NS2 (NETWORK SIMULATOR) FINAL YEAR PROJECT TITLES

WSN (Wireless Sensor Networks) Projects in NS2

Sl.No	Project Code	WSN (Wireless Sensor Networks) Project Titles	Domain	Simulation Tool
1	JPN1928	Energy Efficient Routing Algorithm with Mobile Sink Support for Wireless Sensor Networks	Wireless Sensor Networks	NS2
2	JPN1930	A Low-Latency Communication Scheme for Mobile Wireless Sensor Control Systems	Wireless Sensor Networks	NS2
3	JPN1830	Location Verification Assisted by a Moving Obstacle for Wireless Sensor Networks	Wireless Sensor Networks	NS2
4	JPN1710	A Self-Adaptive Sleep/Wake-Up Scheduling Approach for Wireless Sensor Networks	Wireless Sensor Networks	NS2
5	JPN1711	E2HRC: An Energy-Efficient Heterogeneous Ring Clustering Routing Protocol for Wireless Sensor Networks	Wireless Sensor Networks	NS2
6	JPN1712	Energy Efficient Clustering Algorithm for Multi-Hop Wireless Sensor Network Using Type-2 Fuzzy Logic	Wireless Sensor Networks	NS2
7	JPN1721	SEND: A Situation-Aware Emergency Navigation Algorithm with Sensor Networks	Wireless Sensor Networks	NS2
8	JPN1724	A Novel Authentication and Key Agreement Scheme for Implantable Medical Devices Deployment	Wireless Sensor Networks	NS2
9	JPN1725	A Secure and Efficient ID-Based Aggregate Signature Scheme for Wireless Sensor Networks	Wireless Sensor Networks	NS2
10	JPN1727	Lightweight Three-factor Authentication and Key Agreement Protocol for Internet-integrated Wireless Sensor Networks	Wireless Sensor Networks	NS2
11	JPN1731	ROSE: Robustness Strategy for Scale-Free Wireless Sensor Networks	Wireless Sensor Networks	NS2
12	JPN1755	A Cooperative Clustering Protocol With Duty Cycling for Energy Harvesting Enabled Wireless Sensor Networks	Wireless Sensor Networks	NS2
13	JPN1756	An Improved Routing Algorithm Based on Ant Colony Optimization in Wireless Sensor Networks	Wireless Sensor Networks	NS2
14	JPN1609	A Kautz-Based Wireless Sensor and Actuator Network for Real-Time, Fault-Tolerant and Energy-Efficient Transmission	Wireless Sensor Networks	NS2
15	JPN1611	Cluster-Based Routing for the Mobile Sink in Wireless Sensor Networks With Obstacles	Wireless Sensor Networks	NS2
16	JPN1613	DaGCM: A Concurrent Data Uploading Framework for Mobile Data Gathering in Wireless Sensor Networks	Wireless Sensor Networks	NS2

17	JPN1615	Distributed Emergency Guiding with Evacuation Time Optimization Based on Wireless Sensor Networks	Wireless Sensor Networks	NS2
18	JPN1617	Fair Routing for Overlapped Cooperative Heterogeneous Wireless Sensor Networks	Wireless Sensor Networks	NS2
19	JPN1618	Geographic and Opportunistic Routing for Underwater Sensor Networks	Wireless Sensor Networks	NS2
20	JPN1619	iPath: Path Inference in Wireless Sensor Networks	Wireless Sensor Networks	NS2
21	JPN1624	Mobile Coordinated Wireless Sensor Network: An Energy Efficient Scheme for Real-Time Transmissions	Wireless Sensor Networks	NS2
22	JPN1626	Privacy-Preserving Data Aggregation in Mobile Phone Sensing	Wireless Sensor Networks	NS2
23	JPN1629	DTMAC: A Delay Tolerant MAC Protocol for Underwater Wireless Sensor Networks	Wireless Sensor Networks	NS2
24	JPN1631	ActiveTrust: Secure and Trustable Routing in Wireless Sensor Networks	Wireless Sensor Networks	NS2
25	JPN1632	Adaptive and Channel-Aware Detection of Selective Forwarding Attacks in Wireless Sensor Networks	Wireless Sensor Networks	NS2
26	JPN1634	Energy and Memory Efficient Clone Detection in Wireless Sensor Networks	Wireless Sensor Networks	NS2
27	JPN1636	Reliable and Efficient Data Acquisition in Wireless Sensor Networks in the Presence of Transfaulty Nodes	Wireless Sensor Networks	NS2
28	JPN1668	Detecting Node Failures in Mobile Wireless Networks: A Probabilistic Approach	Wireless Sensor Networks	NS2
29	JPN1676	ESync: Energy Synchronized Mobile Charging in Rechargeable Wireless Sensor Networks	Wireless Sensor Networks	NS2
30	JPN1677	On the Construction of Data Aggregation Tree with Minimum Energy Cost in Wireless Sensor Networks: NP-Completeness and Approximation Algorithms	Wireless Sensor Networks	NS2
31	JPN1501	A Historical-Beacon-Aided Localization Algorithm for Mobile Sensor Networks	Wireless Sensor Networks	NS2
32	JPN1512	A Virtual Coordinate-Based Bypassing Void Routing for WSN	Wireless Sensor Networks	NS2
33	JPN1514	An Energy Efficient Cross-Layer Network Operation Model for IEEE 802.15.4-Based Mobile WSN	Wireless Sensor Networks	NS2
34	JPN1515	Cost-Aware SEcure Routing (CASER) Protocol Design for WSN	Wireless Sensor Networks	NS2
35	JPN1517	Geographic Routing in Clustered WSN Among Obstacles	Wireless Sensor Networks	NS2

