

# Carlos Montez

## List of Publications by Year in descending order

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104  
papers

735  
citations

840728

11  
h-index

713444

21  
g-index

104  
all docs

104  
docs citations

104  
times ranked

682  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Experimental Assessment of IEEE 802.15.4e LLDN Mode Using COTS Wireless Sensor Network Nodes. IEEE Access, 2022, 10, 12829-12837.   | 4.2 | 1         |
| 2  | Lossy Data Compression for IoT Sensors: A Review. Internet of Things (Netherlands), 2022, 19, 100516.   | 7.7 | 9         |
| 3  | LoRaWAN Adaptive Data Rate With Flexible Link Margin. IEEE Internet of Things Journal, 2021, 8, 6053-6061.  | 8.7 | 12        |
| 4  | Combining Network Coding and Retransmission Techniques to Improve the Communication Reliability of Wireless Sensor Network. Information (Switzerland), 2021, 12, 184.                                 | 2.9 | 11        |
| 5  | Co-Design of Consensus-Based Approach and Reliable Communication Protocol for Vehicular Platoon Control. IEEE Transactions on Vehicular Technology, 2021, 70, 9510-9524.                              | 6.3 | 10        |
| 6  | Data-driven Bottom-up Cluster-tree Formation based on the IEEE 802.15.4/ZigBee Protocols. , 2021, , .   |     | 0         |
| 7  | Assessment of Different Algorithms to Solve the Set-Covering Problem in a Relay Selection Technique. , 2020, , .  |     | 0         |
| 8  | Dynamic Reconfiguration of Cluster-Tree Wireless Sensor Networks to Handle Communication Overloads in Disaster-Related Situations. Sensors, 2020, 20, 4707.   | 3.8 | 9         |
| 9  | DMRVR: Dynamic Milk-Run Vehicle Routing Solution Using Fog-Based Vehicular Ad Hoc Networks. Electronics (Switzerland), 2020, 9, 2010.   | 3.1 | 5         |
| 10 | A New Association Scheme for Handling Node Mobility in Cluster-Tree Wireless Sensor Networks. Sensors, 2020, 20, 5694.  | 3.8 | 1         |
| 11 | An analytical model to estimate the state of charge and lifetime for batteries with energy harvesting capabilities. International Journal of Energy Research, 2020, 44, 5243-5258.                    | 4.5 | 7         |
| 12 | Cooperative Communication Mechanisms Applied to Wireless Sensor Network. IFIP Advances in Information and Communication Technology, 2020, , 121-128.  | 0.7 | 0         |
| 13 | Real-Time Analysis of Time-Critical Messages in IEC 61850 Electrical Substation Communication Systems. Energies, 2019, 12, 2272.  | 3.1 | 16        |
| 14 | Hierarchical Topology Formation in Large-Scale IEEE 802.15.4 Wireless Sensor Networks. , 2019, , .  |     | 2         |
| 15 | An Efficient Mechanism to Improve Convergecast Traffic in Cluster-tree Wireless Sensor Networks Based on IEEE 802.15.4. , 2019, , .   |     | 1         |
| 16 | Multi-criteria Analysis to Select Relay Nodes in the ORST Technique. Lecture Notes in Computer Science, 2019, , 167-182.  | 1.3 | 1         |
| 17 | Experimental assessment of LNC-based cooperative communication schemes using commercial off-the-shelf wireless sensor network nodes. International Journal of Communication Systems, 2018, 31, e3508. | 2.5 | 4         |
| 18 | A Hybrid Beacon Scheduling Scheme to Allow the Periodic Reconfiguration of Large-scale Cluster-tree WSNs. , 2018, , .   |     | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | Interference of IEEE 802.11n Networks upon IEEE 802.15.4-Based WBANs: An Experimental Study. , 2018, , .  |     | 4         |
| 20 | An Optimized Relay Selection Technique to Improve the Communication Reliability in Wireless Sensor Networks. Sensors, 2018, 18, 3263.   | 3.8 | 13        |
| 21 | Data-Based Cluster-Tree Formation Scheme for Large-Scale Wireless Sensor Networks. , 2018, , .  |     | 6         |
| 22 | An Advanced Battery Model for WSN Simulation in Environments With Temperature Variations. IEEE Sensors Journal, 2018, 18, 8179-8191.  | 4.7 | 10        |
| 23 | Reliable data dissemination protocol for VANET traffic safety applications. Ad Hoc Networks, 2017, 63, 30-44.   | 5.5 | 119       |
| 24 | CT-SIM: A simulation model for wide-scale cluster-tree networks based on the IEEE 802.15.4 and ZigBee standards. International Journal of Distributed Sensor Networks, 2017, 13, 155014771769847.   | 2.2 | 12        |
| 25 | Recovery Effect in Low-Power Nodes of Wireless Sensor Networks. Communications in Computer and Information Science, 2017, , 45-62.  | 0.5 | 0         |
| 26 | Enhanced association mechanism for IEEE 802.15.4 networks. , 2017, , .  |     | 6         |
| 27 | Smart: Adequate selection of relay nodes to support cooperative communication in WSNs. , 2017, , .  |     | 2         |
| 28 | Estimating the Lifetime of Wireless Sensor Network Nodes through the Use of Embedded Analytical Battery Models. Journal of Sensor and Actuator Networks, 2017, 6, 8.                                | 3.9 | 35        |
| 29 | A Temperature-Dependent Battery Model for Wireless Sensor Networks. Sensors, 2017, 17, 422.   | 3.8 | 37        |
| 30 | Superframe Duration Allocation Schemes to Improve the Throughput of Cluster-Tree Wireless Sensor Networks. Sensors, 2017, 17, 249.  | 3.8 | 19        |
| 31 | Alternative Path Communication in Wide-Scale Cluster-Tree Wireless Sensor Networks Using Inactive Periods. Sensors, 2017, 17, 1049.   | 3.8 | 4         |
| 32 | An Architecture for Information Fusion and for Detection, Identification and Treatment of Outliers in Wireless Sensor Networks. Communications in Computer and Information Science, 2017, , 81-100. | 0.5 | 2         |
| 33 | Design and implementation of a 6LoWPAN gateway for wireless sensor networks integration with the internet of things. International Journal of Embedded Systems, 2016, 8, 380.                       | 0.3 | 5         |
| 34 | NetCoDer: A Retransmission Mechanism for WSNs Based on Cooperative Relays and Network Coding. Sensors, 2016, 16, 799.   | 3.8 | 19        |
| 35 | Simulation models for IEC 61850 communication in electrical substations using GOOSE and SMV time-critical messages. , 2016, , .   |     | 19        |
| 36 | Experimental validation of a battery model for low-power nodes in Wireless Sensor Networks. , 2016, , .   |     | 6         |

