

Appendix to the Article “Brazilian Smart Cities Through the Lens of Information Technology: A Systematic Mapping Study”

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1 Introduction

This document complements the information available in the article “Brazilian Smart Cities Through the Lens of Information Technology: A Systematic Mapping Study,” presented in Section 2, and includes the search strings used in the databases (ACM Digital Library, IEEE Xplore, Web of Science, Science Direct, and Scopus). References for the 642 selected articles are included at the end of the document. The extractions were conducted on April 26, 2025.

2 Extraction of Articles from Scientific Databases

2.1 ACM digital library

URL: <https://dl.acm.org/>

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     OR "smart cities" OR "smart city")
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OR
( Abstract:
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AND Affiliation:(brasil OR brazil)
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2.2 IEEE Xplore

URL: <https://ieeexplore.ieee.org/Xplore>

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  "Author Affiliations":Brasil OR
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2.3 Science Direct

URL: <https://www.sciencedirect.com/>

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Title, abstract, keywords:
  "cidade inteligente" OR
  "cidades inteligentes" OR
  "smart cities" OR "smart city"

Author Affiliation: Brazil OR Brasil
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2.4 Scopus

URL: <https://www.scopus.com/>

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AND AFFILCOUNTRY ( "brazil" OR "brasil" )

AND LIMIT-TO ( SUBJAREA , "COMP" )
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2.5 Web of Science

URL: <https://www.webofscience.com/wos/>

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)
AND
CU=(brasil OR brazil)
and Computer Science Information Systems (Web of Science Categories)
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References

- [1] Souza Lima, D.H., Aquino, A.L.L., Ramos, H.S., Almeida, E.S., Rodrigues, J.J.P.C.: OASys: An opportunistic and agile system to detect free on-street parking using intelligent boards embedded in surveillance cameras. *Journal of Network and Computer Applications* **46**, 241–249 (2014) <https://doi.org/10.1016/j.jnca.2014.09.001>
- [2] Feltes, L.H., Barbosa, J.L.V.: A Model for Ubiquitous Transport Systems Support. *IEEE Latin America Transactions* **12**(6), 1106–1112 (2014) <https://doi.org/10.1109/TLA.2014.6894007>
- [3] Alvarenga, S.C., Zarpelão, B.B., Jesus Soares, V.N.: A notification architecture for smart cities based on push technologies. In: *Latin American Computing Conference*, pp. 1–8 (2014). <https://doi.org/10.1109/CLEI.2014.6965177>
- [4] Schünke, L.C., Oliveira, L.P.L., Villamil, M.B.: Visualization and Analysis of Interacting Occurrences in a Smart City. In: *IEEE Symposium on Computers and Communication*, pp. 1–7 (2014). <https://doi.org/10.1109/ISCC.2014.6912490>
- [5] Freitas, C.A.S., Souza, F.B., Veloso, A.A.: Socialbots: Implications on the safety and reliability of Twitter-based services. In: *Brazilian Symposium On Computer Networks And Distributed Systems*, pp. 302–309 (2014). <https://doi.org/>

- [6] Fortes, M.Z., Ferreira, V.H., Sotelo, G.G., Silva Cabral, A., Correia, W.F., Pacheco, O.L.C.: Deployment of smart metering in the Búzios City. In: IEEE PES Transmission & Distribution Conference and Exposition - Latin America, pp. 1–6 (2014). <https://doi.org/10.1109/TDC-LA.2014.6955278>
- [7] Silva, I.N., Spatti, D.H., Flauzino, R.A., Cunha Santos, F.M., Lourenço, M.A., Silva, J.F.R., Somaio, B., Suiama, D., Dantas, I.R.N.: Study on the emergence and expansion of smart grids in divergent cities. In: IEEE PES Transmission & Distribution Conference and Exposition - Latin America, pp. 1–5 (2014). <https://doi.org/10.1109/TDC-LA.2014.6955286>
- [8] Ferraz, F.S., Ferraz, C.A.G.: Smart City Security Issues: Depicting Information Security Issues in the Role of an Urban Environment. In: International Conference on Utility and Cloud Computing, pp. 842–847 (2014). <https://doi.org/10.1109/UCC.2014.137>
- [9] Ferraz, F.S., Ferraz, C.A.G.: More Than Meets the Eye In Smart City Information Security: Exploring security issues far beyond privacy concerns. In: IEEE International Conference on Ubiquitous Intelligence and Computing and IEEE International Conference On Autonomic and Trusted Computing and IEEE International Conference on Scalable Computing and Communications, pp. 677–685 (2014). <https://doi.org/10.1109/UIC-ATC-ScalCom.2014.143>
- [10] Mendonça, R.D., Moura Braga Silva, T.R., Silva, F.A., Aylon, L.B.R., Loureiro, A.A.F.: Dynamic Bandwidth Distribution for Entertainment Vehicular Networks Applications. In: International Conference on Advanced Information Networking and Applications Workshops, pp. 827–832 (2014). <https://doi.org/10.1109/WAINA.2014.130>
- [11] Azambuja, L.S., Lheureux-De-Freitas, J., Moreira, C.R., Macadar, M.A.: A smart city initiative: a case study of Porto Alegre 156. In: Annual International Conference on Digital Government Research, pp. 245–252 (2014). <https://doi.org/10.1145/2612733.2612768>
- [12] Paredes, H., Fernandes, H., Sousa, A., Fernandes, L., Koch, F., Matos Fortes, R.P., Filipe, V., Barroso, J.: Exploring smart environments through human computation for enhancing blind navigation. *Communications in Computer and Information Science* **541**, 66–76 (2015) https://doi.org/10.1007/978-3-319-24804-2_5
- [13] Felice, M.D., Cerqueira, E.C., Melo, A., Gerla, M., Cuomo, F., Baiocchi, A.: A distributed beaconless routing protocol for real-time video dissemination in multimedia VANETs. *Computer Communications* **58**(1, SI), 40–52 (2015) <https://doi.org/10.1016/j.comcom.2014.08.009>

- [14] Gampert, G., Cervi, C.R.: An approach using profile and recommendation to report urban infrastructure problems. In: International Conference WWW/Internet, pp. 156–160 (2015)
- [15] Diniz, H.B.M., Silva, E.C.G.F., Gama, K.S.: A Reference Architecture for a Crowdsensing Platform in Smart Cities. In: Annual Conference on Brazilian Symposium on Information Systems, Information Systems: A Computer Socio-Technical Perspective, pp. 87–94 (2015)
- [16] Lusa, D.A., Santos Rabello, R., Cervi, C.R.: Open smart city view - An architecture for open government data manipulation and presentation at city level. In: International Conference WWW/Internet, pp. 119–126 (2015)
- [17] Afonso, R.A., Nascimento, C.H., Garcia, V.C., Alvaro, A.: SmartCluster: Using Public Data to Group Smart Cities by Domains. In: Annual Conference on Brazilian Symposium on Information Systems, Information Systems: A Computer Socio-Technical Perspective, pp. 699–702 (2015)
- [18] Sousa Oliveira, M.I., Gama, K.S., Loscio, B.F.: Waldo:Data Producers Registry and Discovery Service for Smart Cities Middleware. In: Annual Conference on Brazilian Symposium on Information Systems, Information Systems: A Computer Socio-Technical Perspective, pp. 71–78 (2015)
- [19] Cervantes, C., Poplade, D., Lima, M.N., Santos, A.L.: Detection of Sinkhole Attacks for Supporting Secure Routing on 6LoWPAN for Internet of Things. In: IFIP/IEEE International Symposium on Integrated Network Management, pp. 606–611 (2015). <https://doi.org/10.1109/INM.2015.7140344>
- [20] Corradi, A., Curatola, G., Foschini, L., Ianniello, R., Rolt, C.R.: Automatic Extraction of POIs in Smart Cities: Big Data Processing in ParticipAct. In: IFIP/IEEE International Symposium on Integrated Network Management, pp. 1059–1064 (2015). <https://doi.org/10.1109/INM.2015.7140433>
- [21] Silva Bezerra, R.M., Nascimento, F.M.S., Martins, J.S.B.: On computational infrastructure requirements to smart and autonomic cities framework. In: IEEE International Smart Cities Conference (2015). <https://doi.org/10.1109/ISC2.2015.7366194>
- [22] Corradi, A., Curatola, G., Foschini, L., Ianniello, R., Rolt, C.R.: Smartphones as smart cities sensors: MCS scheduling in the ParticipAct project. In: IEEE Symposium on Computers and Communications, pp. 222–228 (2015). <https://doi.org/10.1109/ISCC.2015.7405520>
- [23] Rolim, C.O., Moraes Rossetto, A.G., Leithardt, V.R.Q., Borges, G.A., Geyer, C.F.R., Santos, T.F.M., Souza, A.M.: A novel engine to underlie the data transmission of social urban sensing applications. In: IEEE Symposium on Computers and Communication, pp. 677–682 (2015). <https://doi.org/10.1109/ISCC.2015.7405520>

- [24] Monte Gomes Duarte, J., Cerqueira, E.C., Villas, L.A.: Indoor patient monitoring through Wi-Fi and mobile computing. In: International Conference on New Technologies, Mobility and Security, pp. 1–5 (2015). <https://doi.org/10.1109/NTMS.2015.7266497>
- [25] Fortes, M.Z., Ferreira, V.H., Souza Machado, I., Correia, W.F.: Harmonic analysis of distributed generation in Smart City Búzios project. In: IEEE Workshop on Power Electronics and Power Quality Applications, pp. 1–5 (2015). <https://doi.org/10.1109/PEPQA.2015.7168218>
- [26] Oliveira Bueno, A., Silva, J.C.A., Ferreira, V., Abib, J.C., Souza, C.K., Consiglieri, D.: Selfie cafe: socialization in public spaces. In: Annual ACM Symposium on Applied Computing, pp. 163–168 (2015). <https://doi.org/10.1145/2695664.2695824>
- [27] Afonso, R.A., Santos Brito, K., Nascimento, C.H., Garcia, V.C., Alvaro, A.: Brazilian smart cities: using a maturity model to measure and compare inequality in cities. In: Annual International Conference on Digital Government Research, pp. 230–238 (2015). <https://doi.org/10.1145/2757401.2757426>
- [28] Silva, C.A., Aquino Junior, G.S.: An Extensible Platform for the Transformation of Heterogeneous Data in Smart Cities. In: Brazilian Symposium on Multimedia and the Web, pp. 205–212 (2015). <https://doi.org/10.1145/2820426.2820433>
- [29] Santos, D.S., Nascimento Oliveira, B.R., Duran, A., Nakagawa, E.Y.: Reporting an experience on the establishment of a quality model for systems-of-systems. In: International Conference on Software Engineering and Knowledge Engineering, pp. 304–309 (2015). <https://doi.org/10.18293/SEKE2015-155>
- [30] Iano, Y., Junior, I.T.L., Loschi, H., Lustosa, T.C., Santos Mesquita, O., Moretti, A.: Sustainable computing and communications: Internet broadband network of things applied to intelligent education. In: International Conference on Smart Cities and Green ICT Systems, pp. 350–356 (2015). <https://doi.org/10.5220/0005447303500356>
- [31] Rolim, C.O., Moraes Rossetto, A.G., Leithardt, V.R.Q., Borges, G.A., Santos, T.F.M., Souza, A.M., Geyer, C.F.R.: Towards a novel engine to underlie the data transmission of social urban sensing applications. In: International Conference on Enterprise Information Systems, pp. 662–667 (2015). <https://doi.org/10.5220/0005457406620667>
- [32] Garcia, A., Camacho, C., Bellenzier, M., Pasquali, M., Weber, T., Silveira, M.S.: Data visualization in mobile applications: Investigating a smart city app. *Lecture Notes in Computer Science* **9732**, 285–293 (2016) https://doi.org/10.1007/978-3-319-39516-6_27

- [33] Oliveira Neto, J.S., Kofuji, S.T.: Inclusive smart city: An exploratory study. *Lecture Notes in Computer Science* **9738**, 456–465 (2016) https://doi.org/10.1007/978-3-319-40244-4_44
- [34] Silva, F.A., Boukerche, A., Moura Braga Silva, T.R., Aylon, L.B.R., Loureiro, A.A.F.: Geo-localized content availability in VANETs. *Ad Hoc Networks* **36**(2, SI), 425–434 (2016) <https://doi.org/10.1016/j.adhoc.2015.06.004>
- [35] Rolim, C.O., Moraes Rossetto, A.G., Leithardt, V.R.Q., Borges, G.A., Geyer, C.F.R., Santos, T.F.M., Souza, A.M.: Situation awareness and computational intelligence in opportunistic networks to support the data transmission of urban sensing applications. *Computer Networks* **111**(SI), 55–70 (2016) <https://doi.org/10.1016/j.comnet.2016.07.014>
- [36] Santos Montes, I.L., Pirmez, L., Costa Carmo, L.F.R., Figueiredo Pires, P., Delicato, F.C., Khan, S.U., Zomaya, A.Y.: A Decentralized Damage Detection System for Wireless Sensor and Actuator Networks. *IEEE Transactions on Computers* **65**(5), 1363–1376 (2016) <https://doi.org/10.1109/TC.2015.2479608>
- [37] Madeira, G., Guimaraes, T., Souza Mendes, L.: Assessing some models for city e-government implementation: A case study. *Electronic Government* **12**(1), 86–105 (2016) <https://doi.org/10.1504/EG.2016.074250>
- [38] Telles, M.J., Barbosa, J.L.V., Rosa Righi, R.: A computational model for accessibility in smart cities. In: *Brazilian Symposium on Information Systems: Information Systems in the Cloud Computing Era*, pp. 116–123 (2016)
- [39] Andrade, L.H., Sousa Pereira Amorim, B., Oliveira, M.G., Alves, A.L.F., Abrante, J.N.L., Leite, D.F.B., Rocha, J.H., Souza Baptista, C.: DeuZikaChico: The power of AGI to monitor and combat epidemics such as dengue, zika and chikungunya. In: *Brazilian Symposium on Information Systems: Information Systems in the Cloud Computing Era*, pp. 377–384 (2016)
- [40] Lira, E.R., Fynn, E., Silva Leite Coelho, P.R., Faina, L.F., Camargos, L.J., Villça, R., Pasquini, R.: An Architecture for Traffic Sign Management in Smart Cities. In: *IEEE International Conference on Advanced Information Networking and Applications*, pp. 580–587 (2016). <https://doi.org/10.1109/AINA.2016.40>
- [41] Barbosa, S.A.A., Júnior, G.L., Oliveira, A.S., Jesus, T.O., Macedo, D.D.J., Nascimento, R.P.C.: An Architecture Proposal for the Creation of a Database to Open Data related to ITS in Smart Cities. In: *Euro-American Conference on Telematics and Information Systems*, pp. 1–7 (2016). <https://doi.org/10.1109/EATIS.2016.7520113>
- [42] Barroso, B.L.K., Oliveira, R.R., Macedo, E.T.: Mobile crowdsourcing App for smart cities. In: *Euro-American Conference on Telematics and Information Systems* (2016). <https://doi.org/10.1109/EATIS.2016.7520143>

- [43] Melo, F.S., Silva, J.L.M., Macedo, H.T.: Flood Monitoring in Smart Cities Based on Fuzzy Logic about Urban Open Data. In: Euro-American Conference on Telematics and Information Systems (2016). <https://doi.org/10.1109/EATIS.2016.7520161>
- [44] Lacerda, T., Fernandes, S.: Scalable Real-Time Flock Detection. In: IEEE Global Communications Conference, pp. 1–7 (2016). <https://doi.org/10.1109/GLOCOM.2016.7842241>
- [45] Santos, C.B., Silva Marques, F., Pereira, J.B.J., Araújo, S.G.: Traffic analysis for smart grid networks using Markov chains with autocorrelation function settings. In: International Conference on Advances in Computing, Communications and Informatics, pp. 1376–1382 (2016). <https://doi.org/10.1109/ICACCI.2016.7732240>
- [46] Silva Machado, K.L., Boukerche, A., Melo, P.O.S.V.D., Cerqueira, E.C., Loureiro, A.A.F.: Exploring seasonal human behavior in opportunistic mobile networks. In: IEEE International Conference on Communications, pp. 1–6 (2016). <https://doi.org/10.1109/ICC.2016.7510710>
- [47] Montanha, A., Escalona, M.J., Mayo, F.J.D., Polidorio, A.M.: A technological innovation to safely aid in the spatial orientation of blind people in a complex urban environment. In: International Conference on Image, Vision and Computing, pp. 102–107 (2016). <https://doi.org/10.1109/ICIVC.2016.7571281>
- [48] Mendonça, M., Moreira, B., Coelho, J., Cacho, N.A.A., Silva Lopes, F.A., Sousa Cavalcante, E.R., Dias, A., Ribeiro, J.L.S., Loiola, E., Estaregue, D., Moura, B.: Improving public safety at fingertips: A smart city experience. In: IEEE International Smart Cities Conference, pp. 1–6 (2016). <https://doi.org/10.1109/ISC2.2016.7580772>
- [49] Cacho, N.A.A., Silva Lopes, F.A., Sousa Cavalcante, E.R., Santos, I.: A smart city initiative: The case of Natal. In: IEEE International Smart Cities Conference, pp. 1–7 (2016). <https://doi.org/10.1109/ISC2.2016.7580774>
- [50] Gama Schroder Filho, H., Filho, J.P., Moreli, V.L.: The adequacy of LoRaWAN on smart grids: A comparison with RF mesh technology. In: IEEE International Smart Cities Conference, pp. 1–6 (2016). <https://doi.org/10.1109/ISC2.2016.7580783>
- [51] Ram, S., Dong, F., Currim, F., Wang, Y., Dantas, E., Sabóia, L.A.: SMART-BIKE: Policy making and decision support for bike share systems. In: IEEE International Smart Cities Conference, pp. 1–6 (2016). <https://doi.org/10.1109/ISC2.2016.7580838>
- [52] Wang, Y., Ram, S., Currim, F., Dantas, E., Sabóia, L.A.: A big data approach for smart transportation management on bus network. In: IEEE International Smart