36	JPN1520	Joint Virtual MIMO and Data Gathering for WSN	Wireless Sensor Networks	NS2
37	JPN1521	Mobile Data Gathering with Load Balanced Clustering and Dual Data Uploading in Wireless Sensor Networks	Wireless Sensor Networks	NS2
38	JPN1523	PWDGR: Pair-Wise Directional Geographical Routing Based on Wireless Sensor Network	Wireless Sensor Networks	NS2
39	JPN1526	A Lightweight Secure Scheme for Detecting Provenance Forgery and Packet Drop Attacks in Wireless Sensor Networks	Wireless Sensor Networks	NS2
40	JPN1527	A Secure Scheme Against Power Exhausting Attacks in Hierarchical Wireless Sensor Networks	Wireless Sensor Networks	NS2
41	JPN1528	An Efficient Distributed Trust Model for Wireless Sensor Networks	Wireless Sensor Networks	NS2
42	JPN1529	An Encryption Scheme Using Chaotic Map and Genetic Operations for Wireless Sensor Networks	Wireless Sensor Networks	NS2
43	JPN1530	Effective Key Management in Dynamic Wireless Sensor Networks	Wireless Sensor Networks	NS2
44	JPN1531	Secure and Distributed Data Discovery and Dissemination in Wireless Sensor Networks	Wireless Sensor Networks	NS2
45	JPN1541	Secure Data Aggregation Technique for Wireless Sensor Networks in the Presence of Collusion Attacks	Wireless Sensor Networks	NS2
46	JPN1543	E2R2 Energy-Efficient and Reliable Routing for Mobile Wireless Sensor Networks	Wireless Sensor Networks	NS2
47	JPN1407	ALBA-R Load-Balancing Geographic Routing Around Connectivity Holes in Wireless Sensor Networks	Wireless Sensor Networks	NS2
48	JPN1408	Hop-by-Hop Message Authentication and Source Privacy in Wireless Sensor Networks	Wireless Sensor Networks	NS2
49	JPN1410	Secure and Efficient Data Transmission for Cluster-Based Wireless sensor Networks	Wireless Sensor Networks	NS2
50	JPN1412	Transmission-Efficient Clustering Method for Wireless sensor networks using Compressive Sensing	Wireless Sensor Networks	NS2
51	JPN1413	An Energy-Balanced Routing Method Based on Forward-Aware Factor for Wireless Sensor Networks	Wireless Sensor Networks	NS2
52	JPN1415	R3E Reliable Reactive Routing Enhancement for Wireless Sensor Networks	Wireless Sensor Networks	NS2
53	JPN1428	Secure Data Aggregation in Wireless Sensor Networks: Filtering out the Attacker's Impact	Wireless Sensor Networks	NS2
54	JPN1316	Target Tracking and Mobile Sensor Navigation in Wireless Sensor Networks	Wireless Sensor Networks	NS2
55	JPN1317	Toward a Statistical Framework for Source Anonymity in Sensor Networks	Wireless Sensor	NS2