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|----|--|------|-----------|
| 37 | An allocation scheme for IEEE 802.15.4-ZigBee cluster-tree networks. , 2016, , .   |      | 1         |
| 38 | Outlier detection using k-means clustering and lightweight methods for Wireless Sensor Networks. , 2016, , .   |      | 16        |
| 39 | Experimental assessment of using network coding and cooperative diversity techniques in IEEE 802.15.4 wireless sensor networks. , 2016, , .  |      | 3         |
| 40 | Design and implementation of a 6LoWPAN gateway for wireless sensor networks integration with the internet of things. International Journal of Embedded Systems, 2016, 8, 380.      | 0.3  | 3         |
| 41 | Skip game: an autonomic approach for QoS and energy management in IEEE 802.15.4 WSN. , 2015, , .   |      | 5         |
| 42 | Influence of Mobility Models in Precision Spray Aided by Wireless Sensor Networks. Journal of Physics: Conference Series, 2015, 574, 012153.                                       | 0.4  | 5         |
| 43 | Limitations of the IEEE 802.11 DCF, PCF, EDCA and HCCA to handle real-time traffic. , 2015, , .  |      | 12        |
| 44 | Organization model for Mobile Wireless Sensor Networks inspired in Artificial Bee Colony. Journal of Physics: Conference Series, 2015, 574, 012142.                                | 0.4  | 0         |
| 45 | A WSN data retransmission mechanism based on network coding and cooperative relayers. , 2015, , .  |      | 6         |
| 46 | A sleep-scheduling scheme for enhancing QoS and network coverage in IEEE 802.15.4 WSN. , 2015, , .   |      | 4         |
| 47 | An opportunistic approach to deal with real-time mesh communication in wireless sensor networks. , 2014, , .   |      | 1         |
| 48 | Quality of service provision assessment for DDBP approach in IEEE 802.15.4 networks. , 2014, , .   |      | 1         |
| 49 | An approach to implement data fusion techniques in wireless sensor networks using genetic machine learning algorithms. Information Fusion, 2014, 15, 90-101.                       | 19.1 | 56        |
| 50 | GLHOVE: A framework for uniform coverage monitoring using cluster-tree wireless sensor networks. , 2013, , .   |      | 7         |
| 51 | (m,k)-firm pattern spinning to improve the GTS allocation of periodic messages in IEEE 802.15.4 networks. Eurasip Journal on Wireless Communications and Networking, 2013, 2013, . | 2.4  | 11        |
| 52 | Energy consumption and spatial diversity trade-off in autonomic Wireless Sensor Networks: The (m,k)-Gur Game approach. , 2013, , .   |      | 5         |
| 53 | Polynomial Approximation of the Battery Discharge Function in IEEE 802.15.4 Nodes: Case Study of MicaZ. Advances in Intelligent Systems and Computing, 2013, , 901-910.            | 0.6  | 3         |
| 54 | Decentralized Power Aware Approach for Data Fusion in IEEE 802.15.4 Wireless Sensor Networks. , 2012, , .  |      | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Guaranteed Time Slot allocation for periodic messages with (m, k)-firm constraints in IEEE 802.15.4 networks. , 2012, , .   |     | 1         |
| 56 | Expansion of the available use classes in IEEE 802.15.4 networks for usage in the industrial environment. , 2012, , .   |     | 1         |
| 57 | A dynamic communication approach for data fusion in IEEE 802.15.4 Wireless Sensor Networks. , 2012, , .   |     | 2         |
| 58 | (m,k)-Gur Game: Exploiting Message Discards in Order to Increase the Lifetime and Spatial Diversity in Autonomic Wireless Sensor Networks. , 2012, , .  |     | 1         |
| 59 | Experimental evaluation of multiple retransmission schemes in IEEE 802.15.4 wireless sensor networks. , 2012, , .   |     | 6         |
| 60 | Self-optimization of dense wireless sensor networks based on simulated annealing. , 2012, , .   |     | 1         |
| 61 | A Transmission Power Self-Optimization Technique for Wireless Sensor Networks. ISRN Communications and Networking, 2012, 2012, 1-12.  | 0.5 | 7         |
| 62 | A Communication Approach for Parallel Data Fusion in IEEE 802.15.4 Wireless Sensor Networks. , 2011, , .  |     | 0         |