Cities Conference, pp. 1–6 (2016). <https://doi.org/10.1109/ISC2.2016.7580839>

- [53] Souza, A.E.C., Figueredo, M.R.C., Cacho, N.A.A., Araújo, D.S.A., Coelho, J., Prolo, C.A.: Social smart city: A platform to analyze social streams in smart city initiatives. In: IEEE International Smart Cities Conference, pp. 1–6 (2016). <https://doi.org/10.1109/ISC2.2016.7580848>
- [54] Cortellazzi, J., Foschini, L., Rolt, C.R., Corradi, A., Neto, C.A.A., Alperstedt, G.D.: Crowdsensing and proximity services for impaired mobility. In: IEEE Symposium on Computers and Communication, pp. 44–49 (2016). <https://doi.org/10.1109/ISCC.2016.7543712>
- [55] Cruz, P., Neto, J.B.P., Campista, M.E.M., Costa, L.H.M.K.: On the accuracy of data sensing in the presence of mobility. In: International Conference on the Network of the Future, pp. 1–5 (2016). <https://doi.org/10.1109/NOF.2016.7810113>
- [56] Rostirolla, G., Rosa Righi, R., Costa, C.A., Barbosa, J.L.V.: Towards a multi-level energy saving model for smart cities. In: International Conference of the Chilean Computer Science Society, pp. 1–12 (2016). <https://doi.org/10.1109/SCCC.2016.7836037>
- [57] Souza, A.M., Boukerche, A., Maia, G., Cerqueira, E.C., Loureiro, A.A.F., Villas, L.A.: SPARTAN: A Solution to Prevent Traffic Jam with Real-Time Alert and Re-Routing for Smart City. In: IEEE Vehicular Technology Conference, pp. 1–5 (2016). <https://doi.org/10.1109/VTCSFall.2016.7881230>
- [58] Gomes, E.H.A., Dantas, M.A.R., Macedo, D.D.J., Rolt, C.R., Brocardo, M.L., Foschini, L.: Towards an Infrastructure to Support Big Data for a Smart City Project. In: IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises, pp. 107–112 (2016). <https://doi.org/10.1109/WETICE.2016.31>
- [59] Amah, T.E., Kamat, M., Bakar, K.A., Moreira, W., Oliveira Júnior, A.C., Batista, M.A.: Spatial locality in pocket switched networks. In: IEEE International Symposium on A World of Wireless, Mobile and Multimedia Networks, pp. 1–6 (2016). <https://doi.org/10.1109/WoWMoM.2016.7523583>
- [60] Oliveira Bueno, A.: From Smart Cities to Social Cities: Technology to Support Community Life. In: CHI Conference Extended Abstracts on Human Factors in Computing Systems, pp. 198–202 (2016). <https://doi.org/10.1145/2851581.2859020>
- [61] Ram, S., Wang, Y., Currim, F., Dong, F., Dantas, E., Sabóia, L.A.: SMART-BUS: A Web Application for Smart Urban Mobility and Transportation. In: International Conference Companion on World Wide Web, pp. 363–368 (2016). <https://doi.org/10.1145/2872518.2888613>

- [62] Silva Lopes, F.A., Loss, S.M., Mendes, A., Batista, T.V., Lea, R.: SoS-centric Middleware Services for Interoperability in Smart Cities Systems. In: International Workshop on Smart (2016). <https://doi.org/10.1145/3009912.3009917>
- [63] Carvalho, L.P., Peruzza, B.P.M., Santos, F., Ferreira, L.P., Freire, A.P.: Accessible smart cities? Inspecting the accessibility of Brazilian municipalities' mobile applications. In: Brazilian Symposium on Human Factors in Computing Systems (2016). <https://doi.org/10.1145/3033701.3033718>
- [64] Diniz, H.B.M., Silva, E.C.G.F., Nogueira, T.C.C., Gama, K.S.: A Reference Architecture for Mobile Crowdsensing Platforms. In: International Conference on Enterprise Information Systems, pp. 600–607 (2016). <https://doi.org/10.5220/0005837606000607>
- [65] Kozevitch, N.P., Júnior, L.C.G., Gadda, T.M.C., Fonseca, K.V.O., Akbar, M.: Analyzing the acoustic urban environment : A geofencing-centered approach in the curitiba metropolitan region, Brazil. In: International Conference on Smart Cities and Green ICT Systems, pp. 78–85 (2016). <https://doi.org/10.5220/0005840500780085>
- [66] Kozevitch, N.P., Almeida, L.D.A., Silva, R.D., Minetto, R.: An alternative and smarter route planner for wheelchair users exploring open data. In: International Conference on Smart Cities and Green ICT Systems, pp. 94–99 (2016). <https://doi.org/10.5220/0005878800940099>
- [67] Santos, H., Dantas, V., Furtado, V., Silva, P.P., McGuinness, D.L.: From data to city indicators: A knowledge graph for supporting automatic generation of dashboards. *Lecture Notes in Computer Science* **10250 LNCS**, 94–108 (2017) https://doi.org/10.1007/978-3-319-58451-5_7
- [68] Kozevitch, N.P., Almeida, L.D.A., Silva, R.D., Minetto, R.: A Smarter sidewalk-based route planner for wheelchair users: An approach with open data. *Communications in Computer and Information Science* **738**, 192–206 (2017) https://doi.org/10.1007/978-3-319-63712-9_11
- [69] Ramirez, A.R.G., González-Carrasco, I., Jasper, G.H., Lopez, A.L., López-Cuadrado, J.L., García-Crespo, A.: Towards Human Smart Cities: Internet of Things for sensory impaired individuals. *Computing* **99**(1), 107–126 (2017) <https://doi.org/10.1007/s00607-016-0529-2>
- [70] Wyant, R.S., Nedjah, N., Mourelle, L.M.: Efficient biometric palm-print matching on smart-cards for high security and privacy. *Multimedia Tools and Applications* **76**(21), 22671–22701 (2017) <https://doi.org/10.1007/s11042-016-4271-8>
- [71] Kozevitch, N.P., Silva, T.H., Ziviani, A., Costa, G., Lugo, G.: Three Decades of Business Activity Evolution in Curitiba: A Case Study. *Annals of Data Science* **4**(3), 307–327 (2017) <https://doi.org/10.1007/s40745-017-0104-5>

- [72] Ueyama, J., Faical, B.S., Alves, L.Y.M., Bayer, G., Pessin, G., Gomes, P.H.: Enhancing reliability in Wireless Sensor Networks for adaptive river monitoring systems: Reflections on their long-term deployment in Brazil. *Computers, Environment and Urban Systems* **65**, 41–52 (2017) <https://doi.org/10.1016/j.compenvurbsys.2017.05.001>
- [73] Peixoto, J.P.J., Costa, D.G.: Wireless visual sensor networks for smart city applications: A relevance-based approach for multiple sinks mobility. *Future Generation Computer Systems* **76**, 51–62 (2017) <https://doi.org/10.1016/j.future.2017.05.027>
- [74] Ramirez, W., Souza, V.B.C., Marin-Tordera, E., Sanchez, S.: Exploring potential implementations of PCE in IoT world. *Optical Switching and Networking* **26**(SI), 48–59 (2017) <https://doi.org/10.1016/j.osn.2015.10.001>
- [75] Amah, T.E., Kamat, M., Bakar, K.A., Rahman, S.O.A., Mohammed, M.H., Abali, A.M., Junior, W.A.M., Oliveira Júnior, A.C.: Collecting Sensed Data with Opportunistic Networks: The Case of Contact Information Overhead. *Information (Switzerland)* **8**(3) (2017) <https://doi.org/10.3390/info8030108>
- [76] Amah, T.E., Kamat, M., Bakar, K.A., Rahman, S.O.A., Mohammed, M.H., Abali, A.M., Junior, W.A.M., Oliveira Júnior, A.C.: The Impact of Message Replication on the Performance of Opportunistic Networks for Sensed Data Collection. *Information (Switzerland)* **8**(4) (2017) <https://doi.org/10.3390/info8040143>
- [77] Amah, T.E., Kamat, M., Bakar, K.A., Abali, A.M., Junior, W.A.M., Oliveira Júnior, A.C.: Addressing the Issue of Routing Unfairness in Opportunistic Backhaul Networks for Collecting Sensed Data. *Journal Of Sensor and Actuator Networks* **6**(4) (2017) <https://doi.org/10.3390/jsan6040031>
- [78] Costa, D.G., Collotta, M., Pau, G., Duran-Faundez, C.: A fuzzy-based approach for sensing, coding and transmission configuration of visual sensors in smart city applications. *Sensors* **17**(1) (2017) <https://doi.org/10.3390/s17010093>
- [79] Furtado, V., Furtado, E., Caminha, C., Lopes, A., Dantas, V., Ponte, C., Cavalcante, S.: A Data-Driven Approach to Help Understanding the Preferences of Public Transport Users. In: *IEEE International Conference on Big Data*, pp. 1926–1935 (2017). <https://doi.org/10.1109/BigData.2017.8258138>
- [80] Araujo, A., Kalebe, R., Girão, G., Filho, I., Gonçalves, K., Neto, B.: Reliability Analysis of an IoT-Based Smart Parking Application for Smart Cities. In: *IEEE International Conference on Big Data*, pp. 4086–4091 (2017). <https://doi.org/10.1109/BigData.2017.8258426>
- [81] Fioravanti, A.R., Marecek, J., Shorten, R.N., Souza, M., Wirth, F.R.: On classical control and smart cities. In: *IEEE Annual Conference on Decision and*

- Control, pp. 1413–1420 (2017). <https://doi.org/10.1109/CDC.2017.8263852>
- [82] Melo, D.D.F., Lage, E.D.S., Rocha, A.V., Jesus Cardoso Filho, B.: Improving the consumption and water heating efficiency in smart buildings. In: International Conference and Expo on Emerging Technologies for a Smarter World, pp. 1–6 (2017). <https://doi.org/10.1109/CEWIT.2017.8263304>
 - [83] Rapacki, R.C., Wives, L.K., Galante, R.: KANDOR-Knowledge Analysis of Neighborhood Dynamics and Online Relationships. In: IEEE Annual Computers, Software, and Applications Conference, pp. 816–821 (2017). <https://doi.org/10.1109/COMPSAC.2017.160>
 - [84] Gama, K.S.: Preliminary Findings on Software Engineering Practices in Civic Hackathons. In: International Workshop on CrowdSourcing in Software Engineering, pp. 14–20 (2017). <https://doi.org/10.1109/CSI-SE.2017.5>
 - [85] Velasquez, K., Abreu, D.P., Gonçalves, D.M., Bittencourt, L.F., Curado, M., Monteiro, E., Madeira, E.R.M.: Service Orchestration in Fog Environments. In: IEEE International Conference on Future Internet of Things and Cloud, pp. 329–336 (2017). <https://doi.org/10.1109/FiCloud.2017.49>
 - [86] Monteiro, J., Granada, R., Barros, R.C., Meneguzzi, F.: Deep neural networks for kitchen activity recognition. In: International Joint Conference on Neural Networks, pp. 2048–2055 (2017). <https://doi.org/10.1109/IJCNN.2017.7966102>
 - [87] Borges, M.A., Lopes, P.B., Silva, L.A., Oliveira Igarashi, M., Correia, G.M.F.: An Architecture for the Internet of Things and the Use of Big Data Techniques in the Analysis of Carbon Monoxide. In: IEEE International Conference on Information Reuse and Integration, pp. 184–191 (2017). <https://doi.org/10.1109/IRI.2017.76>
 - [88] Junior, A.A., Cacho, N.A.A., Thome, A.C., Medeiros, A., Melo Borges, J.C.: A predictive policing application to support patrol planning in smart cities. In: International Smart Cities Conference, pp. 1–6 (2017). <https://doi.org/10.1109/ISC2.2017.8090817>
 - [89] Moreira, B., Cacho, N.A.A., Silva Lopes, F.A., Sousa Cavalcante, E.R.: Towards civic engagement in smart public security. In: International Smart Cities Conference, pp. 1–6 (2017). <https://doi.org/10.1109/ISC2.2017.8090818>
 - [90] Souza, A.E.C., Pereira, J., Oliveira, J., Trindade, C., Sousa Cavalcante, E.R., Cacho, N.A.A., Batista, T.V., Silva Lopes, F.A.: A data integration approach for smart cities: The case of natal. In: International Smart Cities Conference, pp. 1–6 (2017). <https://doi.org/10.1109/ISC2.2017.8090820>
 - [91] Pereira, J.F., Pasquali, A., Saleiro, P., Rossetti, R.J.F., Cacho, N.A.A.: Characterizing geo-located tweets in brazilian megacities. In: International Smart Cities

- Conference, pp. 1–6 (2017). <https://doi.org/10.1109/ISC2.2017.8090832>
- [92] Ramalho, M.A., Rossetti, R.J.F., Cacho, N.A.A.: Towards an architecture for smart garbage collection in urban settings. In: International Smart Cities Conference, pp. 1–6 (2017). <https://doi.org/10.1109/ISC2.2017.8090833>
 - [93] Omidvar-Tehrani, B., Souza Neto, P.A., Pontes, F.M.F., Silva Júnior, F.B.: GeoGuide: An Interactive Guidance Approach for Spatial Data. In: IEEE International Conference on Internet of Things, IEEE Green Computing and Communications, IEEE Cyber, Physical and Social Computing, IEEE Smart Data, pp. 1112–1117 (2017). <https://doi.org/10.1109/iThings-GreenCom-CPSCoM-SmartData.2017.170>
 - [94] D’Orazio, L., Halfeld-Ferrari, M., Hara, C.S., Kozievitch, N.P., Musicante, M.A.: Graph Constraints in Urban Computing: Dealing with Conditions in Processing Urban Data. In: IEEE International Conference on Internet of Things, IEEE Green Computing and Communications, IEEE Cyber, Physical and Social Computing, IEEE Smart Data, pp. 1118–1124 (2017). <https://doi.org/10.1109/iThings-GreenCom-CPSCoM-SmartData.2017.171>
 - [95] Melo, A.B., Oliveira, A.M., Souza, D.S., Cunha, M.J.: Optimization of Garbage Collection Using Genetic Algorithm. In: IEEE International Conference on Mobile Ad Hoc and Sensor Systems, pp. 672–677 (2017). <https://doi.org/10.1109/MASS.2017.57>
 - [96] Carmo, M.S., Jardim, S., Neto, A.J.V., Aguiar, R., Corujo, D.: Towards fog-based slice-defined WLAN infrastructures to cope with future 5G use cases. In: IEEE International Symposium on Network Computing and Applications, pp. 1–5 (2017). <https://doi.org/10.1109/NCA.2017.8171397>
 - [97] Batista, D.M., Goldman, A., Júnior, R.H., Kon, F., Costa, F.M., Endler, M.: InterSCity: Addressing Future Internet research challenges for Smart Cities. In: International Conference on the Network of the Future (2017). <https://doi.org/10.1109/NOF.2016.7810114>
 - [98] Dantas, F.C., Dantas, J.B.D., Taveiros, F.E.V., Pinheiro, R.A.L., Junior, S.C.L., Lima, L.F., Carvalho, Z.V.: Remotely Piloted Aircrafts Toward Smart Cities. In: IEEE Summer School on Smart Cities, pp. 91–96 (2017). <https://doi.org/10.1109/S3C.2017.8501372>
 - [99] Fátima Pereira Marquesone, R., Brito Carvalho, T.C.M., Guimarães, L.B., Dias, E.M.: A FIWARE-Based Component for Data Analysis in Smart Mobility Context. In: IEEE Summer School on Smart Cities, pp. 25–30 (2017). <https://doi.org/10.1109/S3C.2017.8501373>
 - [100] Araujo, A., Kalebe, R., Girão, G., Filho, I., Goncalves, K., Melo, A., Neto, B.: IoT-Based Smart Parking for Smart Cities. In: IEEE Summer School on Smart

- Cities, pp. 31–36 (2017). <https://doi.org/10.1109/S3C.2017.8501376>
- [101] Oliveira, J., Lemos, J., Vieira, E., Silva, I.M.D., Abrantes, J., Barros, D., Costa, D.G.: CO2 Catcher: A Platform for Monitoring of Vehicular Pollution in Smart Cities. In: IEEE Summer School on Smart Cities, pp. 37–42 (2017). <https://doi.org/10.1109/S3C.2017.8501380>
 - [102] Vilaza, G.N., Velloso, E.N.: Finding the Sweet Spot: Public Displays for Advertising on Campus. In: IEEE Summer School on Smart Cities, pp. 108–113 (2017). <https://doi.org/10.1109/S3C.2017.8501382>
 - [103] Cruz, M.A.A., Rodrigues, J.J.P.C., Saleem, K., Aquino, A.L.L.: Towards Ranking IoT Middleware Platforms Based on Quantitative and Qualitative Metrics. In: IEEE Summer School on Smart Cities, pp. 67–72 (2017). <https://doi.org/10.1109/S3C.2017.8501385>
 - [104] Silva Medeiros, G.V., Santos, M.R., Lopes, A.S.B., Neto, E.B.C.: Smartgas: a smart platform for cooking gas monitoring. In: IEEE Summer School on Smart Cities, pp. 97–102 (2017). <https://doi.org/10.1109/S3C.2017.8501387>
 - [105] Viana, J.D.F., Neto, G.V.A., Galdino, I.M., Oliveira Neto, A.M., Braga, R.B., Oliveira, C.T.: A visualization and analysis approach of cyclist data obtained through sensors. In: IEEE Summer School on Smart Cities, pp. 13–18 (2017). <https://doi.org/10.1109/S3C.2017.8501389>
 - [106] Aguilar, J.F.A., Souza Mendes, L.: Conceptual theoretical approach about smart cities. In: IEEE Summer School on Smart Cities, pp. 132–136 (2017). <https://doi.org/10.1109/S3C.2017.8501392>
 - [107] Sobral, J.V.V., Rodrigues, J.J.P.C., Neto, A.J.V.: Performance Assessment of the LOADng Routing Protocol in Smart City Scenarios. In: IEEE Summer School on Smart Cities, pp. 49–54 (2017). <https://doi.org/10.1109/S3C.2017.8501394>
 - [108] Greati, V.R., Ribeiro, V.C.T., Silva, I.M.D., Medeiros Martins, A.: A Brazilian License Plate Recognition Method for Applications in Smart Cities. In: IEEE Summer School on Smart Cities, pp. 43–48 (2017). <https://doi.org/10.1109/S3C.2017.8501395>
 - [109] Gomes, R.L., Martinello, M., Dominicini, C.K., Hasse, P., Villaça, R., Vassallo, R.F., Carmo, A.P., Queiroz Researcher, F.M., Picoreti, R., Garcia, A.S., Ribeiro, M.R.N., Espin, J.A.G., Hammad, A., Nejabati, R., Simeonidou, D.: How can emerging applications benefit from EaaS in open programmable infrastructures? In: IEEE Summer School on Smart Cities, pp. 73–78 (2017). <https://doi.org/10.1109/S3C.2017.8501404>
 - [110] Aguilar, J.F.A., Souza Mendes, L.: Smart Urban Mobility: Conceptual analysis