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56	JPN1318	Mobile Relay Configuration in Data-Intensive Wireless Sensor Networks	Wireless Sensor Networks	NS2
57	JPN1323	On the Node Clone Detection in Wireless Sensor Networks	Wireless Sensor Networks	NS2
58	JPN1325	A Highly Scalable Key Pre-Distribution Scheme for Wireless Sensor Networks	Wireless Sensor Networks	NS2
59	JPN1202	A Trigger Identification Service for Defending Reactive Jammers in WSN	Wireless Sensor Networks	NS2
60	JPN1229	Secure Data Aggregation in Wireless Sensor Networks	Wireless Sensor Networks	NS2

MANET (Mobile Ad-hoc Networks) Projects in NS2

Sl.No	Project Code	MANET (Mobile Ad-hoc Networks) Project Titles	Domain	Simulation Tool
1	JPN1803	M-LionWhale: multi-objective optimization model for secure routing in mobile ad-hoc network	MANET	NS2
2	JPN1831	Reputation and Trust Based Selfish Node Detection System in MANETs	MANET	NS2
3	JPN1701	A Delay-Sensitive Multicast Protocol for Network Capacity Enhancement in Multirate MANETs	MANET	NS2
4	JPN1703	Contradiction Based Gray-Hole Attack Minimization for Ad-Hoc Networks	MANET	NS2
5	JPN1705	Energy Efficient Multipath Routing Protocol for Mobile ad-hoc Network Using the Fitness Function	MANET	NS2
6	JPN1707	SUPERMAN: Security Using Pre-Existing Routing for Mobile Ad hoc Networks	MANET	NS2
7	JPN1601	A Novel Approach for Efficient Usage of Intrusion Detection System in Mobile Ad Hoc Networks	MANET	NS2
8	JPN1605	Mitigating Denial of Service Attacks in OLSR Protocol Using Fictitious Nodes	MANET	NS2
9	JPN1607	Top-k Query Processing and Malicious Node Identification Based on Node Grouping in MANETs	MANET	NS2
10	JPN1608	Resisting Blackhole Attacks on MANETs	MANET	NS2

11	JPN1502	CoCoWa: A Collaborative Contact-Based Watchdog for Detecting Selfish Nodes	MANET	NS2
12	JPN1503	Cooperative Load Balancing and Dynamic Channel Allocation for Cluster-Based Mobile Ad Hoc Networks	MANET	NS2
13	JPN1504	Defending Against Collaborative Attacks by Malicious Nodes in MANETs: A Cooperative Bait Detection Approach	MANET	NS2
14	JPN1510	Privacy-Preserving and Truthful Detection of Packet Dropping Attacks in Wireless Ad Hoc Networks	MANET	NS2
15	JPN1539	Passive IP Traceback: Disclosing the Locations of IP Spoofers from Path Backscatter	MANET	NS2
16	JPN1540	Time-Delayed Broadcasting for Defeating Inside Jammers	MANET	NS2
17	JPN1417	AASR Authenticated Anonymous Secure Routing Protocol for MANETs in Adversarial Environment	MANET	NS2
18	JPN1418	PSR A Lightweight Proactive Source Routing Protocol for Mobile Ad Hoc Networks	MANET	NS2
19	JPN1423	STARS A Statistical Traffic Pattern Discovery System for MANETs	MANET	NS2
20	JPN1429	A Model Approach to the Estimation of Peer-to-Peer Traffic Matrices	MANET	NS2
21	JPN1301	A Rank Correlation Based Detection against Distributed Reflection DoS Attacks	MANET	NS2
22	JPN1302	Adaptive Position Update for Geographic Routing in Mobile Ad Hoc Networks	MANET	NS2
23	JPN1303	ALERT: An Anonymous Location-Based Efficient Routing Protocol in MANETs	MANET	NS2
24	JPN1308	Discovery and Verification of Neighbor Positions in Mobile Ad Hoc Networks	MANET	NS2
25	JPN1310	EAACK—A Secure Intrusion-Detection System for MANETs	MANET	NS2
26	JPN1311	Efficient Algorithms for Neighbor Discovery in Wireless Networks	MANET	NS2
27	JPN1312	Enhanced OLSR for Defense against DOS Attack in Ad Hoc Networks	MANET	NS2

28	JPN1313	Opportunistic MANETs: Mobility Can Make Up for Low Transmission Power	MANET	NS2
29	JPN1321	Vampire Attacks: Draining Life from Wireless Ad Hoc Sensor Networks	MANET	NS2
30	JPN1322	Detection and Localization of Multiple Spoofing Attackers	MANET	NS2
31	JPN1328	Performance Evaluation of Ad Hoc Routing Protocols Using NS2 Simulation	MANET	NS2

