

## LIST OF ABBREVIATIONS

ARN	-	Active Routing Nodes
ACHTH-LEACH	-	Adaptive Cluster Head Election and Two-hop LEACH protocol
ACSA	-	Adaptive Cuckoo Search Algorithm
AECRP	-	Adaptive Energy-Efficient Clustering Routing Protocol
AODV	-	Ad-hoc on Demand Distance Vector
AES	-	Advanced Encryption Standard
ANOVA	-	Analysis of Variance
ACA	-	Ant Colony Algorithm
ACO	-	Ant Colony Optimization
AFSO	-	Artificial Fish Swarm Optimization
ALERT	-	Automated Local Evaluation in Real Time
ARP	-	Automatic Repeat Request
BFO	-	Bacterial Foraging Optimization
BS	-	Base Station
B.A.T.M.A.N	-	Better Approach To Mobile Adhoc Networking
BER	-	Bit Error Rate
CRCQGA	-	Catastrophic Real-coded Chaotic Quantum- inspired Genetic Algorithm
CH	-	Cluster Heads
CDMA	-	Code-Division Multiple Access
COTS	-	Commercial Off-the-Shelf
CLPSO	-	Comprehensive Learning Particle Swarm Optimization

CS	-	Compressive Sensing
CATRP	-	Context-Aware Technology and the WSN Routing Protocol
CS	-	Cuckoo Search
DARPA	-	Defense Advanced Research Projects Agency
DDCHS	-	Density and Distance based Cluster Head Selection
DSDV	-	Destination-Sequenced Distance-Vector Routing
DE	-	Differential Evolution
DD-LEACH	-	Directed Diffusion LEACH
DHAC	-	Distributed Hierarchical Agglomerative Clustering
DSR	-	Dynamic Source Routing
DRRP	-	Dynamically Reconfigurable Routing Protocol
Ef	-	Efficiency
EMI	-	Electro-Magnetic Interference
EACHS	-	Energy Approximation CH Selection
EARBB	-	Energy-Aware Routing Based on Beaconing
ECRPW	-	Energy-Efficient Clustering Routing Protocol Based On Weight
EA	-	Evolutionary Algorithm
FEC	-	Forward Error Correction
4L-LEACH	-	Four-level LEACH
FAHP	-	Fuzzy AHP and hierarchical fuzzy integral
MADM	-	Fuzzy Multiple Attribute Decision-Making
GA	-	Genetic Algorithm
HW-SW	-	Hardware-Software
HRP-DCM	-	Hierarchical Routing Protocol using a Dynamic Clustering Mechanism

HCTT	-	Hybrid Clustering for multi-Target Tracking
H-DHAC	-	Hybrid Distributed Hierarchical Agglomerative Clustering
HERF	-	Hybrid Energy Efficient Routing using a Fuzzy method
IERP	-	Inter- Zone Routing Protocol
IARP	-	Intra-Zone Routing Protocol
LP/NLP	-	Linear/Nonlinear Programming
LEACH	-	Low-Energy Adaptive Clustering Hierarchy
MA	-	Markovian Agent
MAM	-	Markovian Agent Model
MANET	-	Mobile Ad Hoc Network
ME	-	Mobile Element
MS	-	Mobile Sensors
MODLEACH	-	Modified LEACH
MODLEACHHT	-	MODLEACH with Hard Threshold
MODLEACHST	-	MODLEACH with Soft Threshold
MOTPSMA	-	MOO approach of TPSMA
MOPSO	-	Multi-Objective PSO
MISO	-	Multiple Input Single Output
MTT	-	Multi-Target Tracking
NSF	-	National Science Foundation
NNA	-	Nearest-Neighbor Algorithm
NDCM	-	Node Density based Clustering and Mobile Collection
NDF	-	Node Density Field
OP-LEACH	-	Optimized LEACH
OLSR	-	Optimized Link State Routing
PDR	-	Packet Delivery Ratio

PSO	-	Particle Swarm Optimisation
PHCR	-	Partition-based Hybrid Clustering Routing protocol
Q-LEACH	-	Quadrature-LEACH
QoS	-	Quality of Service
RCA	-	Radio Channel Allocation
RTO	-	Ratio Traffic Overhead
RCQGA	-	Real-Coded Quantum Genetic Algorithm
RERR	-	Route ERRor
RREP	-	Route REPlY
RREQ	-	Route REQuest
SBHRA	-	Section Based Hybrid Routing Protocol for heterogeneous WSN using Artificial Bee Colony
SAODV	-	Secure Ad hoc On-Demand Distance Vector
SENSIT	-	Sensor Information Technology
SN	-	Sensor Nodes
SID	-	Source-Initiated Dissemination
SARA	-	Swarm Autonomous Routing Algorithm
SI	-	Swarm Intelligence
SIDG-MS	-	Swarm Intelligence and Load Balancing Strategy for Mobile Sink
TPSMA	-	Territorial Predator Scent Marking Algorithm
TORA	-	Theoretical Optimal Routing Algorithm
3L-LEACH	-	Three-level LEACH
TEEN	-	Threshold-sensitive Energy-Efficient sensor Network protocol
TDMA	-	Time Division Multiple Access
TPSO	-	Transmission Power Self-Optimization
EF	-	Tree-Earliest-First Tree

TL-LEACH	-	Two-level LEACH
NUCPP-Node	-	Uncorrelated Pseudonym Pairwise Mechanism
UAVs	-	Unmanned Aerial Vehicles
WSN	-	Wireless Sensor Networks
ZRP	-	Zone Routing Protocol