- for proposal model. In: IEEE Summer School on Smart Cities, pp. 1–6 (2017). <https://doi.org/10.1109/S3C.2017.8501406>
- [111] Macedo, J., Cacho, N.A.A., Silva Lopes, F.A.: A Comparative Study of Tools for Smart Cities Open Data Publication and Management. In: IEEE Summer School on Smart Cities, pp. 79–84 (2017). <https://doi.org/10.1109/S3C.2017.8501408>
 - [112] Gaffo, F.H., Brigano, G.U., Gomede, E., Barros, R.M., Souza Mendes, L.: Edukas environment: Towards an integrated dashboard for education management in smart cities. In: IEEE SmartWorld Ubiquitous Intelligence and Computing, Advanced and Trusted Computed, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People and Smart City Innovation, pp. 1–8 (2017). <https://doi.org/10.1109/UIC-ATC.2017.8397535>
 - [113] Gama, K.S.: Civic apps competitions: Preliminary findings on the longevity and quality of their outcomes. In: IEEE SmartWorld Ubiquitous Intelligence and Computing, Advanced and Trusted Computed, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People and Smart City Innovation, pp. 1–8 (2017). <https://doi.org/10.1109/UIC-ATC.2017.8397568>
 - [114] Quadri, S.M., Prashanth, T.K., Pongpaichet, S., Esmin, A.A.A., Jain, R.C.: TargetZIKA: Epidemic Situation Detection and Risk Preparedness for ZIKA Virus. In: International Conference on UBI-Media Computing, pp. 229–234 (2017). <https://doi.org/10.1109/UMEDIA.2017.8074107>
 - [115] Carmo, M.S., Jardim, S., Souza, T., Neto, A.J.V., Aguiar, R., Corujo, D.: Towards enhanced connectivity through WLAN slicing. In: Wireless Telecommunications Symposium, pp. 1–7 (2017). <https://doi.org/10.1109/WTS.2017.7943550>
 - [116] Barcelos, M., Bernardini, F.C., Barcelos, A., Silva, G.V.: City Ranking Based on Financial Flux Indicator Clustering. In: Annual International Conference on Digital Government Research, pp. 452–460 (2017). <https://doi.org/10.1145/3085228.3085288>
 - [117] Araújo, T.B., Cappiello, C., Kozievitch, N.P., Mestre, D.G., Pires, C.E.S., Vitali, M.: Towards Reliable Data Analyses for Smart Cities. In: International Database Engineering and Applications Symposium, pp. 304–308 (2017). <https://doi.org/10.1145/3105831.3105834>
 - [118] Rodrigues, D.O., Boukerche, A., Silva, T.H., Loureiro, A.A.F., Villas, L.A.: SMAFramework: Urban Data Integration Framework for Mobility Analysis in Smart Cities. In: ACM International Conference on Modelling, Analysis and Simulation of Wireless and Mobile Systems, pp. 227–236 (2017). <https://doi.org/10.1145/3127540.3127569>

- [119] Sousa Cavalcante, E.R., Cacho, N.A.A., Silva Lopes, F.A., Batista, T.V.: Challenges to the Development of Smart City Systems: A System-of-Systems View. In: Brazilian Symposium on Software Engineering, pp. 244–249 (2017). <https://doi.org/10.1145/3131151.3131189>
- [120] Carrero, M.A., Musicante, M.A., Santos, A.L., Hara, C.S.: A Reusable Component-Based Model for WSN Storage Simulation. In: ACM Symposium on QoS and Security for Wireless and Mobile Networks, pp. 31–38 (2017). <https://doi.org/10.1145/3132114.3132118>
- [121] Harrington, J., Lacroix, J., El-Khatib, K., Lobo, F.L., Oliveira, H.A.B.F.: Proactive Certificate Distribution for PKI in VANET. In: ACM Symposium on QoS and Security for Wireless and Mobile Networks, pp. 9–13 (2017). <https://doi.org/10.1145/3132114.3132730>
- [122] Carvalho, O., Roloff, E., Navaux, P.O.A.: A Distributed Stream Processing based Architecture for IoT Smart Grids Monitoring. In: International Conference on Utility and Cloud Computing, pp. 9–14 (2017). <https://doi.org/10.1145/3147234.3148105>
- [123] Hasse, D., Rolt, C.R.: COLLEGA semantic middleware for collaborative assistance in mobile social networks. In: AEIT International Annual Conference, pp. 1–6 (2017). <https://doi.org/10.23919/AEIT.2017.8240553>
- [124] Rabelo, A.C.S., Oliveira, I.L., Filho, J.L.: An architectural model for intelligent cities using collaborative spatial data infrastructures. In: International Conference on Smart Cities and Green ICT Systems, pp. 242–249 (2017). <https://doi.org/10.5220/0006306102420249>
- [125] Moura Del Esposte, A., Kon, F., Costa, F.M., Lago, N.P.: InterSCity: A scalable microservice-based open source platform for smart cities. In: International Conference on Smart Cities and Green ICT Systems, pp. 35–46 (2017). <https://doi.org/10.5220/0006306200350046>
- [126] Junior, C.S.S.G., Henriques, R.V.B., Pereira, C.E., Silva Silveira, W.: Proposal IoT architecture for macro and microscale applied in assistive technology. *Lecture Notes in Networks and Systems* **22**, 36–43 (2018) https://doi.org/10.1007/978-3-319-64352-6_4
- [127] Aljawarneh, I.M., Bellavista, P., Rolt, C.R., Foschini, L.: Dynamic identification of participatory mobile health communities. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering* **189**, 208–217 (2018) https://doi.org/10.1007/978-3-319-67636-4_22
- [128] Vanelli, B., Pinto, A.S.R., Silva, M.P., Dantas, M.A.R., Fazio, M., Celesti, A., Villari, M.: IoT data storage in the cloud: A case study in human biometeorology. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and*

Telecommunications Engineering **189**, 253–262 (2018) https://doi.org/10.1007/978-3-319-67636-4_26

- [129] Carvalho, O., Garcia, M., Roloff, E., Carreño, E.D., Navaux, P.O.A.: IoT workload distribution impact between edge and cloud computing in a smart grid application. *Communications in Computer and Information Science* **796**, 203–217 (2018) https://doi.org/10.1007/978-3-319-73353-1_14
- [130] Santana, E.F.Z., Lago, N.P., Kon, F., Milojicic, D.S.: InterSCSimulator: Large-scale traffic simulation in smart cities using erlang. *Lecture Notes in Computer Science* **10798 LNAI**, 211–227 (2018) https://doi.org/10.1007/978-3-319-91587-6_15
- [131] Rodrigues, D.O., Boukerche, A., Silva, T.H., Loureiro, A.A.F., Villas, L.A.: Combining taxi and social media data to explore urban mobility issues. *Computer Communications* **132**, 111–125 (2018) <https://doi.org/10.1016/j.comcom.2018.10.004>
- [132] Kunst, R., Avila, L., Pignaton, E., Bampi, S., Rochol, J.: Improving network resources allocation in smart cities video surveillance. *Computer Networks* **134**, 228–244 (2018) <https://doi.org/10.1016/j.comnet.2018.01.042>
- [133] Albadarneh, J., Jararweh, Y., Al-Ayyoub, M., Reis Fontes, R., Al-Smadi, M., Rothenberg, C.R.E.: Cooperative mobile edge computing system for VANET-based software-defined content delivery. *Computers and Electrical Engineering* **71**, 388–397 (2018) <https://doi.org/10.1016/j.compeleceng.2018.07.021>
- [134] Brentan, B., Meirelles, G., Júnior, E.L., Izquierdo, J.: Hybrid SOM+k-Means clustering to improve planning, operation and management in water distribution systems. *Environmental Modelling and Software* **106**, 77–88 (2018) <https://doi.org/10.1016/j.envsoft.2018.02.013>
- [135] Flores, C.C., Rezende, D.A.: Twitter information for contributing to the strategic digital city: Towards citizens as co-managers. *Telematics and Informatics* **35**(5), 1082–1096 (2018) <https://doi.org/10.1016/j.tele.2018.01.005>
- [136] Souza Dias, D., Costa, L.H.M.K., Amorim, M.D.: Data offloading capacity in a megalopolis using taxis and buses as data carriers. *Vehicular Communications* **14**, 80–96 (2018) <https://doi.org/10.1016/j.vehcom.2018.10.002>
- [137] Vieira, D.I., Alvaro, A.: A centralized platform of open government data as support to applications in the smart cities context. *International Journal Of Web Information Systems* **14**(1), 2–28 (2018) <https://doi.org/10.1108/IJWIS-05-2017-0045>
- [138] Libório, M.P., Coelho, T.M.M., Bernardes, P., Machado, A.M.C., Ekel, P.Y., Soares, G.L.: Forecasting Internet Demand Using Public Data: A Case Study in

- Brazil. *IEEE Access* **6**, 65974–65980 (2018) <https://doi.org/10.1109/ACCESS.2018.2878130>
- [139] Kamienski, C.A., Borelli, F.F., Biondi, G.O., Pinheiro, I., Zyrianoff, I.D.R., Jentsch, M.: Context Design and Tracking for IoT-Based Energy Management in Smart Cities. *IEEE Internet of Things Journal* **5**(2, SI), 687–695 (2018) <https://doi.org/10.1109/JIOT.2017.2748037>
 - [140] Anjomshoa, A., Duarte, F., Rennings, D., Matarazzo, T., deSouza, P., Ratti, C.: City Scanner: Building and Scheduling a Mobile Sensing Platform for Smart City Services. *IEEE Internet of Things Journal* **5**(6), 4567–4579 (2018) <https://doi.org/10.1109/JIOT.2018.2839058>
 - [141] Cruz, P., Silva, F.F., Pacheco, R.G., Souza Couto, R., Velloso, P.B., Campista, M.E.M., Costa, L.H.M.K.: SensingBus: Using Bus Lines and Fog Computing for Smart Sensing the City. *IEEE Cloud Computing* **5**(5), 58–69 (2018) <https://doi.org/10.1109/MCC.2018.053711667>
 - [142] Bergamini, C., Bosi, F., Corradi, A., Rolt, C.R., Foschini, L., Monti, S., Seralessandri, M.: LocalFocus: A Big Data Service Platform for Local Communities and Smarter Cities. *IEEE Communications Magazine* **56**(7), 116–123 (2018) <https://doi.org/10.1109/MCOM.2018.1700597>
 - [143] Almeida, V.A.F., Doneda, D., Costa, E.M.: Humane smart cities: The need for governance. *IEEE Internet Computing* **22**(2), 91–95 (2018) <https://doi.org/10.1109/MIC.2018.022021671>
 - [144] Dias, F.C.A., Cacho, N.A.A.: A Platform for Measuring e-Participation in Smart Cities: A Case Study with Brazilian Capitals. *IEEE Latin America Transactions* **16**(2), 542–548 (2018) <https://doi.org/10.1109/TLA.2018.8327411>
 - [145] Rostirolla, G., Rosa Righi, R., Barbosa, J.L.V., Costa, C.A.: ElCity: An Elastic Multilevel Energy Saving Model for Smart Cities. *IEEE Transactions On Sustainable Computing* **3**(1), 30–43 (2018) <https://doi.org/10.1109/TSUSC.2017.2749880>
 - [146] Silva, F.A., Domingues, A.C.S.A., Moura Braga Silva, T.R.: Discovering Mobile Application Usage Patterns from a Large-Scale Dataset. *ACM Transactions On Knowledge Discovery From Data* **12**(5) (2018) <https://doi.org/10.1145/3209669>
 - [147] Gomes, E.H.A., Dantas, M.A.R., Macedo, D.D.J., Rolt, C.R., Silva Dias, J., Foschini, L.: An infrastructure model for smart cities based on big data. *International Journal of Grid and Utility Computing* **9**(4), 322–332 (2018) <https://doi.org/10.1504/IJGUC.2018.095435>
 - [148] Gomede, E., Gaffo, F.H., Briganó, G.U., Barros, R.M., Souza Mendes, L.: Application of computational intelligence to improve education in smart cities. *Sensors*

18(1) (2018) <https://doi.org/10.3390/s18010267>

- [149] Costa, D.G., Duran-Faundez, C., Andrade, D.C., Rocha Junior, J.B., Peixoto, J.P.J.: TwitterSensing: An event-based approach for wireless sensor networks optimization exploiting social media in smart city applications. *Sensors* **18**(4) (2018) <https://doi.org/10.3390/s18041080>
- [150] Caminha, P.H.C., Souza Couto, R., Costa, L.H.M.K., Fladenmuller, A., Amorim, M.D.: On the coverage of bus-based mobile sensing. *Sensors* **18**(6) (2018) <https://doi.org/10.3390/s18061976>
- [151] Taques, R.M., Tacla, C.A., Belizario, M.G., Berardi, R.C.G.: An ontology to describe indicators of environmental pollution for the use of applications. In: *CEUR Workshop Proceedings*, pp. 197–208 (2018)
- [152] Bichibichi, Y.S., Kozevitch, N.P., Silva, R.D., Ziviani, A.: Business activity clustering: A use case in Curitiba. In: *CEUR Workshop Proceedings*, pp. 41–48 (2018)
- [153] Martins, G., Araujo, M.V.M., França, T.C., Farias, C.M.: Heimdall: A platform to empower common IoT services into a smart ecosystem. In: *CEUR Workshop Proceedings* (2018)
- [154] Campos, R., Santos, R.P., Oliveira, J.: Using multilayer social networks in an analysis of higher education for professional demand. In: *CEUR Workshop Proceedings* (2018)
- [155] Lima Pinto, E.M., Lachowski, R., Pellenz, M.E., Oliveira Penna Neto, M.C., Souza, R.D.: A Machine Learning Approach for Detecting Spoofing Attacks in Wireless Sensor Networks. In: *IEEE International Conference on Advanced Information Networking and Applications*, pp. 752–758 (2018). <https://doi.org/10.1109/AINA.2018.00113>
- [156] Nascimento, N., Alencar, P., Lucena, C.J.P., Cowan, D.: An IoT Analytics Embodied Agent Model based on Context-Aware Machine Learning. In: *IEEE International Conference on Big Data*, pp. 5170–5175 (2018). <https://doi.org/10.1109/BigData.2018.8622515>
- [157] Lemos, L.L., Bazzan, A.L.C., Pasin, M.: Co-Adaptive Reinforcement Learning in Microscopic Traffic Systems. In: *IEEE Congress on Evolutionary Computation*, pp. 1–8 (2018). <https://doi.org/10.1109/CEC.2018.8477713>
- [158] Hernandez, S.C.L., Pellenz, M.E., Calsavara, A.: An architecture of fog computing in smart cities: The middleware e2bs in emergency calls. In: *Latin American Computing Conference*, pp. 509–518 (2018). <https://doi.org/10.1109/CLEI.2018.00067>

- [159] Barros Barreto, A., Santos, R.A.T., Souza, P.E.U.D., Abrunhosa, M., Dominice, A., Junior, J.D.D.S.: Smart-Grid Assets Inspections - Enabling the Smart Cities Infrastructure. In: International Conference on Computational Science and Computational Intelligence, pp. 531–536 (2018). <https://doi.org/10.1109/CSCI46756.2018.00108>
- [160] Neves, C.F.O.C., Moreno, U.F., Boava, A.: IoT-Based Distributed Networked Control Systems Architecture. In: IEEE International Conference on Emerging Technologies and Factory Automation, pp. 991–998 (2018). <https://doi.org/10.1109/ETFA.2018.8502500>
- [161] Vora, J., Nayyar, A., Tanwar, S., Tyagi, S., Kumar, N., Obaidat, M.S., Rodrigues, J.J.P.C.: BHEEM: A Blockchain-Based Framework for Securing Electronic Health Records. In: IEEE Globecom Workshops (2018). <https://doi.org/10.1109/GLOCOMW.2018.8644088>
- [162] Neto, M.M., Coutinho, E.F., Oliveira Moreira, L., Souza, J.N., Agoulmine, N.: A proposal for monitoring people of health risk group using IoT technologies. In: IEEE International Conference on e-Health Networking, Applications and Services (2018). <https://doi.org/10.1109/HealthCom.2018.8531196>
- [163] Araújo Júnior, A.D., Cacho, N.A.A., Bezerra, L.C.T., Vieira, C., Melo Borges, J.C.: Towards a Crime Hotspot Detection Framework for Patrol Planning. In: IEEE International Conference on High Performance Computing and Communications, IEEE International Conference on Smart City and IEEE International Conference on Data Science and Systems, pp. 1256–1263 (2018). <https://doi.org/10.1109/HPCC/SmartCity/DSS.2018.00211>
- [164] Peixoto, M.L.M., Souza, I., Barbosa, M.T.M., Souza, G.L.P., Batista, B.G., Kuehne, B.T., Filho, D.M.L.: Data Missing Problem in Smart Surveillance Environment. In: International Conference on High Performance Computing & Simulation, pp. 962–969 (2018). <https://doi.org/10.1109/HPCS.2018.00152>
- [165] Silva, H.W., Barbalho, F.R., Neto, A.J.V.: Cross-layer Multiuser Session Control for Improved SDN Cloud Communications. In: International Conference on Computing, Networking and Communications, pp. 377–382 (2018). <https://doi.org/10.1109/ICCNC.2018.8390400>
- [166] Godoi, F.N., Denardin, G.W., Barriquello, C.H., Prado, R.N.: Wireless sensor network quality of service optimization for smart cities. In: IEEE International Conference on Industrial Technology, pp. 1952–1957 (2018). <https://doi.org/10.1109/ICIT.2018.8352485>
- [167] Santos, E., Penna, P.H.V., Coelho, I.M., Soares, H.D., Ochi, L.S., Simonetti, L.: Logistics SLA optimization service for transportation in smart cities. In: International Joint Conference on Neural Networks, pp. 1–8 (2018). <https://doi.org/10.1109/IJCNN.2018.8489344>