VANET (Vehicular Ad Hoc Networks) Projects in NS2

Sl.No	Project Code	VANET (Vehicular Ad Hoc Networks) Project Titles	Domain	Simulation Tool
1	JPN1739	MoZo: A Moving Zone Based Routing Protocol Using Pure V2V Communication in VANETs	VANET	NS2
2	JPN1744	Enhancing Security and Privacy for Identity-based Batch Verification Scheme in VANET	VANET	NS2
3	JPN1746	REPLACE: A Reliable Trust-based Platoon Service Recommendation Scheme in VANET	VANET	NS2
4	JPN1754	Safety-aware Location Privacy in VANET: Evaluation and Comparison	VANET	NS2
5	JPN1640	ART: An Attack-Resistant Trust Management Scheme for Securing Vehicular Ad Hoc Networks	VANET	NS2
6	JPN1644	Dual Authentication and Key Management Techniques for Secure Data Transmission in Vehicular Ad Hoc Networks	VANET	NS2
7	JPN1645	LORA: Loss Differentiation Rate Adaptation Scheme for Vehicle-to-Vehicle Safety Communications	VANET	NS2
8	JPN1646	SCRP: Stable CDS-Based Routing Protocol for Urban Vehicular Ad Hoc Networks	VANET	NS2
9	JPN1647	Secure and Robust Multi-Constrained QoS Aware Routing Algorithm for VANETs	VANET	NS2
10	JPN1673	A Multi-Hop Broadcast Protocol for Emergency Message Dissemination in Urban VANET	VANET	NS2

11	JPN1740	Trustworthiness Evaluation-based Routing Protocol for Incompletely Predictable Vehicular Ad hoc Networks	VANET	NS2
12	JPN1688	Traffic Congestion Detection and Broadcasting by Using AODV in VANET	VANET	NS2
13	JPN1534	ACPN: A Novel Authentication Framework with Conditional Privacy-Preservation and Non-Repudiation for VANETs	VANET	NS2
14	JPN1535	BUS-VANET: A BUS Vehicular Network Integrated with Traffic Infrastructure	VANET	NS2
15	JPN1537	VANET Modeling and Clustering Design Under Practical Traffic, Channel and Mobility Conditions	VANET	NS2
16	JPN1234	We Can Deliver Messages to Far Vehicles	VANET	NS2
17	JPN1734	Adaptive Quality of Service based Routing for Vehicular Ad hoc Networks with Ant Colony Optimization	VANET	NS2
18	JPN1736	DIVERT: A Distributed Vehicular Traffic Re-routing System for Congestion Avoidance	VANET	NS2
19	JPN1306	BAHG: Back-Bone-Assisted Hop Greedy Routing for VANET's City Environments	VANET	NS2

Other Projects in NS2

Sl.No	Project Code	Other NS2 Project Titles	Domain	Simulation Tool
1	JPN1603	Detecting Colluding Blackhole and Greyhole Attacks in Delay Tolerant Networks	Networking	NS2
2	JPN1648	A Hop-by-Hop Routing Mechanism for Green Internet	Networking	NS2
3	JPN1655	Dynamic Network Control for Confidential Multi-Hop Communications	Networking	NS2
4	JPN1665	Security Analysis and Improvements on Two Homomorphic Authentication Schemes for Network Coding	Networking	NS2
5	JPN1544	Wormhole Attack Detection Algorithms in Wireless Network Coding Systems	Networking	NS2

6	JPN1401	A QoS-Oriented Distributed Routing Protocol for Hybrid Wireless Networks	Networking	NS2
7	JPN1403	Autonomous Mobile Mesh Networks	Networking	NS2
8	JPN1409	Neighbor Table Based Shortcut Tree Routing in ZigBee Wireless Networks	Networking	NS2
9	JPN1427	Secure Data Retrieval for Decentralized Disruption-Tolerant Military Networks	Networking	NS2
10	JPN1309	Distributed Cooperative Caching in Social Wireless Networks	Networking	NS2
11	JPN1320	A Distributed Control Law for Load Balancing in Content Delivery Networks	Networking	NS2
12	JPN1324	Resource Allocation for QoS Support in Wireless Mesh Networks	Networking	NS2

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