| 63 | A Predictable Execution Model for Digital TV Java Applications in Conformance with GEM Standard. , 2011, , .  |     | 0         |
| 64 | MASPO: A Mobile Agent System for Sun SPOT. , 2011, , .  |     | 14        |
| 65 | An adaptive approach for the determination of the itinerary of imprecise mobile agents with timing constraints. Web Intelligence and Agent Systems, 2011, 9, 257-268.                               | 0.4 | 0         |
| 66 | AS prediction mechanism for distributed threads systems. Journal of Parallel and Distributed Computing, 2011, 71, 1367-1376.  | 4.1 | 1         |
| 67 | A tiny distributed coordination protocol for wireless sensor networks as multi-agent system. , 2010, , .  |     | 0         |
| 68 | Evaluating a Transmission Power Self-Optimization Technique for WSN in EMI Environments. , 2010, , .  |     | 4         |
| 69 | Autonomic approaches for enhancing communication QoS in dense Wireless Sensor Networks with real time requirements. , 2010, , .   |     | 11        |
| 70 | VOA: Variable Offset Algorithm for the optimization of communication efficiency in wireless sensor networks. , 2010, , .  |     | 0         |
| 71 | Towards a transmission power self-optimization in reliable Wireless Sensor Networks. , 2010, , .  |     | 6         |
| 72 | Using BDI-Agents with Coordination without Communication to Increase Lifetime, Preserving Autonomy and Flexibility in Wireless Sensor Networks. Lecture Notes in Computer Science, 2010, , 243-252. | 1.3 | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | Distributed DBP: A (m,k)-firm based distributed approach for QoS provision in IEEE 802.15.4 networks. , 2009, , .   |     | 7         |
| 74 | On the use of hash tables in real-time applications. , 2009, , .  |     | 1         |
| 75 | Genetic Machine Learning algorithms in the optimization of communication efficiency in Wireless Sensor Networks. , 2009, , .  |     | 8         |
| 76 | Implementing assuring forward per hop behaviour class in web servers with dynamic scheduling and selective discards. International Journal of Communication Networks and Distributed Systems, 2009, 3, 249. | 0.4 | 0         |
| 77 | Deadline missing predictor based on aperiodic server queue length for distributed systems. Computer Communications, 2008, 31, 4167-4175.  | 5.1 | 3         |
| 78 | Genetic machine learning approach for data fusion applications in dense Wireless Sensor Networks. , 2008, , .   |     | 1         |
| 79 | Deadline Missing Prediction in Systems Based on Distributed Threads. , 2008, , .  |     | 0         |
| 80 | A mechanism for deadline missing prediction in systems based on distributed threads. , 2008, , .  |     | 0         |
| 81 | Determination of the itinerary of imprecise mobile agents using an adaptive approach. , 2008, , .   |     | 4         |
| 82 | Itinerary determination of imprecise mobile agents with firm deadline. Web Intelligence and Agent Systems, 2008, 6, 421-439.  | 0.4 | 4         |
| 83 | Analysis of evaluation metrics for networked control systems. , 2008, , .   |     | 0         |
| 84 | PROBABILISTIC REAL-TIME DATA FUSION IN WIRELESS SENSOR NETWORKS WITH ZIGBEE. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 267-272.                                | 0.4 | 1         |
| 85 | USING THE POLE PLACEMENT APPROACH IN A CO-DESIGN PROCEDURE FOR A NETWORKED CONTROL SYSTEM. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2007, 40, 154-159.                  | 0.4 | 0         |
| 86 | A Middleware for OSCAR and Wireless Sensor Network Environments. , 2007, , .  |     | 0         |
| 87 | Real-Time Dynamic Guarantee in Component-Based Middleware. , 2007, , .  |     | 0         |
| 88 | Prediction of end-to-end deadline missing in distributed threads systems. , 2007, , .   |     | 4         |
| 89 | Soft Real-Time Task Response Time Prediction in Dynamic Embedded Systems. Lecture Notes in Computer Science, 2007, , 273-282.   | 1.3 | 5         |
| 90 | Implementing class of service in web server using adaptive scheduling and admission control. , 2006, , .  |     | 1         |