- [168] Grilo, E.S., Lopes, B.: Formalization and Certification of Software for Smart Cities. In: International Joint Conference on Neural Networks, pp. 1–8 (2018). <https://doi.org/10.1109/IJCNN.2018.8489371>
- [169] Lourenço, V.N., Junior, P.R.M.M., Guimaraes, A., Carvalho, A.M.P., Oliveira, D.C.M.: Towards Safer (Smart) Cities: Discovering Urban Crime Patterns Using Logic-based Relational Machine Learning. In: International Joint Conference on Neural Networks, pp. 1–8 (2018). <https://doi.org/10.1109/IJCNN.2018.8489374>
- [170] Oliveira, E.S., Peixoto, J.P.J., Costa, D.G., Portugal, P.: Multiple Mobile Sinks in Event-based Wireless Sensor Networks Exploiting Traffic Conditions in Smart City Applications. In: IEEE International Conference on Industrial Informatics, pp. 502–507 (2018). <https://doi.org/10.1109/INDIN.2018.8472005>
- [171] Olivatti, Y., Penteado, C., Júnior, P.T.A., Maia, R.F.: Analysis of artificial intelligence techniques applied to thermographic inspection for automatic detection of electrical problems. In: IEEE International Smart Cities Conference, pp. 1–5 (2018). <https://doi.org/10.1109/ISC2.2018.8656724>
- [172] Parcianello, Y., Kozievitch, N.P., Fonseca, K.V.O., Oliveira Rosa, M., Gadda, T.M.C., Malucelli, F.C.: Transportation: An Overview from Open Data Approach. In: IEEE International Smart Cities Conference, pp. 1–8 (2018). <https://doi.org/10.1109/ISC2.2018.8656937>
- [173] Penteado, C., Olivatti, Y., Lopes, G., Rodrigues, P., Maia, R.F., Junior, P.T.A.: Water leaks detection based on thermal images. In: IEEE International Smart Cities Conference, pp. 1–8 (2018). <https://doi.org/10.1109/ISC2.2018.8656938>
- [174] Meslin, A., Rodriguez, N., Endler, M.: A Scalable Multilayer Middleware for Distributed Monitoring and Complex Event Processing for Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–8 (2018). <https://doi.org/10.1109/ISC2.2018.8656961>
- [175] Zyrianoff, I.D.R., Borelli, F.F., Biondi, G.O., Heideker, A., Kamienski, C.: Scalability of Real-Time IoT-based Applications for Smart Cities. In: IEEE Symposium on Computers and Communication, pp. 688–693 (2018). <https://doi.org/10.1109/ISCC.2018.8538451>
- [176] Almeida Buosi, M., Cilloni, M., Corradi, A., Rolt, C.R., Silva Dias, J., Foschini, L., Montanari, R., Zito, P.: A Crowdsensing Campaign and Data Analytics for Assisting Urban Mobility Pattern Determination. In: IEEE Symposium on Computers and Communication, pp. 224–229 (2018). <https://doi.org/10.1109/ISCC.2018.8538483>
- [177] Matos, S., Vieira, J., Matos, L.N., Britto, A.: Objective Reduction on Many-Objective Traffic Lights Signaling Optimization. In: IEEE Symposium on Computers and Communication, pp. 919–924 (2018). <https://doi.org/10.1109/>

- [178] Gomes, E.H.A., Penz, D., Gomes, V.E., Rolt, C.R., Dantas, M.A.R.: Evaluating the tools to analyze the data from the ParticipACT Brazil Project: A test with Elasticsearch Tools Ecosystem with Twitter data. In: IEEE Symposium on Computers and Communication, pp. 1286–1291 (2018). <https://doi.org/10.1109/ISCC.2018.8538622>
- [179] Silva Tavares, P., Rodrigues, E.B.: IoT-Based Architecture for Data Analytics of Arboviruses in Smart Cities. In: IEEE Symposium on Computers and Communication, pp. 952–957 (2018). <https://doi.org/10.1109/ISCC.2018.8538722>
- [180] Zorzo, A.F., Nunes, H.C., Lunardi, R.C., Michelin, R.A., Kanhere, S.S.: Dependable IoT Using Blockchain-Based Technology. In: Latin-American Symposium on Dependable Computing, pp. 1–9 (2018). <https://doi.org/10.1109/LADC.2018.00010>
- [181] Santos, M.R.P., Castro Callado, A.: An Architecture Proposal for Network Traffic Monitoring with IoT Traffic Classification Support. In: IEEE Summer School on Smart Cities, pp. 55–60 (2018). <https://doi.org/10.1109/S3C.2017.8501367>
- [182] Oliveira, K.V., Castelli, H.M.E., Montebeller, S.J., Avancini, T.G.P.: Wireless Sensor Network for Smart Agriculture using ZigBee Protocol. In: IEEE Summer School on Smart Cities, pp. 61–66 (2018). <https://doi.org/10.1109/S3C.2017.8501379>
- [183] Camboim, H.B., Neto, A.J.V., Rodrigues, J.J.P.C., Zhao, Z.: Applying Fog Computing to Improve Crime Assistance in Smart Transportation Safety Systems. In: IEEE Summer School on Smart Cities, pp. 19–24 (2018). <https://doi.org/10.1109/S3C.2017.8501398>
- [184] Filho, J.P., Júnior, P.R.M.S., Raimundo, P.O., Novais, R.L., Vieira, V., Mendonça Neto, M.G.: On the Design of a Contextual Emergency State Builder with Multiple Data Sources. In: IEEE Summer School on Smart Cities, pp. 85–90 (2018). <https://doi.org/10.1109/S3C.2017.8501403>
- [185] Souza Alencar, W., Jradi, W.A.R., Nascimento, H.A.D., Hall, B.R., Longo, H.J.: PetGyn 2.0: A Brazilian Urban Traffic Planning System. In: IEEE Summer School on Smart Cities, pp. 7–12 (2018). <https://doi.org/10.1109/S3C.2017.8501405>
- [186] Lucani, D.E., Fehér, M., Fonseca, K.V.O., Oliveira Rosa, M., Despotov, B.: Secure and Scalable Key Value Storage for Managing Big Data in Smart Cities using Intel SGX. In: IEEE International Conference On Smart Cloud, pp. 70–76 (2018). <https://doi.org/10.1109/SmartCloud.2018.00020>

- [187] Souza, A.E.C., Wen, Z., Cacho, N.A.A., Romanovsky, A., James, P., Ranjan, R.: Using Osmotic Services Composition for Dynamic Load Balancing of Smart City Applications. In: IEEE Conference On Service-Oriented Computing And Applications, pp. 145–152 (2018). <https://doi.org/10.1109/SOCA.2018.00029>
- [188] Fernandes, C.O., Lucena, C.J.P., Silva, D.: Smart depth of anesthesia monitoring with EEG sensors and agent-based technology. In: IEEE SmartWorld Ubiquitous Intelligence and Computing, Advanced and Trusted Computed, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People and Smart City Innovation, pp. 1–8 (2018). <https://doi.org/10.1109/UIC-ATC.2017.8397455>
- [189] Ferreira, J.E., Visintin, J.A., Júnior, J.O., Pu, C.: Smart services: A case study on smarter public safety by a mobile app for University of São Paulo. In: IEEE SmartWorld Ubiquitous Intelligence and Computing, Advanced and Trusted Computed, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People and Smart City Innovation, pp. 1–5 (2018). <https://doi.org/10.1109/UIC-ATC.2017.8397574>
- [190] Melo Borges, J.C., Ziehr, D., Beigl, M., Cacho, N.A.A., Medeiros Martins, A., Sudrich, S., Abt, S., Frey, P., Knapp, T., Etter, M., Popp, J.: Feature engineering for crime hotspot detection. In: IEEE SmartWorld Ubiquitous Intelligence and Computing, Advanced and Trusted Computed, Scalable Computing and Communications, Cloud and Big Data Computing, Internet of People and Smart City Innovation, pp. 1–8 (2018). <https://doi.org/10.1109/UIC-ATC.2017.8397586>
- [191] Amjad, M., Qureshi, H.K., Lestas, M., Mumtaz, S., Rodrigues, J.J.P.C.: Energy Prediction Based MAC Layer Optimization for Harvesting Enabled WSNs in Smart Cities. In: IEEE Vehicular Technology Conference, pp. 1–6 (2018). <https://doi.org/10.1109/VTCSpring.2018.8417855>
- [192] Falcão, A.G.R., Souza Baptista, C., Oliveira, M.G., Rocha, J.H., Silva Leite, T.H., Queiroz, J.E.R.: Towards a reputation model applied to geosocial networks: a case study on crowd4city. In: Annual ACM Symposium on Applied Computing, pp. 1756–1763 (2018). <https://doi.org/10.1145/3167132.3167319>
- [193] Mendes, A., Loss, S.M., Sousa Cavalcante, E.R., Silva Lopes, F.A., Batista, T.V.: Mandala: An Agent-Based Platform to Support Interoperability in Systems-of-Systems. In: International Workshop on Software Engineering for Systems-of-Systems, pp. 21–28 (2018). <https://doi.org/10.1145/3194754.3194757>
- [194] Santos, V., Camara, P., Bernardini, F.C., Filho, J.V., Jorge, D.: A framework for constructing open data map visualizations. In: Brazilian Symposium on Information Systems, pp. 89–95 (2018). <https://doi.org/10.1145/3229345.3229358>

- [195] Tanaka, S.A., Barros, R.M., Souza Mendes, L.: A PROPOSAL TO A FRAMEWORK FOR GOVERNANCE OF ICT AIMING AT SMART CITIES WITH A FOCUS ON ENTERPRISE ARCHITECTURE. In: Brazilian Symposium on Information Systems, pp. 408–415 (2018). <https://doi.org/10.1145/3229345.3229400>
- [196] Neto, V.V.G., Manzano, W., Kassab, M., Nakagawa, E.Y.: Model-based engineering and simulation of software-intensive systems-of-systems: Experience report and lessons learned. In: European Conference on Software Architecture (2018). <https://doi.org/10.1145/3241403.3241432>
- [197] Ayora, V., Horita, F., Kamienski, C.: Social Networks as Real-time Data Distribution Platforms for Smart Cities. In: Latin America Networking Conference, pp. 2–9 (2018). <https://doi.org/10.1145/3277103.3277123>
- [198] Fortini, P.M., Junior, C.A.D.: Analysis, integration and visualization of urban data from multiple heterogeneous sources. In: ACM SIGSPATIAL International Workshop on Advances in Resilient and Intelligent Cities, pp. 17–26 (2018). <https://doi.org/10.1145/3284566.3284569>
- [199] Michelin, R.A., Dorri, A., Lunardi, R.C., Steger, M., Kanhere, S.S., Jurdak, R., Zorzo, A.F.: SpeedyChain: A framework for decoupling data from blockchain for smart cities. In: EAI International Conference on Mobile and Ubiquitous Systems: Computing, Networking and Services, pp. 145–154 (2018). <https://doi.org/10.1145/3286978.3287019>
- [200] Filho, R.R., Sá, M.P., Porter, B., Costa, F.M.: Towards emergent microservices for client-tailored design. In: Workshop on Adaptive and Reflexive Middleware, pp. 7–12 (2018). <https://doi.org/10.1145/3289175.3289177>
- [201] Silva, C., Oliveira, Y., Sousa Celes, C.S.F., Braga, R.B., Oliveira, C.T.: Performance Evaluation of Wireless Mesh Networks in Smart Cities Scenarios. In: Euro-American Conference on Telematics and Information Systems (2018). <https://doi.org/10.1145/3293614.3293615>
- [202] Neto, G.V.A., Viana, J.D.F., Braga, R.B., Oliveira, C.T.: Surfaces categorization based on data collected by bike sensors. In: Euro-American Conference on Telematics and Information Systems (2018). <https://doi.org/10.1145/3293614.3293625>
- [203] Santana, E.F.Z., Kanashiro, L., Tomasiello, D.B., Kon, F., Giannotti, M.: Analyzing urban mobility carbon footprint with large-scale, agent-based simulation. In: International Conference on Smart Cities and Green ICT Systems, pp. 143–150 (2018). <https://doi.org/10.5220/0006662201430150>
- [204] Xavier, W.Z., Neto, H.T.M.: Modal - A platform for mobility analyses using open datasets. *Communications in Computer and Information Science* **926**, 40–55

(2019) https://doi.org/10.1007/978-3-030-11238-7_3

- [205] Junior, M.R., Oliveira, R.P., Carvalho, F.O., Lifschitz, S., Endler, M.: Mensageria: A smart city framework for real-time analysis of traffic data streams. *Communications in Computer and Information Science* **926**, 59–73 (2019) https://doi.org/10.1007/978-3-030-11238-7_4
- [206] Holanda, G.M., Adorni, C.Y.K.O., Souza, J.M.: Data science supporting smart city management: A predictive analysis perspective. *Smart Innovation, Systems and Technologies* **140**, 427–440 (2019) https://doi.org/10.1007/978-3-030-16053-1_41
- [207] Barbosa, R.A., Sousa, R.P., Oliveira, F.A., Oliveira, H.C., Luz, P.D.G., Manêra, L.T.: Circulino: An IoT solution applied in the university transport service. *Smart Innovation, Systems and Technologies* **140**, 503–514 (2019) https://doi.org/10.1007/978-3-030-16053-1_49
- [208] Sampaio, H.V., Jesus, A.L.C., Nascimento Boing, R., Westphall, C.B.: Autonomous IoT Battery Management with Fog Computing. *Lecture Notes in Computer Science* **11484 LNCS**, 89–103 (2019) https://doi.org/10.1007/978-3-030-19223-5_7
- [209] Wanderley, A.R.M.C., Bonacin, R.: Designing mobile and iot solutions for sustainable smart cities: Studies with electronic waste disposal. *Lecture Notes in Computer Science* **11587 LNCS**, 212–226 (2019) https://doi.org/10.1007/978-3-030-21935-2_17
- [210] Rodrigues, P.L., Santos Rabello, R., Cervi, C.R.: An Application to Generate Air Quality Recommendations and Alerts on a Smart Campus. *Communications in Computer and Information Science* **1033**, 507–514 (2019) https://doi.org/10.1007/978-3-030-23528-4_69
- [211] Ferreira, Y.M., Frank, L.R., Julio, E.P., Ferreira, F.H.C., Dembogurski, B.J., Silva, E.F.: Applying a Multilayer Perceptron for Traffic Flow Prediction to Empower a Smart Ecosystem. *Lecture Notes in Computer Science* **11619 LNCS**, 633–648 (2019) https://doi.org/10.1007/978-3-030-24289-3_47
- [212] Frank, L.R., Ferreira, Y.M., Julio, E.P., Ferreira, F.H.C., Dembogurski, B.J., Silva, E.F.: Multilayer Perceptron and Particle Swarm Optimization Applied to Traffic Flow Prediction on Smart Cities. *Lecture Notes in Computer Science* **11622 LNCS**, 35–47 (2019) https://doi.org/10.1007/978-3-030-24305-0_4
- [213] Alves, B.R., Alves, G.V., Borges, A.P., Leitão, P.: Experimentation of Negotiation Protocols for Consensus Problems in Smart Parking Systems. *Lecture Notes in Computer Science* **11710 LNAI**, 189–202 (2019) https://doi.org/10.1007/978-3-030-27878-6_15

- [214] Faial, D., Bernardini, F.C., Miranda, L.B.A., Filho, J.V.: Anomaly detection in vehicle traffic data using batch and stream supervised learning. *Lecture Notes in Computer Science* **11804 LNAI**, 675–684 (2019) https://doi.org/10.1007/978-3-030-30241-2_56
- [215] Farias, R.S., Souza, R.M., McGregor, J.D., Almeida, E.S.: Designing smart city mobile applications: An initial grounded theory. *Empirical Software Engineering* **24**(6), 3255–3289 (2019) <https://doi.org/10.1007/s10664-019-09723-8>
- [216] Oliveira, C.H.R., Costa, A.P.F., Thomaz, V.F., Silva, I.A.: Low-cost deployment proposal to urban mobility in smart cities. *Journal of Supercomputing* **75**(11), 7265–7289 (2019) <https://doi.org/10.1007/s11227-019-02941-3>
- [217] Marques, P., Manfro, D., Deitos, E., Cegoni, J., Castilhos, R., Rochol, J., Freitas, E.P., Kunst, R.: An IoT-based smart cities infrastructure architecture applied to a waste management scenario. *Ad Hoc Networks* **87**, 200–208 (2019) <https://doi.org/10.1016/j.adhoc.2018.12.009>
- [218] Godoi, F.N., Denardin, G.W., Barriquello, C.H.: Reliability enhancement of packet delivery in multi-hop wireless sensor network. *Computer Networks* **153**, 86–91 (2019) <https://doi.org/10.1016/j.comnet.2019.02.013>
- [219] Caminha, P.H.C., Souza Couto, R., Costa, L.H.M.K.: An algorithm for sink positioning in bus-assisted smart city sensing. *Future Generation Computer Systems* **93**, 761–769 (2019) <https://doi.org/10.1016/j.future.2017.09.018>
- [220] Silva, H.W., Barbalho, F.R., Neto, A.J.V.: Cross-layer multiuser session control for optimized communications on SDN-based cloud platforms. *Future Generation Computer Systems* **92**, 1116–1130 (2019) <https://doi.org/10.1016/j.future.2017.11.016>
- [221] Souza, T.I.A., Aquino, A.L.L., Gomes, D.G.: A method to detect data outliers from smart urban spaces via tensor analysis. *Future Generation Computer Systems* **92**, 290–301 (2019) <https://doi.org/10.1016/j.future.2018.09.062>
- [222] Moura Del Esposte, A., Santana, E.F.Z., Kanashiro, L., Costa, F.M., Braghetto, K.R., Lago, N.P., Kon, F.: Design and evaluation of a scalable smart city software platform with large-scale simulations. *Future Generation Computer Systems* **93**, 427–441 (2019) <https://doi.org/10.1016/j.future.2018.10.026>
- [223] Din, I.U., Guizani, M., Rodrigues, J.J.P.C., Hassan, S., Korotaev, V.V.: Machine learning in the Internet of Things: Designed techniques for smart cities. *Future Generation Computer Systems* **100**, 826–843 (2019) <https://doi.org/10.1016/j.future.2019.04.017>
- [224] Rodrigues, G.S., Guimarães, F.P., Rodrigues, G.N., Knauss, A., Araújo, J.P.C., Andrade, H., Ali, R.: GoalD: A Goal-Driven deployment framework for dynamic

and heterogeneous computing environments. *Information and Software Technology* **111**, 159–176 (2019) <https://doi.org/10.1016/j.infsof.2019.04.003>

