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LIST OF ABBREVIATIONS

ANFIS	Adaptive Network-based Fuzzy Inference System
APR	April
ARIMA	Autoregressive Integrated Moving Average
AUG	August
AverObs	Average Observe
AverSim	Average Simulation
B	Bottom Tunnel
CFRD	Concrete Face Rock fill Dam
cms	Cubic Meter per Second
DEC	December
DFT	Discrete Fourier Transform
DMs	Decision Making
DPSA	Dynamic Programming Successive Approximation
DSSVue	Data Storage System Visual Utility Engine
EDL	Electricite du Lao
EDL-Gen	Electricite Du Lao-Generation Public Company
EG	Energy Generation
EI	Efficiency Index
Ev	Evaporation
FEB	February
FFLP	Fuzzy linear Programming Model
FFT	Fast Fourier Transform
FT	Thosmas Fiering
GA	Genetic Algorithm
GW	Giga watts (10^9 W)
GWh	Giga Watt Hours (10^9 Wh)
H	Head (m)
Ha	Hectare
HEC	Hydrology Engineering Center
HPP	Hydropower Plants

HWL _F	Head Water Level First Time
HWL _E	Head Water Level End Time
IPP	Independent Power Producer
IPPe	Independent Power Producer Export
IPPd	Independent Power Producer Domestic
IPSO	Improved Particle Swarm Optimization
JAN	January
JUL	July
JUN	June
Km	Kilometers (1,000 m)
Km ²	Square Kilo Meter
KWh	Kilo Watt Hour
Lao PDR	Lao People's Democratic Republic
LRC	Lower Rule Curve
LWC	Little Watery Criterion
MAD	Mean absolute Deviation
MAPE	Mean absolute Percentage Error
MAR	March
MAY	May
MCM	Million Cubic Meter
MLE	Maximum Likelihood Estimation
MW	Mega Watts (10 ⁶ W)
MWh	Mega Watt – Hours (10 ⁶ Wh)
MVA	Mega Volt – Ampere (10 ⁶ VA)
m ³ /s	Cubic Meter Per Second
masl	Meter above sea level
mm	Milli Meter
NCC	National Control Center
NOV	November
NSGA-II	NON-dominated sorting genetic algorithm II model
NWC	Normal Watery Criterion
Obs	Observe Data

OCT	October
OC	Operation Curve
P	Power (W)
Pmax	Power Generation Maximum
Pmin	Power Generation Minimum
PSO	Particle Swarm Optimization
POA	Progressive Optimization Algorithm
Qin	Water Inflow
Qs	Water Release from Spillway
Qt	Water Discharge Turbine
r	Pearson Correlation Coefficient
RCC	Roller Concrete Compact
REev	Reservoir Elevation
ResSim	Reservoir Simulation
RMES	Root Mean Square Error
R/min	Round per Minute
SEP	September
Sim	Simulation Results
SPSS	Statistical Package for Social Sciences
SSARR	Streamflow Synthesis and Reservoir Regulation
St	Water Storage in Reservoir
URC	Upper Rule Curve
USD	United stated Dollar
VWC	Very Watery Criterion
WNN	Wavelet Neural Network
WCLR	Watery Criterion that Little Rather
WCVR	Watery Criterion that Very Rather