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|-----|--|-----|-----------|
| 91  | A New Model for the Itinerary Definition of Real-Time Imprecise Mobile Agents. , 2006, , .   |     | 0         |
| 92  | A Clone-Pair Approach for the Determination of the Itinerary of Imprecise Mobile Agents with Firm Deadlines. , 2006, , .   |     | 4         |
| 93  | Codesign of CAN Networked Control Systems with Remote Controllers using Jitter Margin. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , . | 0.0 | 1         |
| 94  | Frad-Hoc: A Framework to Routing AD-Hoc Networks. International Federation for Information Processing, 2006, , 71-82.  | 0.4 | 0         |
| 95  | An adaptive model for programming distributed real-time applications in CORBA. , 0, , .  |     | 2         |
| 96  | An adaptive scheduling approach in real-time CORBA. , 0, , .   |     | 11        |
| 97  | Dealing with overloading in tasks scheduling. , 0, , .   |     | 0         |
| 98  | Infrastructure for virtual enterprises in large-scale open systems. , 0, , .   |     | 0         |
| 99  | Dynamic Determination of the Itinerary of Mobile Agents with Timing Constraints. , 0, , .  |     | 9         |
| 100 | Design Pattern for the Adaptive Scheduling of Real-Time Tasks with Multiple Versions in RTSJ. , 0, , .   |     | 2         |
| 101 | FTWeb: A Fault Tolerant Infrastructure for Web Services. , 0, , .  |     | 58        |
| 102 | Power Optimization for Wireless Sensor Networks. , 0, , .  |     | 5         |
| 103 | Um sistema de reputa~o baseado em Blockchain contra ataques de mensagens falsas em VANETs. , 0, , .  |     | 0         |
| 104 | Projeto Integrado de Controle de Pelot~es baseado em Consenso e um Protocolo de Dissemina~o de Dados Confi~vel. , 0, , .   |     | 0         |