- [225] Oliveira Lage, M., Machado, C.A.S., Monteiro, C.M., Berssaneti, F.T., Quintanilha, J.A.: Location suitable for the implementation of carsharing in the city of São Paulo. *Procedia Manufacturing* **39**, 1962–1967 (2019) <https://doi.org/10.1016/j.promfg.2020.01.235>
- [226] Banerjee, S., Odelu, V., Das, A.K., Chattopadhyay, S., Rodrigues, J.J.P.C., Park, Y.: Physically Secure Lightweight Anonymous User Authentication Protocol for Internet of Things Using Physically Unclonable Functions. *IEEE Access* **7**, 85627–85644 (2019) <https://doi.org/10.1109/ACCESS.2019.2926578>
- [227] Fiore, S., Elia, D., Pires, C.E.S., Mestre, D.G., Cappiello, C., Vitali, M., Andrade, N., Braz, T., Lezzi, D., Moraes, R.L.D.O., Basso, T., Kozievitch, N.P., Fonseca, K.V.O., Antunes, N., Vieira, M.P.A., Palazzo, C., Blanquer, I., Júnior, W.M., Aloisio, G.: An Integrated Big and Fast Data Analytics Platform for Smart Urban Transportation Management. *IEEE Access* **7**, 117652–117677 (2019) <https://doi.org/10.1109/ACCESS.2019.2936941>
- [228] Khan, S., Muhammad, K., Mumtaz, S., Baik, S.W., Albuquerque, V.H.C.: Energy-Efficient Deep CNN for Smoke Detection in Foggy IoT Environment. *IEEE Internet of Things Journal* **6**(6, SI), 9237–9245 (2019) <https://doi.org/10.1109/JIOT.2019.2896120>
- [229] Cai, B.Y., Alvarez, R., Sit, M., Duarte, F., Ratti, C.: Deep Learning-Based Video System for Accurate and Real-Time Parking Measurement. *IEEE Internet of Things Journal* **6**(5, SI), 7693–7701 (2019) <https://doi.org/10.1109/JIOT.2019.2902887>
- [230] Silva Machado, K.L., Boukerche, A., Cerqueira, E.C., Loureiro, A.A.F.: A Data-Centric Approach for Social and Spatiotemporal Sensing in Smart Cities. *IEEE Internet Computing* **23**(1), 9–18 (2019) <https://doi.org/10.1109/MIC.2018.2881517>
- [231] Boukerche, A., Coutinho, R.W.L., Loureiro, A.A.F.: Information-Centric Cognitive Radio Networks for Content Distribution in Smart Cities. *IEEE Network* **33**(3), 146–151 (2019) <https://doi.org/10.1109/MNET.2019.1800044>
- [232] Budhiraja, I., Tyagi, S., Tanwar, S., Kumar, N., Rodrigues, J.J.P.C.: Tactile internet for smart communities in 5G: An insight for NOMA-based solutions. *IEEE Transactions on Industrial Informatics* **15**(5), 3104–3112 (2019) <https://doi.org/10.1109/TII.2019.2892763>
- [233] Pantoja, C.E., Soares, H.D., Filho, J.V., Alexandre, T., Seghrouchni, A.E.-F., Casals, A.: Exposing IoT Objects in the Internet Using the Resource Management Architecture. *International Journal of Software Engineering and*

Knowledge Engineering **29**(11-12), 1703–1725 (2019) <https://doi.org/10.1142/S0218194019400175>

- [234] Pires, F.M., Souza Mendes, L., Quiñonez, L.L.: Integrated system architecture for decision-making and urban planning in smart cities. *International Journal of Distributed Sensor Networks* **15**(8) (2019) <https://doi.org/10.1177/1550147719867829>
- [235] Garcés, L., Oquendo, F., Nakagawa, E.Y.: Software mediators as first-class entities of systems-of-systems software architectures. *Journal of the Brazilian Computer Society* **25**(1) (2019) <https://doi.org/10.1186/s13173-019-0089-3>
- [236] Mattos, D.M.F., Velloso, P.B., Duarte, O.C.M.B.: An agile and effective network function virtualization infrastructure for the Internet of Things. *Journal of Internet Services and Applications* **10**(1) (2019) <https://doi.org/10.1186/s13174-019-0106-y>
- [237] Junior, M.P.R., Olivieri, B., Endler, M.: DG2CEP: a near real-time on-line algorithm for detecting spatial clusters large data streams through complex event processing. *Journal of Internet Services and Applications* **10**(1) (2019) <https://doi.org/10.1186/s13174-019-0107-x>
- [238] Orrego, R.B.S., Barbosa, J.L.V.: A model for resource management in smart cities based on crowdsourcing and gamification. *Journal of Universal Computer Science* **25**(8), 1018–1038 (2019) <https://doi.org/10.3217/jucs-025-08-1018>
- [239] Silva, M.B.D., Signoretti, G.L.A.M., Oliveira, J., Silva, I.M.D., Costa, D.G.: A Crowdsensing Platform for Monitoring of Vehicular Emissions: A Smart City Perspective. *Future Internet* **11**(1) (2019) <https://doi.org/10.3390/fi11010013>
- [240] Bezerra, N.S., Åhlund, C., Saguna, S., Sousa Júnior, V.: Temperature impact in LoraWAN—A case study in northern Sweden. *Sensors* **19**(20) (2019) <https://doi.org/10.3390/s19204414>
- [241] Souza, T.I.A., Aquino, A.L.L., Gomes, D.G.: An online method to detect urban computing outliers via higher-order singular value decomposition. *Sensors* **19**(20) (2019) <https://doi.org/10.3390/s19204464>
- [242] Veiga, A.A., Abbas, C.J.B.: Proposal and application of bluetooth mesh profile for smart cities’ services. *Smart Cities* **2**(1) (2019) <https://doi.org/10.3390/smartcities2010001>
- [243] Costa, D.G., Damasceno, A.R.P., Silva, I.M.D.: Cityspeed: A crowdsensing-based integrated platform for general-purpose monitoring of vehicular speeds in smart cities. *Smart Cities* **2**(1), 46–65 (2019) <https://doi.org/10.3390/smartcities2010004>

- [244] Furtado, V., Lima, L., Chagas, D.A., Pinheiro, V., Caminha, C., Furtado, E., Mafra, M.: E-totem, digital locative media to support e-participation in cities. *International Journal of Electronic Government Research* **15**(3), 1–20 (2019) <https://doi.org/10.4018/IJEGR.2019070101>
- [245] Martins, I.P., Junior, R.M.: Integration and management of urban data: a proposal of application in city information modeling. *AtoZ* **8**(1), 51–55 (2019) <https://doi.org/10.5380/atoz.v8i1.67261>
- [246] Baracho, R.M.A., Soergel, D., Junior, M.L.P., Henriques, M.: A proposal for developing a comprehensive ontology for smart cities / smart buildings / smart life. In: *International Multi-Conference on Complexity, Informatics and Cybernetics*, pp. 110–115 (2019)
- [247] Cavalcante, A.M., Gomes, P.H., Marquezini, M.V., Bonomini, I., Mendes, L.L.: Applicability of IoT Technologies for 5G Use Cases in Brazil. In: *IEEE 5G World Forum*, pp. 53–57 (2019). <https://doi.org/10.1109/5GWF.2019.8911682>
- [248] Vieira, T.F., Brito, D.B., Ribeiro, M., Bezerra Queiroz Araújo: An IoT Based Smart Utility Pole and Street Lighting System. In: *IEEE CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies*, pp. 1–5 (2019). <https://doi.org/10.1109/chilecon47746.2019.8987690>
- [249] Hernandez, S.C.L., Pellenz, M.E., Calsavara, A.: A Study on Publish-Subscribe Middlewares for Selective Notification Delivery in Smart Cities. In: *Latin American Computing Conference*, pp. 1–10 (2019). <https://doi.org/10.1109/CLEI47609.2019.235115>
- [250] Alencar Ribeiro, V.P., Filho, R.H., Ramos, A.: A Secure and Fault-Tolerant Architecture for LoRaWAN Based on Blockchain. In: *Cyber Security In Networking Conference*, pp. 35–41 (2019). <https://doi.org/10.1109/csnet47905.2019.9108933>
- [251] Quessada, M.S., Cristiani, A.L., Junior, P.L.R., Leal, M.P., Meneguette, R.I.: SEnTINEL - INtELligent Transport SystEm for Urban Mobility Management in Smart Cities. In: *International Conference on Distributed Computing in Sensor Systems*, pp. 538–545 (2019). <https://doi.org/10.1109/DCOSS.2019.00102>
- [252] Zhang, L., Wu, J., Mumtaz, S., Li, J., Gačanin, H., Rodrigues, J.J.P.C.: Edge-to-Edge Cooperative Artificial Intelligence in Smart Cities with On-Demand Learning Offloading. In: *IEEE Global Communications Conference*, pp. 1–6 (2019). <https://doi.org/10.1109/globecom38437.2019.9013878>
- [253] Souza, A.E.C., Cacho, N.A.A., Noor, A., Jayaraman, P.P., Romanovsky, A., Ranjan, R.: Osmotic Monitoring of Microservices between the Edge and Cloud. In: *IEEE International Conference on High Performance Computing and Communications, IEEE International Conference on Smart City and IEEE*

- International Conference on Data Science and Systems, pp. 758–765 (2019). <https://doi.org/10.1109/HPCC/SmartCity/DSS.2018.00129>
- [254] Campos Luz, T., Segura, G.A.N., Margi, C.B., Verdi, F.L.: In-network performance measurements for Software Defined Wireless Sensor Networks. In: IEEE International Conference on Networking, Sensing and Control, pp. 206–211 (2019). <https://doi.org/10.1109/ICNSC.2019.8743237>
 - [255] Morenas, J., Silva, C.M., Barbosa, J., Leitão, P.: Low Cost Integration of IoT Technologies for Building Automation. In: Annual Conference of the IEEE Industrial Electronics Society, pp. 2548–2553 (2019). <https://doi.org/10.1109/IECON.2019.8926935>
 - [256] Lima, D.B.C., Silva Lima, R.M.B., Farias Medeiros, D., Pereira, R.I.S., Souza, C.P., Baiocchi, O.: A Performance Evaluation of Raspberry Pi Zero W Based Gateway Running MQTT Broker for IoT. In: IEEE Annual Information Technology, Electronics and Mobile Communication Conference, pp. 76–81 (2019). <https://doi.org/10.1109/IEMCON.2019.8936206>
 - [257] Quiñonez, L.L., Pires, F.M., Martini, L.C., Souza Mendes, L.: Proposal for a Real-time On-Board Monitor to Evaluate the Comfort Level in Scholar Transportation. In: IEEE Annual Information Technology, Electronics and Mobile Communication Conference, pp. 1113–1117 (2019). <https://doi.org/10.1109/IEMCON.2019.8936237>
 - [258] Pires, F.M., Quiñonez, L.L., Souza Mendes, L.: A Cloud-Based System Architecture for Advanced Metering in Smart Cities. In: IEEE Annual Information Technology, Electronics and Mobile Communication Conference, pp. 1087–1091 (2019). <https://doi.org/10.1109/IEMCON.2019.8936283>
 - [259] Costa, D.G., Rangel, E.O., Peixoto, J.P.J., Jesus, T.C.: An Availability Metric and Optimization Algorithms for Simultaneous Coverage of Targets and Areas by Wireless Visual Sensor Networks. In: IEEE International Conference on Industrial Informatics, pp. 617–622 (2019). <https://doi.org/10.1109/INDIN41052.2019.8972176>
 - [260] Oliveira, L.F.P., Manera, L.T., Luz, P.D.G.: Smart Traffic Light Controller System. In: International Conference on Internet of Things: Systems, Management and Security, pp. 155–160 (2019). <https://doi.org/10.1109/IOTSMS48152.2019.8939239>
 - [261] Costa, E., Vanhaverbeke, L., Coosemans, T., Seixas, J., Messagie, M., Costa, G.: Optimizing The Location Of Charging Infrastructure For Future Expansion Of ElectricVehicle In Sao Paulo, Brazil. In: IEEE International Smart Cities Conference, pp. 632–637 (2019). <https://doi.org/10.1109/ISC246665.2019.9071676>
 - [262] Souza, A.E.C., Silva, L.S.I., Rocha Neto, A.F., Cacho, N.A.A., Batista, T.V.:

- Sapparchi: An Architecture for Smart City Applications from Edge, Fog and Cloud Computing. In: IEEE International Smart Cities Conference, pp. 262–267 (2019). <https://doi.org/10.1109/ISC246665.2019.9071686>
- [263] Ribeiro, J.L.S., Figueredo, M.R.C., Araújo Júnior, A.D., Cacho, N.A.A., Silva Lopes, F.A.: A Microservice Based Architecture Topology for Machine Learning Deployment. In: IEEE International Smart Cities Conference, pp. 426–431 (2019). <https://doi.org/10.1109/ISC246665.2019.9071708>
 - [264] Loss, S.M., Cacho, N.A.A., Valle, J.M.A., Silva Lopes, F.A.: Orthus: A Blockchain Platform for Smart Cities. In: IEEE International Smart Cities Conference, pp. 212–217 (2019). <https://doi.org/10.1109/ISC246665.2019.9071761>
 - [265] Santos Filho, F.H.C., Dester, P.S., Stancanelli, E.M.G., Cardieri, P.: Feasibility of Alarm Events upon Smart Metering in LoRa Networks. In: International Symposium on Wireless Communication Systems, pp. 480–484 (2019). <https://doi.org/10.1109/ISWCS.2019.8877346>
 - [266] Amor Divino Lima, R.S., Leal, M.S.B., Santos Brito, Y.P., Santos, C.G.R., Meiguins, B.S.: ChoroLibre: Supporting Georeferenced Demographic Information Visualization Through Hierarchical Choropleth Maps. In: International Conference in Information Visualization, pp. 56–61 (2019). <https://doi.org/10.1109/IV-2.2019.00020>
 - [267] Storck, C.R., Figueiredo, F.D.: A 5G New Smart City Services Facilitator Model. In: IEEE Latin-American Conference on Communications, pp. 1–6 (2019). <https://doi.org/10.1109/LATINCOM48065.2019.8937947>
 - [268] Dias, S., Júnior, J.J., Carvalho, T., Francês, R.: Efficient Allocation of Mobile Resources using Fuzzy Systems for a QoS Planning. In: Latin-American Conference on Communications (2019). <https://doi.org/10.1109/LATINCOM48065.2019.8937981>
 - [269] Vasconcelos Monteiro Cavalcanti, R.J.B., Matos Costa, D.C., Ali, M.S.A., Oliveira, J.P.P., Silva, D.R.C., Nogueira, M.B., Rodrigues, M.C.: A Framework for Uniformization of Security, Network and Management in IoT Applications. In: Workshop on Metrology for Industry 4.0 and IoT, pp. 196–201 (2019). <https://doi.org/10.1109/METROI4.2019.8792865>
 - [270] Ferreira, C.M.S., Oliveira, R.A.R., Silva, J.S.: Low-Energy Smart Cities Network with LoRa and Bluetooth. In: IEEE International Conference on Mobile Cloud Computing, Services, and Engineering, pp. 24–29 (2019). <https://doi.org/10.1109/MobileCloud.2019.00011>
 - [271] Liborio, P.P., Lam, C.T., Ng, B., Guidoni, D.L., Curado, M., Villas, L.A.: Network Slicing in IEEE 802.11ah. In: IEEE International Symposium on Network Computing and Applications, pp. 303–311 (2019). <https://doi.org/10.1109/nca>

- [272] Rocha, B.P.F.D., Sousa Cavalcante, E.R., Batista, T.V., Silva, J.P.: A Linked Data-Based Semantic Information Model for Smart Cities. In: Brazilian Symposium on Computing Systems Engineering (2019). <https://doi.org/10.1109/sbesc49506.2019.9046078>
- [273] Ribeiro, V.C.T., Greate, V.R., Júnior, A.B.B., Silvano, G.V.T., Silva, I.M.D., Endo, P.T., Lynn, T.: Brazilian Mercosur License Plate Detection: a Deep Learning Approach Relying on Synthetic Imagery. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–8 (2019). <https://doi.org/10.1109/sbesc49506.2019.9046091>
- [274] Medina, E.E.A., Barbin, S.E., Kofuji, S.T.: Proposal of a System Architecture for Real Time Quality of Service Monitoring of Mobile Telephony Networks. In: IEEE Sustainable Cities Latin America Conference, pp. 1–6 (2019). <https://doi.org/10.1109/SCLA.2019.8905462>
- [275] Cabrini, F.H., Barros Castro Filho, A., Filho, F.V., Kofuji, S.T., Moura, A.R.L.P.: Helix SandBox: An Open Platform to Fast Prototype Smart Environments Applications. In: IEEE Sustainable Cities Latin America Conference, pp. 1–6 (2019). <https://doi.org/10.1109/SCLA.2019.8905583>
- [276] Menezes, A.A.F., Figueiredo, C.M.S.: A ranking method for location-based categorical data in smart cities. In: Brazilian Symposium on Multimedia and the Web, pp. 453–460 (2019). <https://doi.org/10.1145/3323503.3360291>
- [277] Queiroz, M.D., Palmeira, R.A.P., Melo, F.T., Daniel, R.G., Alexandria Rique, Guimarães, A.C.P., Martins, M.B., Lino, N.C.Q.: A Framework to Support Experts in the Study of Energy Efficiency in Urban Trains. In: Brazilian Symposium on Information Systems (2019). <https://doi.org/10.1145/3330204.3330214>
- [278] Santos, D.V., Oliveira Rosa, T., Silva, F.J., Durans, P., Aragão, A., Kon, F., Lejbman, A.G.: Software Engineering Practices in the development of applications for Smart Cities: An Experience Report of Teaching in a Contemporary Context. In: Brazilian Symposium on Software Engineering, pp. 150–154 (2019). <https://doi.org/10.1145/3350768.3351801>
- [279] Oliveira, D.L., Silva Veloso, A.F., Sobral, J.V.V., Andrade Lira Rabelo, R., Rodrigues, J.J.P.C., Šolić, P.: Performance Evaluation of MQTT Brokers in the Internet of Things for Smart Cities. In: International Conference on Smart and Sustainable Technologies, pp. 1–6 (2019). <https://doi.org/10.23919/SpliTech.2019.8783166>
- [280] Corrêa, F.P.D.B., Marçal, I., Garcia, R.E., Junior, C.O., Eler, D.M., Correia, R.C.M.: Service-based data storage and retrieval framework for smart cities.

