	Proof of Stake
ReLu	Rectified Linear Unit
RES	Renewable Energy Source
RTDS	Real Time Digital Simulator
SOC	State of Charge
SNR	Signal-to-Noise Ratio
SVM	Support Vector Machine
TN	True Negative
TP	True Positive
TSA	Time Synchronization Attack
VSC	Voltage Source Converter
WECS	Wind energy conversion system

Variables

ξ	Disturbance Index
k	Threshold of ξ
ω_0	Resonant Frequency
ω_d	Damped Resonant Frequency
α	Attenuation Constant
N	Total number of samples considered

Superscripts

F	Any parameter during fault
pre	Any parameter during pre-fault

Subscripts

$+$	Positive-pole quantity
$-$	Negative-pole quantity
ab	From bus-a to bus-b
ba	From bus-b to bus-a