- [281] Hernandez, S.C.L., Pellenz, M.E., Calsavara, A., Oliveira Penna Neto, M.C.: An Efficient Event-Based Protocol for Emergency Situations in Smart Cities. *Advances in Intelligent Systems and Computing* **926**, 523–534 (2020) https://doi.org/10.1007/978-3-030-15032-7_44
- [282] Oliveira Neto, J.S., Kofuji, S.T., Bourda, Y.: People with disabilities’ needs in urban spaces as challenges towards a more inclusive smart city. *Advances in Intelligent Systems and Computing* **1137 AISC**, 285–293 (2020) https://doi.org/10.1007/978-3-030-40690-5_28
- [283] Neto, M.M., Coutinho, E.F., Moreira, L.O., Souza, J.N.: Toward Blockchain Technology in IoT Applications: An Analysis for E-health Applications. *IFIP Advances in Information and Communication Technology* **574 IFIP**, 36–50 (2020) https://doi.org/10.1007/978-3-030-43605-6_3
- [284] Delgado, L., Feliciano, M., Mantovani, L., Furst, L., Leitão, P., Igrejas, G.: Construction and Validation of a Low-Cost System for Indoor Air Quality Measurements in Livestock Facilities. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering* **315 LNICST**, 232–245 (2020) https://doi.org/10.1007/978-3-030-45694-8_18
- [285] Neto, V.V.G., Santos, R.P., Santos, D.V., Araujo, R.M.: Towards a Conceptual Model to Understand Software Ecosystems Emerging from Systems-of-Information Systems. *Communications in Computer and Information Science* **1081 CCIS**, 1–20 (2020) https://doi.org/10.1007/978-3-030-46130-0_1
- [286] Souza, L.S., Misra, S., Santos Soares, M.: SmartCitySysML: A SysML Profile for Smart Cities Applications. *Lecture Notes in Computer Science* **12254 LNCS**, 383–397 (2020) https://doi.org/10.1007/978-3-030-58817-5_29
- [287] Cruz, M.A.A., Rodrigues, J.J.P.C., Gomes, G.F.A., Almeida, P.H., Andrade Lira Rabelo, R., Kumar, N., Mumtaz, S.: An IoT-Based Solution for Smart Parking. *Lecture Notes in Networks and Systems* **121**, 213–224 (2020) https://doi.org/10.1007/978-981-15-3369-3_16
- [288] Ugljanin, E., Kajan, E., Maamar, Z., Asim, M., Arruda Burégio, V.A.: Immersing citizens and things into smart cities: a social machine-based and data artifact-driven approach. *Computing* **102**(7), 1567–1586 (2020) <https://doi.org/10.1007/s00607-019-00774-9>
- [289] Kamienski, C., Ratusznei, J., Trindade, A., Cavalcanti, D.: Profiling of a large-scale municipal wireless network. *Wireless Networks* **26**(7), 5223–5253 (2020) <https://doi.org/10.1007/s11276-020-02390-4>

- [290] Filho, G.P.R., Meneguette, R.I., Neto, J.R.T., Valejo, A.D.B., Weiganga, L., Ueyama, J., Pessin, G., Villas, L.A.: Enhancing intelligence in traffic management systems to aid in vehicle traffic congestion problems in smart cities. *Ad Hoc Networks* **107**, 102265 (2020) <https://doi.org/10.1016/j.adhoc.2020.102265>
- [291] Costa, D.G., Oliveira, F.P.: A prioritization approach for optimization of multiple concurrent sensing applications in smart cities. *Future Generation Computer Systems* **108**, 228–243 (2020) <https://doi.org/10.1016/j.future.2020.02.067>
- [292] Bencke, L.R., Cechinel, C., Muñoz, R.: Automated classification of social network messages into Smart Cities dimensions. *Future Generation Computer Systems* **109**, 218–237 (2020) <https://doi.org/10.1016/j.future.2020.03.057>
- [293] Banerjee, S., Roy, S., Odelu, V., Das, A.K., Chattopadhyay, S., Rodrigues, J.J.P.C., Park, Y.: Multi-Authority CP-ABE-Based user access control scheme with constant-size key and ciphertext for IoT deployment. *Journal of Information Security and Applications* **53**, 102503 (2020) <https://doi.org/10.1016/j.jisa.2020.102503>
- [294] Guevara, J.C., Silva Torres, R., Fonseca, N.L.S.: On the classification of fog computing applications: A machine learning perspective. *Journal of Network and Computer Applications* **159**, 102596 (2020) <https://doi.org/10.1016/j.jnca.2020.102596>
- [295] Amah, T.E., Kamat, M., Bakar, K.A., Junior, W.A.M., Oliveira Júnior, A.C., Batista, M.A.: Preparing opportunistic networks for smart cities: Collecting sensed data with minimal knowledge. *Journal of Parallel and Distributed Computing* **135**, 21–55 (2020) <https://doi.org/10.1016/j.jpdc.2019.09.005>
- [296] Silva Lopes, M.A., Neto, A.D.D., Martins, A.D.M.: Parallel t-SNE Applied to Data Visualization in Smart Cities. *IEEE Access* **8**, 11482–11490 (2020) <https://doi.org/10.1109/ACCESS.2020.2964413>
- [297] Caetano, B.P., Paula, M.M.V., Souza, J.M.: SoPa: A Social Media for a Participatory Society. *IEEE Access* **8**, 70627–70639 (2020) <https://doi.org/10.1109/ACCESS.2020.2986644>
- [298] Din, S., Qureshi, K.N., Afsar, M.S., Rodrigues, J.J.P.C., Ahmad, A., Choi, G.S.: Beaconless Traffic-Aware Geographical Routing Protocol for Intelligent Transportation System. *IEEE Access* **8**, 187671–187686 (2020) <https://doi.org/10.1109/ACCESS.2020.3030982>
- [299] Neves, F., Campos, F., Ströele, V., Capretz, M.A.M., Jennings, M., Bryant, D., Dantas, M.A.R.: Heath-PRIOR: An Intelligent Ensemble Architecture to Identify Risk Cases in Healthcare. *IEEE Access* **8**, 217150–217168 (2020) <https://doi.org/10.1109/ACCESS.2020.3042342>

- [300] Cardoso, E.H.S., Araújo, J.P.L., Carvalho, S.V., Vijaykumar, N., Francês, C.R.L.: Novel Multilayered Cellular Automata for Flying Cells Positioning on 5G Cellular Self-Organising Networks. *IEEE Access* **8**, 227076–227099 (2020) <https://doi.org/10.1109/ACCESS.2020.3045663>
- [301] Oliveira, F.L.S., Costa, D.G., Faundez, C.D., Dias, A.M.: BikeWay: A Multi-Sensory Fuzzy-Based Quality Metric for Bike Paths and Tracks in Urban Areas. *IEEE Access* **8**, 227313–227326 (2020) <https://doi.org/10.1109/ACCESS.2020.3046017>
- [302] Gao, Z., Xu, C., Zhang, H., Li, S., Albuquerque, V.H.C.: Trustful Internet of Surveillance Things Based on Deeply Represented Visual Co-Saliency Detection. *IEEE Internet of Things Journal* **7**(5), 4092–4100 (2020) <https://doi.org/10.1109/JIOT.2019.2963701>
- [303] Meslin, A., Rodriguez, N., Endler, M.: Scalable Mobile Sensing for Smart Cities: The MUSANet Experience. *IEEE Internet of Things Journal* **7**(6), 5202–5209 (2020) <https://doi.org/10.1109/JIOT.2020.2977298>
- [304] Sousa Celes, C.S.F., Boukerche, A., Loureiro, A.A.F.: From Mobility Traces to Knowledge: Design Guidance for Intelligent Vehicular Networks. *IEEE Network* **34**(4), 227–233 (2020) <https://doi.org/10.1109/MNET.011.1900499>
- [305] Silva, P.C., Lucas, P., Sadaei, H.J., Guimarães, F.G.: Distributed Evolutionary Hyperparameter Optimization for Fuzzy Time Series. *IEEE Transactions on Network and Service Management* **17**(3), 1309–1321 (2020) <https://doi.org/10.1109/TNSM.2020.2980289>
- [306] Faraj, M.F., Urrutia, S., Sarubbi, J.F.M.: Gamma deployment problem in grids: hardness and new integer linear programming formulation. *International Transactions in Operational Research* **27**(6), 2740–2759 (2020) <https://doi.org/10.1111/itor.12759>
- [307] Garg, P., Dixit, A., Sethi, P., Pinheiro, P.R.: Impact of Node Density on the QoS Parameters of Routing Protocols in Opportunistic Networks for Smart Spaces. *Mobile Information Systems* **2020** (2020) <https://doi.org/10.1155/2020/8868842>
- [308] Ramalho, M.S., Rossetti, R.J.F., Cacho, N.A.A., Souza, A.E.C.: SmartGC: A software architecture for garbage collection in smart cities. *International Journal of Bio-Inspired Computation* **16**(2), 79–93 (2020) <https://doi.org/10.1504/ijbic.2020.109675>
- [309] Lopes, T.R.L., Dias, L.P.S., Costa, C.A., Nardin, I.F., Rosa Righi, R.: Collaborative humanless model for automatic pothole detection and driver notification. *International Journal of Computational Science and Engineering* **22**(2-3), 280–296 (2020) <https://doi.org/10.1504/IJCSE.2020.107350>

- [310] Gupta, N., Manaswini, R., Saikrishna, B., Silva, F.J., Teles, A.S.: Authentication-Based Secure Data Dissemination Protocol and Framework for 5G-Enabled VANET. *Future Internet* **12**(4) (2020) <https://doi.org/10.3390/fi12040063>
- [311] Santos Gonçalves, R., Soares, J.J.M., Lima, R.M.F.: An IoT-Based Framework for Smart Water Supply Systems Management. *Future Internet* **12**(7) (2020) <https://doi.org/10.3390/fi12070114>
- [312] Delicato, F.C., Vandelli, T., Bonicea, M., Farias, C.M.: Heracles: A Context-Based Multisensor Sensor Data Fusion Algorithm for the Internet of Things. *Information (Switzerland)* **11**(11), 1–19 (2020) <https://doi.org/10.3390/info11110517>
- [313] Costa, D.G., Vasques, F., Portugal, P., Aguiar, A.: On the Use of Cameras for the Detection of Critical Events in Sensors-Based Emergency Alerting Systems. *Journal Of Sensor and Actuator Networks* **9**(4) (2020) <https://doi.org/10.3390/jsan9040046>
- [314] Zyrianoff, I.D.R., Heideker, A., Silva, D.E.O.G., Kleinschmidt, J.H., Soininen, J.-P., Cinotti, T.S., Kamienski, C.A.: Architecting and deploying IoT smart applications: A performance-oriented approach. *Sensors* **20**(1) (2020) <https://doi.org/10.3390/s20010084>
- [315] Pardini, K., Rodrigues, J.J.P.C., Diallo, O., Das, A.K., Albuquerque, V.H.C., Kozlov, S.A.: A smart waste management solution geared towards citizens. *Sensors* **20**(8) (2020) <https://doi.org/10.3390/s20082380>
- [316] Silva, F.S.D., Silva, E.T., Paiva Neto, E., Oliveira Lemos, M.O., Neto, A.J.V., Esposito, F.: A taxonomy of DDoS attack mitigation approaches featured by SDN technologies in IoT scenarios. *Sensors* **20**(11) (2020) <https://doi.org/10.3390/s20113078>
- [317] Junior, S.A.F., Riker, A.F., Silvestre, B.O., Junior, W.A.M., Oliveira Júnior, A.C., Cunha Martins Borges, V.: DYNASTI—Dynamic multiple RPL instances for multiple IoT applications in smart city. *Sensors* **20**(11) (2020) <https://doi.org/10.3390/s20113130>
- [318] Frigo, M., Hirmer, P., Silva, A.C.F., Thom, L.H.: A toolbox for the internet of things - Easing the setup of IoT applications. In: *CEUR Workshop Proceedings*, pp. 87–100 (2020)
- [319] Santos, J.P.C., Carvalho Castro, J.P., Aguiar Ciferri, C.D.: SOLAP Query Processing over IoT Networks in Smart Cities: A Novel Architecture. In: *Brazilian Symposium on GeoInformatics*, pp. 118–129 (2020)
- [320] Baracho, R.M.A., Soergel, D., Mullarkey, M.T.: Toward a comprehensive smart

- ecosystem ontology smart cities, smart buildings, smart life. In: International Multi-Conference on Complexity, Informatics and Cybernetics, pp. 89–95 (2020)
- [321] Rangel, R.K., Lima Freitas Júnior, J., Souza, T.M.: Smart & Integrated Management System - Smart Cities, Epidemiological Control Tool Using Drones. In: IEEE Aerospace Conference, pp. 1–12 (2020). <https://doi.org/10.1109/AERO47225.2020.9172439>
 - [322] Melonio, A.C.C., Lopes, P.B.: São Paulo SmartViz Traffic-an information visualization tool. In: IEEE ANDESCON, pp. 1–6 (2020). <https://doi.org/10.1109/ANDESCON50619.2020.9272037>
 - [323] Lunardi, R.C., Alharby, M., Nunes, H.C., Zorzo, A.F., Dong, C., Moorsel, A.: Context-based consensus for appendable-block blockchains. In: IEEE International Conference on Blockchain, pp. 401–408 (2020). <https://doi.org/10.1109/Blockchain50366.2020.00058>
 - [324] Wanous, C.A., Pisani, F., Endler, M.: NOOP: An IoMT System for Notifying Public Security Issues and Increasing Police Patrol Coverage. In: Conference on Cloud and Internet of Things, pp. 33–40 (2020). <https://doi.org/10.1109/CIoT50422.2020.9244296>
 - [325] Brandão, Y.V., Souza, L.M., Silva Gomides, T., Grande, R.E., Souza, F.S.H., Guidoni, D.L.: A Multi-layer and Vanet-based Approach to Improve Accident Management in Smart Cities. In: International Conference on Distributed Computing in Sensor Systems, pp. 165–172 (2020). <https://doi.org/10.1109/DCOSS49796.2020.00037>
 - [326] Larsen, G.H., Yoshioka, L.R., Marte, C.L.: Bus Travel Times Prediction based on Real-Time Traffic Data Forecast using Artificial Neural Networks. In: International Conference on Electrical, Communication, and Computer Engineering, pp. 1–6 (2020). <https://doi.org/10.1109/ICECCE49384.2020.9179382>
 - [327] Oliveira, N.R., Reis, L.H.A., Fernandes, N.C., Bastos, C.A.M., Medeiros, D.S.V., Mattos, D.M.F.: Natural Language Processing Characterization of Recurring Calls in Public Security Services. In: International Conference on Computing, Networking and Communications, pp. 1009–1013 (2020). <https://doi.org/10.1109/ICNC47757.2020.9049821>
 - [328] Castilho, S.D., Godoy, E.P., Salmen, F.: Implementing Security and Trust in IoT/M2M using Middleware. In: International Conference on Information Networking, pp. 726–731 (2020). <https://doi.org/10.1109/icoi48656.2020.9016435>
 - [329] Hernandez, S.C.L., Pellenz, M.E., Calsavara, A., Oliveira Penna Neto, M.C.: A New Event Model for Event Notification Services Applied to Transport Services in Smart Cities. In: International Conference on Information Networking, pp. 202–207 (2020). <https://doi.org/10.1109/icoi48656.2020.9016510>

- [330] Teixeira, P.G., Lebttag, B.G.A., Santos, R.P., Fernandes, J.C., Mohsin, A., Kassab, M., Neto, V.V.G.: Constituent System Design: A Software Architecture Approach. In: IEEE International Conference on Software Architecture Companion, pp. 218–225 (2020). <https://doi.org/10.1109/ICSA-C50368.2020.00045>
- [331] Gao, Y., Chen, Y., Lin, H., Rodrigues, J.J.P.C.: Blockchain based secure IoT data sharing framework for SDN-enabled smart communities. In: IEEE Conference on Computer Communications Workshops, pp. 514–519 (2020). <https://doi.org/10.1109/INFOCOMWKSHPS50562.2020.9162725>
- [332] Pinto Alves, Milani, A.M.P., Manssour, I.H.: Visual Analytics System for Energy Data in Smart Cities and Buildings. In: IEEE International Smart Cities Conference, pp. 1–8 (2020). <https://doi.org/10.1109/ISC251055.2020.9239006>
- [333] Araújo, A., García, I., Cacho, N.A.A., Nascimento, L.A., Rolim, D., Medeiros, J.A., Santana, S., Paiva, A.S., Lima, M., Ramos, T., Macedo, K., Silva, J.P., Nascimento, J.D., Monteiro, L., Fernandes, M., Fernandes, N., Silva Lopes, F.A.: A Platform for Citizen Cooperation during the COVID-19 Pandemic in RN, Brazil. In: IEEE International Smart Cities Conference, pp. 1–8 (2020). <https://doi.org/10.1109/ISC251055.2020.9239008>
- [334] Negreiros, I., Francisco, A.C.C., Fengler, F.H., Faria, G., Pinto, L.G.P., Tolotto, M., Rogoschewski, R.B., Romano, R.R., Netto, R.S.: Smart Campus® as a living lab on sustainability indicators monitoring. In: IEEE International Smart Cities Conference, pp. 1–5 (2020). <https://doi.org/10.1109/ISC251055.2020.9239017>
- [335] Souza Salles, R., Souza, A.C.Z., Ribeiro, P.F.: Exploratory Research of Social Aspects for Smart City Development in Itajubá. In: IEEE International Smart Cities Conference, pp. 1–8 (2020). <https://doi.org/10.1109/ISC251055.2020.9239032>
- [336] Faria Guimarães Melo Pertence, A.A., Freitas Mini, R.A., Marques-Neto, H.T.: Vulnerability Analysis of the Urban Transport System in the Context of Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–8 (2020). <https://doi.org/10.1109/ISC251055.2020.9239050>
- [337] Costa, D.G., Vasques, F., Aguiar, A., Portugal, P.: Automatic Assignment of Emergency Vehicles in Response to Sensors-based Generated Alarms in Smart City Scenarios. In: IEEE International Smart Cities Conference, pp. 1–7 (2020). <https://doi.org/10.1109/ISC251055.2020.9239062>
- [338] Muse, L.P., Martins, P.R., Hojda, A., Abreu, P.A., Almeida, P.C.: The role of Urban Control and Command Centers in the face of COVID-19: The case of COR in Rio de Janeiro, Brazil. In: IEEE International Smart Cities Conference (2020). <https://doi.org/10.1109/ISC251055.2020.9239068>

- [339] Cruz, M.M., Oliveira, R.S., Beltrão, A.P.V., Lopes, P.H.B., Filho, J.V., Trevisan, D.G., Bernardini, F.C.: Assessing the level of acceptance of a crowdsourcing solution to monitor infectious diseases propagation. In: IEEE International Smart Cities Conference (2020). <https://doi.org/10.1109/ISC251055.2020.9239069>
- [340] Medeiros, H.P.L., Silva, G.G.B.: An IoT-based Air Quality Monitoring Platform. In: IEEE International Smart Cities Conference (2020). <https://doi.org/10.1109/ISC251055.2020.9239070>
- [341] Coelho, J.V.V., Souza Silva, J., Araújo Júnior, A.D., Cacho, N.A.A., Silva Lopes, F.A., Lima, J.A.M.: A Predictive Service for Highway Hotspot Policing. In: IEEE International Smart Cities Conference (2020). <https://doi.org/10.1109/ISC251055.2020.9239091>
- [342] Bernardi, E., Miyake, M.Y., Santos, A.S., Merichelli, M.P., Pereira, M.J., Polkorny, M.: Brazilian scenarios for smart cities deployment from public policies perspectives. In: IEEE International Smart Cities Conference, pp. 1–8 (2020). <https://doi.org/10.1109/ISC251055.2020.9239096>
- [343] Hashiguchi, K.K., Freitas Gai, B., Pigatto, D.F., Fonseca, K.V.O.: Exploratory Analysis of Public Transportation Data of Curitiba, Brazil. In: IEEE Symposium on Computers and Communication, pp. 1106–1111 (2020). <https://doi.org/10.1109/ISCC50000.2020.9219578>
- [344] Modina, N., El-Azouzi, R., Pellegrini, F., Menasche, D.S., Figueiredo, R.M.V.: Joint Traffic Offloading and Aging Control in 5G IoT Networks. In: International Teletraffic Congress, pp. 147–155 (2020). <https://doi.org/10.1109/ITC3249928.2020.00026>
- [345] Gibaut, W., Gudwin, R.R.: Extending the CST: The Distributed Cognitive Toolkit. In: International Conferences on Internet of Things, IEEE Green Computing and Communications, IEEE Cyber, Physical and Social Computing, IEEE Smart Data, IEEE Congress on Cybermatics, pp. 474–481 (2020). <https://doi.org/10.1109/iThings-GreenCom-CPSCCom-SmartData-Cybermatics50389.2020.00088>
- [346] Grilo, E.S., Vieira, B.L.: Modelling and Certifying Smart Cities in Reo Circuits. In: International Conference on Systems, Signals and Image Processing, pp. 453–458 (2020). <https://doi.org/10.1109/iwSSIP48289.2020.9145043>
- [347] Mentzingen, F., Martins, W., Alves, R., Lopes, Y.: Demand-Side Management Framework for Smart Cities. In: International Conference on Systems, Signals and Image Processing, pp. 435–440 (2020). <https://doi.org/10.1109/iwSSIP48289.2020.9145058>
- [348] Oliveira Fernandes, L.F., Bernardini, F.C., Meza, E.B.M., Miranda, L.B.A., Filho, J.V.: Energy Consumption Prediction using Data Stream Learning for

- Commercial Buildings. In: International Conference on Systems, Signals and Image Processing, pp. 441–446 (2020). <https://doi.org/10.1109/iwssip48289.2020.9145123>
- [349] Araujo, A.S., Câmara, B., Docek, F., Gaspar, L., Lopes, Y.: BEM: A Framework based on Business Intelligence, Quality of Experience, and Car Park Management. In: International Conference on Systems, Signals and Image Processing, pp. 429–434 (2020). <https://doi.org/10.1109/IWSSIP48289.2020.9145442>
 - [350] Cristiani, A.L., Lieira, D.D., Meneguette, R.I., Arruda Camargo, H.: A Fuzzy Intrusion Detection System for Identifying Cyber-Attacks on IoT Networks. In: IEEE Latin-American Conference on Communications, pp. 1–6 (2020). <https://doi.org/10.1109/LATINCOM50620.2020.9282320>
 - [351] Ferrari, P., Sisinni, E., Carvalho, D.F., Depari, A., Signoretti, G.L.A.M., Silva, M.B.D., Silva, I.M.D., Silva, D.R.C.: On the use of LoRaWAN for the Internet of Intelligent Vehicles in Smart City scenarios. In: IEEE Sensors Applications Symposium, pp. 1–6 (2020). <https://doi.org/10.1109/SAS48726.2020.9220069>
 - [352] Steinmetz, C., Schroeder, G.N., Rettberg, A., Pereira, C.E.: A digitalization concept for the interaction between users and car-as-a-service. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–8 (2020). <https://doi.org/10.1109/SBESC51047.2020.9277869>
 - [353] Silva Gomides, T., Grande, R.E., Souza, F.S.H., Guidoni, D.L.: A Traffic Management System to Minimize Vehicle Congestion in Smart Cities. In: IEEE International Conference on Systems, Man, and Cybernetics, pp. 1439–1444 (2020). <https://doi.org/10.1109/smc42975.2020.9283122>
 - [354] Valim, S., Souza, F.N., Pisani, F., Endler, M.: Middleware Support for Generic and Flexible Actuation in the Internet of Mobile Things. In: IEEE World Forum on Internet of Things, pp. 1–6 (2020). <https://doi.org/10.1109/WF-IoT48130.2020.9221035>
 - [355] Rodriguez, L.G.A., Batista, D.M.: Program-aware fuzzing for MQTT applications. In: ACM SIGSOFT International Symposium on Software Testing and Analysis, pp. 582–586 (2020). <https://doi.org/10.1145/3395363.3402645>
 - [356] Escalfoni, R., Silva, M.F., Oliveira Sampaio, J.: Analyzing Social Relations in Startup Ecosystems. In: Brazilian Symposium on Information Systems on Digital Transformation and Innovation (2020). <https://doi.org/10.1145/3411564.3411617>
 - [357] Rêgo, L.G.C., Silva, T.L.C., Magalhães, R.P., Macêdo, J.A.F., Silva, W.C.P.: Exploiting points of interest for predictive policing. In: ACM SIGSPATIAL International Workshop on Advances in Resilient and Intelligent Cities, pp. 20–28 (2020). <https://doi.org/10.1145/3423455.3430319>

- [358] Rocha, B.P.F.D., Silva, L.S.I., Batista, T.V., Sousa Cavalcante, E.R., Gomes, P.D.: An Ontology-based Information Model for Multi-Domain Semantic Modeling and Analysis of Smart City Data. In: Brazilian Symposium on Multimedia and the Web, pp. 73–80 (2020). <https://doi.org/10.1145/3428658.3430973>
- [359] Queiroz, T.A., Canali, C., Iori, M., Lancellotti, R.: A Location-allocation Model for Fog Computing Infrastructures. In: International Conference on Cloud Computing and Services Science , pp. 253–260 (2020). <https://doi.org/10.5220/0009324702530260>
- [360] Almeida, J.G.Q., Silva, J.P., Batista, T.V., Sousa Cavalcante, E.R.: A Linked Data-based Service for Integrating Heterogeneous Data Sources in Smart Cities. In: International Conference on Enterprise Information Systems, pp. 205–212 (2020). <https://doi.org/10.5220/0009422802050212>
- [361] Rubí, J.N.S., Lira Gondim, P.R.: IoT-based platform for environment data sharing in smart cities. *International Journal of Communication Systems* **34**(2) (2021) <https://doi.org/10.1002/dac.4515>
- [362] Jordão, K.C.P., Bianchini, D., Iano, Y., Monteiro, A.C.B., França, R.P.: Smart City: A Qualitative Reflection of How the Intelligence Concept with Effective Ethics Procedures Applied to the Urban Territory Can Effectively Contribute to Mitigate the Corruption Process and Illicit Economy Markets. *Smart Innovation, Systems and Technologies* **202**, 557–570 (2021) https://doi.org/10.1007/978-3-030-57566-3_55
- [363] França, R.P., Monteiro, A.C.B., Arthur, R., Iano, Y.: An Overview of the Machine Learning Applied in Smart Cities. *Lecture Notes in Intelligent Transportation and Infrastructure Part F1386*, 91–111 (2021) https://doi.org/10.1007/978-3-030-60922-1_5
- [364] Zezzatti, A.O., Rivera, M.M., Gallegos, J.C.P., Velazquez, C., Sampaio, P.N.M.: The Difficulties and Complications of Children When Going to a Zoo and Should Interact with the Colors of the Information in It: An Approach Based on the Use of a Humanoid NAO Robot in an Application for “Smart Cities”. *Lecture Notes in Intelligent Transportation and Infrastructure Part F1390*, 219–237 (2021) https://doi.org/10.1007/978-3-030-68655-0_11
- [365] Queiroz, T.A., Canali, C., Iori, M., Lancellotti, R.: A Variable Neighborhood Heuristic for Facility Locations in Fog Computing. *Lecture Notes in Computer Science 12559 LNCS*, 28–42 (2021) https://doi.org/10.1007/978-3-030-69625-2_3
- [366] Monteiro, A.C.B., França, R.P., Arthur, R., Iano, Y.: A Look at Machine Learning in the Modern Age of Sustainable Future Secured Smart Cities. *Advanced Sciences and Technologies for Security Applications*, 359–383 (2021) https://doi.org/10.1007/978-3-030-72139-8_17

- [367] Izario, D., Iano, Y., Brancalhone, J., Izario, K., Gomes, G., Pajuelo, D.: UGVs - Applications in the Smart Cities (Angular 2+ and .Net Core 3+). *Smart Innovation, Systems and Technologies* **233**, 10–16 (2021) https://doi.org/10.1007/978-3-030-75680-2_2
- [368] Yogamoorthi, T., Estrela, V.V., Edoh, T.O., Razmjoooy, N., Khelassi, A., Hora, H.R.M., Oliveira, G.G., Vaz, G.C., Iano, Y.: Digital Garbage Bin Monitoring System (DGBMS): A Smart Garbage Monitoring and Management Cyber-Physical System. *Smart Innovation, Systems and Technologies* **233**, 488–497 (2021) https://doi.org/10.1007/978-3-030-75680-2_54
- [369] Lustosa, T.C., Iano, Y., Oliveira, G.G., Vaz, G.C., Reis, V.S.: Safety Management Applied to Smart Cities Design. *Smart Innovation, Systems and Technologies* **233**, 498–510 (2021) https://doi.org/10.1007/978-3-030-75680-2_55
- [370] Oliveira, G.G., Iano, Y., Vaz, G.C., Chuma, E.L., Gregio, R.P., Akkari, A.C.S.: Analysis of the Ergonomic Concept of Public Transportation in the City of Campinas (Brazil). *Lecture Notes in Networks and Systems* **270**, 453–459 (2021) https://doi.org/10.1007/978-3-030-80012-3_52
- [371] Barbosa, F.M., Ishii, R.P.: A Neural Network Approach to High Cost Patients Detection. *Lecture Notes in Computer Science* **12951 LNCS**, 527–540 (2021) https://doi.org/10.1007/978-3-030-86970-0_37
- [372] Souza, L.S., Santos Soares, M.: Design of Smart Cities Dimensions Using the SmartCitySysML Profile. *Lecture Notes in Computer Science* **12957 LNCS**, 69–83 (2021) https://doi.org/10.1007/978-3-030-87013-3_6
- [373] Salazar, L.R., Carrasco, I.G., Ramirez, A.R.G.: An IoT-based contribution to improve mobility of the visually impaired in Smart Cities. *Computing* **103**(6), 1233–1254 (2021) <https://doi.org/10.1007/s00607-021-00947-5>
- [374] Silvano, G.V.T., Ribeiro, V.C.T., Greati, V.R., Júnior, A.B.B., Silva, I.M.D., Endo, P.T., Lynn, T.: Synthetic image generation for training deep learning-based automated license plate recognition systems on the Brazilian Mercosur standard. *Design Automation for Embedded Systems* **25**(2), 113–133 (2021) <https://doi.org/10.1007/s10617-020-09241-7>
- [375] Santos, L., Sousa Cunha, B.R., Sousa Fé, I., Vieira, M., Silva, F.A.P.: Data Processing on Edge and Cloud: A Performability Evaluation and Sensitivity Analysis. *Journal Of Network and Systems Management* **29**(3) (2021) <https://doi.org/10.1007/s10922-021-09592-x>
- [376] Sampaio, H.V., Westphall, C.B., Koch, F.L., Nascimento Boing, R., Cruz, R.N.S.: Autonomic energy management with Fog Computing. *Computers and Electrical Engineering* **93**, 107246 (2021) <https://doi.org/10.1016/j.compeleceng.2021.107246>

- [377] Magalhães, R.P., Lettich, F., Macêdo, J.A., Nardini, F.M., Perego, R., Renso, C., Trani, R.: Speed prediction in large and dynamic traffic sensor networks. *Information Systems* **98**, 101444 (2021) <https://doi.org/10.1016/j.is.2019.101444>
- [378] Freitas Bezerra, D., Medeiros, V.W.C., Gonçalves, G.E.: Towards a control-as-a-service architecture for smart environments. *Simulation Modelling Practice and Theory* **107** (2021) <https://doi.org/10.1016/j.simpat.2020.102194>
- [379] Santana, E.F.Z., Covas, G., Duarte, F., Santi, P., Ratti, C., Kon, F.: Transitioning to a driverless city: Evaluating a hybrid system for autonomous and non-autonomous vehicles. *Simulation Modelling Practice and Theory* **107** (2021) <https://doi.org/10.1016/j.simpat.2020.102210>
- [380] Oliveira Malaquias, F.F., Silva Júnior, R.J.: The use of m-government applications: empirical evidence from the smartest cities of Brazil. *Information Technology and People* **34**(4), 1357–1369 (2021) <https://doi.org/10.1108/ITP-05-2020-0346>
- [381] Kamoi, R.N., Júnior, L.A.P., Verri, F.A.N., Marcondes, C.A.C., Ferreira, C.H.G., Meneguette, R.L., Cunha, A.M.: Platoon Grouping Network Offloading Mechanism for VANETs. *IEEE Access* **9**, 53936–53951 (2021) <https://doi.org/10.1109/ACCESS.2021.3071085>
- [382] Oliveira, L.F.P., Manera, L.T., Luz, P.D.G.: Development of a Smart Traffic Light Control System With Real-Time Monitoring. *IEEE Internet of Things Journal* **8**(5), 3384–3393 (2021) <https://doi.org/10.1109/JIOT.2020.3022392>
- [383] Magaia, N., Fonseca, R., Muhammad, K., Segundo, A.H.F.N., Neto, A.V.L., Albuquerque, V.H.C.: Industrial Internet-of-Things Security Enhanced With Deep Learning Approaches for Smart Cities. *IEEE Internet of Things Journal* **8**(8), 6393–6405 (2021) <https://doi.org/10.1109/JIOT.2020.3042174>
- [384] Nascimento Junior, G.L., Sousa Freitas, C.G., Rosso, O.A., Aquino, A.L.L.: Data Sampling Algorithm Based on Complexity-Entropy Plane for Smart Sensing Applications. *IEEE Sensors Journal* **21**(22), 25831–25842 (2021) <https://doi.org/10.1109/JSEN.2021.3116548>
- [385] Muhammad, K., Hussain, T., Rodrigues, J.J.P.C., Bellavista, P., Macêdo, A.R.L., Albuquerque, V.H.C.: Efficient and Privacy Preserving Video Transmission in 5G-Enabled IoT Surveillance Networks: Current Challenges and Future Directions. *IEEE Network* **35**(2), 26–33 (2021) <https://doi.org/10.1109/MNET.011.1900514>
- [386] Sodhro, A.H., Rodrigues, J.J.P.C., Pirbhulal, S., Zahid, N., Macêdo, A.R.L., Albuquerque, V.H.C.: Link Optimization in Software Defined IoV Driven

- Autonomous Transportation System. *IEEE Transactions on Intelligent Transportation Systems* **22**(6), 3511–3520 (2021) <https://doi.org/10.1109/TITS.2020.2973878>
- [387] Viegas, F., Barbosa, J.L.V., Kunst, R., Heckler, W.F.: UFollower: A Model for Smart Cities Based on Ubiquitous Security and Surveillance. *IEEE Latin America Transactions* **19**(12), 2019–2027 (2021) <https://doi.org/10.1109/TLA.2021.9480143>
 - [388] Sousa Celes, C.S.F., Boukerche, A., Loureiro, A.A.F.: Mobility Trace Analysis for Intelligent Vehicular Networks: Methods, Models, and Applications. *ACM Computing Surveys* **54**(3) (2021) <https://doi.org/10.1145/3446679>
 - [389] Meneguette, R.I., Grande, R.E.D., Ueyama, J., Filho, G.P.R., Madeira, E.R.M.: Vehicular Edge Computing: Architecture, Resource Management, Security, and Challenges. *ACM Computing Surveys* **55**(1) (2021) <https://doi.org/10.1145/3485129>
 - [390] Sousa Silva, F.S., Balieiro, A.M., Mendonça Junior, F.F., Dias, K.L., Guarda, P.: A Conformance Testing Methodology and System for Cognitive Radios. *Wireless Communications and Mobile Computing* **2021** (2021) <https://doi.org/10.1155/2021/8869104>
 - [391] Xia, X., Ji, S., Vijayakumar, P., Shen, J., Rodrigues, J.J.P.C.: An efficient anonymous authentication and key agreement scheme with privacy-preserving for smart cities. *International Journal of Distributed Sensor Networks* **17**(6) (2021) <https://doi.org/10.1177/15501477211026804>
 - [392] Martins, T.G., Lago, N.P., Santana, E.F.Z., Telea, A., Kon, F., Souza, H.A.: Using bundling to visualize multivariate urban mobility structure patterns in the Sao Paulo Metropolitan Area. *Journal of Internet Services and Applications* **12**(1) (2021) <https://doi.org/10.1186/s13174-021-00136-9>
 - [393] Camargo, E.T., Spanhol, F.A., Souza: Deployment of a LoRaWAN network and evaluation of tracking devices in the context of smart cities. *Journal of Internet Services and Applications* **12**(1) (2021) <https://doi.org/10.1186/s13174-021-00138-7>
 - [394] Rolt, C.R., Silva Dias, J., Gomes, E.H.A., Almeida Buosi, M.: Crowdsensing campaigns management in smart cities. *International Journal of Grid and Utility Computing* **12**(2, SI), 192–204 (2021) <https://doi.org/10.1504/IJGUC.2021.114818>
 - [395] Telles, M.J., Santos, R., Silva, J.M., Rosa Righi, R., Barbosa, J.L.V.: An intelligent model to assist people with disabilities in smart cities. *Journal of Ambient Intelligence and Smart Environments* **13**(4), 301–324 (2021) <https://doi.org/10.3233/AIS-210606>

- [396] Ochôa, I.S., Leithardt, V.R.Q., Calbusch, L., Paz Santana, J.F., Parreira, W.D., Seman, L.O., Zeferino, C.A.: Performance and security evaluation on a blockchain architecture for license plate recognition systems. *Applied Sciences (Switzerland)* **11**(3), 1–21 (2021) <https://doi.org/10.3390/app11031255>
- [397] Gonçalves, I., Rodrigues, L.A., Silva, F.A.P., Nguyen, T.A., Min, D., Lee, J.W.: Surveillance System in Smart Cities: A Dependability Evaluation Based on Stochastic Models. *Electronics (Switzerland)* **10**(8) (2021) <https://doi.org/10.3390/electronics10080876>
- [398] Rocha Neto, A.F., Silva, T.P., Batista, T.V., Delicato, F.C., Figueiredo Pires, P., Silva Lopes, F.A.: Leveraging Edge Intelligence for Video Analytics in Smart City Applications. *Information (Switzerland)* **12**(1), 1–26 (2021) <https://doi.org/10.3390/info12010014>
- [399] Souza Pereira Borges, F., Fonseca, A.P., Garcia, R.C.: Deep reinforcement learning model to mitigate congestion in real-time traffic light networks. *Infrastructures* **6**(10) (2021) <https://doi.org/10.3390/infrastructures6100138>
- [400] Santana, G.M.D., Cristo, R.S., Branco, K.R.L.J.C.: Integrating Cognitive Radio with Unmanned Aerial Vehicles: An Overview. *Sensors* **21**(3), 1–27 (2021) <https://doi.org/10.3390/s21030830>
- [401] Ferreira, C.M.S., Garrocho, C.T.B., Oliveira, R.A.R., Silva, J.S., Cunha Cavalcanti, C.F.M.: IoT registration and authentication in smart city applications with blockchain. *Sensors* **21**(4), 1–23 (2021) <https://doi.org/10.3390/s21041323>
- [402] Yabczynski, E., Brante, G., Souza, R.D., Sánchez, S.M.: Energy efficient probabilistic switching ON–OFF operation in multiantenna cooperative wireless sensor networks. *Sensors* **21**(9) (2021) <https://doi.org/10.3390/s21092937>
- [403] Salazar-Carrillo, J., Ruiz, M.T., Junior, C.A.D., Quintero, R., Ibarra, M.M., Guzmán, G.: Traffic congestion analysis based on a web-gis and data mining of traffic events from twitter. *Sensors* **21**(9) (2021) <https://doi.org/10.3390/s21092964>
- [404] Alomari, E., Katib, I.A., Albeshri, A., Yigitcanlar, T., Mehmood, R.: Iktishaf+: A big data tool with automatic labeling for road traffic social sensing and event detection using distributed machine learning. *Sensors* **21**(9) (2021) <https://doi.org/10.3390/s21092993>
- [405] Cabrini, F.H., Filho, F.V., Rito, P., Barros Castro Filho, A., Sargento, S., Neto, A.J.V., Kofuji, S.T.: Enabling the industrial internet of things to cloud continuum in a real city environment. *Sensors* **21**(22) (2021) <https://doi.org/10.3390/s21227707>
- [406] Coelho, V.N., Oliveira, T.A., Tavares, W., Coelho, I.M.: Smart accounts for

- decentralized governance on smart cities. *Smart Cities* **4**(2), 881–893 (2021) <https://doi.org/10.3390/smartcities4020045>
- [407] Oliveira, F.L.S., Costa, D.G., Lima, L.C., Silva, I.M.D.: Ibikesafe: A multi-parameter system for monitoring, evaluation and visualization of cycling paths in smart cities targeted at cycling adverse conditions. *Smart Cities* **4**(3), 1058–1086 (2021) <https://doi.org/10.3390/smartcities4030056>
- [408] Yigitcanlar, T., Mehmood, R., Corchado, J.M.: Green artificial intelligence: towards an efficient, sustainable and equitable technology for smart cities and futures. *Sustainability (Switzerland)* **13**(16) (2021) <https://doi.org/10.3390/su13168952>
- [409] Oliveira Lima, J.P., Figueiredo, C.M.S.: A temporal fusion approach for video classification with convolutional and LSTM neural networks applied to violence detection. *Inteligencia Artificial* **24**(67), 40–50 (2021) <https://doi.org/10.4114/intartif.vol24iss67pp40-50>
- [410] Kniess, J., Rutke, J.C., Castañeda, W.A.C.: An IoT Transport Architecture for Passenger Counting: A Real Implementation. In: *IFIP/IEEE International Symposium on Integrated Network Management*, pp. 613–617 (2021)
- [411] Hayashi, V.T., Ribeiro, C.M.N., Silva Filho, A.Q., Pita, M.A.B., Trazzi, B.M., Estrella, J.C., Ruggiero, W.V.: Improving IoT Module Testability with Test-Driven Development and Machine Learning. In: *International Conference on Future Internet of Things and Cloud*, pp. 406–412 (2021). <https://doi.org/10.1109/FiCloud49777.2021.00066>
- [412] Oliveira, F.L.S., Costa, D.G.: Toward Sustainable Cycling: Modelling and Visualization Issues of Cycle Paths for IoT-based Sensing. In: *IEEE Globecom Workshops*, pp. 1–6 (2021). <https://doi.org/10.1109/GCWkshps52748.2021.9682043>
- [413] Costa, D.G., Peixoto, J.P.J.: On the mathematical modelling of visual sensors when computing coverage metrics in camera-based sensing applications. In: *IEEE International Conference on Automation e Congress of the Chilean Association of Automatic Control*, pp. 1–6 (2021). <https://doi.org/10.1109/ICAACCA51523.2021.9465185>
- [414] Merege, D.A., Almeida, R.P.: Natural Language Processing to forecast 2020 Chilean national plebiscite results: a Daoura project. In: *International Conference on Electrical, Communication, and Computer Engineering*, pp. 1–5 (2021). <https://doi.org/10.1109/ICECCE52056.2021.9514149>
- [415] Svaigen, A.R., Bine, L.M.S., Pappa, G.L., Aylon, L.B.R., Loureiro, A.A.F.: Automatic Drone Identification Through Rhythm-based Features for the Internet of Drones. In: *IEEE International Conference on Tools with Artificial*

- Intelligence, pp. 1417–1421 (2021). <https://doi.org/10.1109/ICTAI52525.2021.00225>
- [416] Souza Lobato, E.P., Souza, A.C.D.B., Muse, L.P., Bezerra, U.H., Lima Tostes, M.E., Paixão, U.C., Silva Fonseca, W., Cerqueira, E.C., Nascimento, A.A.D.: Smart City: application of the ABNT NBR ISO 37122:2020 Standard in the University City of UFPA. In: IEEE International Conference on Industry Applications, pp. 1258–1265 (2021). <https://doi.org/10.1109/INDUSCON51756.2021.9529522>
 - [417] Freitas Carvalho, L.F.D., Damasceno, L.W.S., Graça, U., Pinto, M.F., Melo, A.G., Botelho, D.F., Moraes, C.A.: An Economic Evaluation of an Intelligent Street Lighting System for Smart Cities Context and Applications. In: IEEE International Conference on Industry Applications, pp. 1340–1345 (2021). <https://doi.org/10.1109/INDUSCON51756.2021.9529688>
 - [418] Santos, A.S., Corsi, A.C., Almeida, R.Z.H., Noda, M.K., Gonçalves, I., Ribeiro, R.N., Machado, C.D.O., Polkorny, M., Otero, M.D., Abreu, A.E.S., Silva Azevedo, C., Mesquita Spinola, M.: Feasibility study for detecting shallow landslides using IoT devices in smart cities. In: IEEE International Smart Cities Conference, pp. 1–6 (2021). <https://doi.org/10.1109/ISC253183.2021.9562839>
 - [419] Santos Junior, R., Coelho, J.V.V., Cacho, N.A.A.: A Macrocause Classification Model for Violent Crime Analysis in the Field of Public Safety Based on Machine Learning Techniques. In: IEEE International Smart Cities Conference, pp. 1–7 (2021). <https://doi.org/10.1109/ISC253183.2021.9562842>
 - [420] Lago, T.K., González, E.R., Campista, M.E.M.: Towards a Real-time System based on Regression Model to Evaluate Driver’s Attention. In: IEEE International Smart Cities Conference (2021). <https://doi.org/10.1109/ISC253183.2021.9562886>
 - [421] Loureiro, L.C., Muniz, C.R., Marco Pereira, C., Paseto, L., Martinez, M., Alves, A.M.: A new methodology for smart cities in developing countries: a case study. In: IEEE International Smart Cities Conference, pp. 1–6 (2021). <https://doi.org/10.1109/ISC253183.2021.9562923>
 - [422] Paseto, L., Gontijo, J.G.S., Azambuja, E.E.D., Vidal, K.D.B., Alves, A.M., Muniz, C.R., Marco Pereira, C., Loureiro, C.F.C.L., Corso, M.R.M.M.: *inteli.gente* Platform: Tool for Diagnosing Maturity in Brazilian Sustainable Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–6 (2021). <https://doi.org/10.1109/ISC253183.2021.9562934>
 - [423] Costa, D.G., Vasques, F., Portugal, P.: A Mathematical Model to Evaluate Visual Sensing Coverage of Emergency Signs on Moving Vehicles. In: IEEE International Smart Cities Conference, pp. 1–7 (2021). <https://doi.org/10.1109/ISC253183.2021.9562945>

- [424] Rodrigues, M., Branco, K.R.L.J.C.: Enabling UAV Services in the IoT with HAMSTER. In: IEEE Symposium on Computers and Communication, pp. 1–6 (2021). <https://doi.org/10.1109/ISCC53001.2021.9631461>
- [425] Medeiros, T.C., Souza Soares, E.F., Campos, C.A.V.: An Intelligent Transportation System Application using Mobile Edge Computing. In: IEEE Symposium on Computers and Communication, pp. 1–6 (2021). <https://doi.org/10.1109/ISCC53001.2021.9631498>
- [426] Silva, F.A.C., Villibor, J.P., Silva Almeida, T.A., Bonatto, B.D., Ribeiro, P.F.: Smart Cities Criteria: A Discussion About Relevant and Contextualized Indicators for Sustainable Smart Living. In: IEEE PES Innovative Smart Grid Technologies Conference - Latin America, pp. 1–5 (2021). <https://doi.org/10.1109/ISGTLatinAmerica52371.2021.9543019>
- [427] Lieira, D.D., Quessada, M.S., Costa, J.B.D., Cerqueira, E.C., Rosário, D.L., Meneguette, R.I.: TOVEC: Task Optimization Mechanism for Vehicular Clouds using Meta-heuristic Technique. In: International Wireless Communications and Mobile Computing, pp. 358–363 (2021). <https://doi.org/10.1109/IWCMC51323.2021.9498784>
- [428] Mosaiyebzadeh, F., Rodriguez, L.G.A., Batista, D.M., Júnior, R.H.: A Network Intrusion Detection System using Deep Learning against MQTT Attacks in IoT. In: IEEE Latin-American Conference on Communications, pp. 1–6 (2021). <https://doi.org/10.1109/LATINCOM53176.2021.9647850>
- [429] Zareb, M., Bakhti, B., Bouzid, Y., Batista, C.E., Ternifi, I., Abdenour, M.: An Intelligent IoT Fuzzy Based Approach for Automated Indoor Air Quality Monitoring. In: Mediterranean Conference on Control and Automation, pp. 770–775 (2021). <https://doi.org/10.1109/MED51440.2021.9480313>
- [430] Oliveira, F.L.S., Costa, D.G., Silva, I.M.D., Andrade, P.H.M., Dias, A.M.: MSensorMob: A Multi-Sensors Hardware Framework to Support the Development of Adaptable Monitoring Units in Mobile Applications. In: IEEE International Workshop on Metrology for Industry 4.0 & IoT, pp. 648–653 (2021). <https://doi.org/10.1109/MetroInd4.0IoT51437.2021.9488435>
- [431] Melo, P.C.F.: A model-driven middleware approach to reduce the semantic gap between application domains and the generic infrastructure of smart cities. In: International Conference on Model-Driven Engineering Languages and Systems, pp. 672–677 (2021). <https://doi.org/10.1109/MODELS-C53483.2021.00108>
- [432] Carvalho, F.O., Endler, M.: Towards Programming participatory IoT applications with mobility for Smart Cities. In: IEEE International Conference on Pervasive Computing and Communications Workshops, pp. 533–538 (2021). <https://doi.org/10.1109/PERCOMWORKSHOPS51409.2021.9431033>

- [433] Pastório, A.F., Camargo, E.T.: Geolocation Techniques in LoRaWan Networks as a Fault Tolerance Approach in GPS-Based Tracking Devices. In: South American Colloquium on Visible Light Communications, pp. 01–06 (2021). <https://doi.org/10.1109/SACVLC53127.2021.9652345>
- [434] Rangel, E.O., Costa, D.G., Peixoto, M.L.M.: An Optimization Approach for Emergency Vehicles Dispatching and Traffic Lights Adjustments in Response to Emergencies in Smart Cities. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–8 (2021). <https://doi.org/10.1109/SBESC53686.2021.9628243>
- [435] Ambrósio, L.P., Paulino, P.L.S., Antiquera, J.P.D., Aquino, G.P., Boas, E.C.V.: EcoWaste: A Smart Waste Platform Enabling Circular Economy. In: IEEE Student Conference on Research and Development, pp. 411–415 (2021). <https://doi.org/10.1109/SCoReD53546.2021.9652721>
- [436] Nascimento, P.P.L.L., Lam, C.T., Ng, B., Guidoni, D.L., Curado, M., Villas, L.A.: Airtime Aware Dynamic Network Slicing for Heterogeneous IoT Services in IEEE 802.11ah. In: IEEE Wireless Communications and Networking Conference, pp. 1–6 (2021). <https://doi.org/10.1109/WCNC49053.2021.9417414>
- [437] Monteiro, M.S., Caldas Filho, F.L., Souza, P., Costa, V.S., Luz, G.P.C.P., Oliveira Carvalho, L.F., Sousa Junior, R.T.: Solid waste management and monitoring system for smart cities: development of a low-cost sustainable IoT architecture using GPRS/GSM. In: Workshop on Communication Networks and Power Systems, pp. 1–6 (2021). <https://doi.org/10.1109/WCNPS53648.2021.9626317>
- [438] Reis, L.C.D., Bernardini, F.C., Ferreira, S.B.L., Cappelli, C.: An ICT governance analysis for the digital and smart transformation of Brazilian municipalities. In: Annual International Conference on Digital Government Research, pp. 327–338 (2021). <https://doi.org/10.1145/3463677.3463729>
- [439] R, D.K., Chavhan, S., Gupta, D., Khanna, A., Rodrigues, J.J.P.C.: An intelligent self-learning drone assistance approach towards V2V communication in smart city. In: ACM MobiCom Workshop on Drone Assisted Wireless Communications for 5G and Beyond, pp. 19–24 (2021). <https://doi.org/10.1145/3477090.3481050>
- [440] Reis, L.C.D., Bernardini, F.C., Ferreira, S.B.L., Cappelli, C.: Exploring the Challenges of ICT Governance in Brazilian Smart Cities. In: International Conference on Theory and Practice of Electronic Governance, pp. 429–435 (2021). <https://doi.org/10.1145/3494193.3494251>
- [441] Steinmetz, C., Schroeder, G.N., Rettberg, A., Rodrigues, R.N., Pereira, C.E.: Enabling and supporting car-as-a-service by digital twin modeling and deployment. In: Design, Automation and Test in Europe - Conference and Exhibition, pp. 428–433 (2021). <https://doi.org/10.23919/DATE51398.2021.9474248>

- [442] Silva Veloso, A.F., Silveira, J.D.F., Moura, M.C.L., Reis Junior, J.V., Andrade Lira Rabelo, R., Rodrigues, J.J.P.C.: Performance Analysis of LoRaWAN in an Air Quality Monitoring Applications for Smart Cities. In: International Conference on Smart and Sustainable Technologies, pp. 1–6 (2021). <https://doi.org/10.23919/SpliTech52315.2021.9566392>
- [443] Marinho, M.A.M., Vinel, A., Freitas, E.P., Fernandez, S.M.A.: Cooperative Localization for the Internet of Things. In: Annual Conference On Wireless On-Demand Network Systems And Services Conference, pp. 95–99 (2021). <https://doi.org/10.23919/WONS51326.2021.9415583>
- [444] Maieron, M.A., Oliveira, J.P.M.: Open Data Integration in 3D CityGML-based Models Generation. In: International Conference on Enterprise Information Systems, pp. 167–174 (2021). <https://doi.org/10.5220/0010383201670174>
- [445] Costa, F.S., Nassar, S.M., Dantas, M.A.R.: GoAT: A Sensor Ranking Approach for IoT Environments. In: International Conference on Cloud Computing and Services Science, pp. 169–177 (2021). <https://doi.org/10.5220/0010403801690177>
- [446] Christóvão, R.M., Júnior, W.E.M., Eler, D.M.: PlaceProfile: Employing Visual and Cluster Analysis to Profile Regions based on Points of Interest. In: International Conference on Enterprise Information Systems, pp. 506–514 (2021). <https://doi.org/10.5220/0010453405060514>
- [447] Rocha Neto, A.F., Silva, T.P., Batista, T.V., Silva Lopes, F.A., Delicato, F.C., Figueiredo Pires, P.: Optimizing Resource Allocation in Edge-distributed Stream Processing. In: International Conference on Web Information Systems and Technologies, pp. 156–166 (2021). <https://doi.org/10.5220/0010714700003058>
- [448] Queiroz, T.A., Canali, C., Iori, M., Lancellotti, R.: An Optimization View to the Design of Edge Computing Infrastructures for IoT Applications. Internet of Things, 1–30 (2022) https://doi.org/10.1007/978-3-030-80821-1_1
- [449] Netto, R.S., Abreu Faria, L., Lochter, J.V., Filho, E.R., Azevedo Rodrigues, G.A.: Facens Smart Campus Integrated Dashboard: A Use Case Applied for Energy Efficiency. EAI/Springer Innovations in Communication and Computing, 67–88 (2022) https://doi.org/10.1007/978-3-030-84182-9_5
- [450] Gaurav, A., Gupta, B.B., Peñalvo, F.J.G., Nedjah, N., Psannis, K.E.: DDoS Attack Detection in Vehicular Ad-Hoc Network (VANET) for 5G Networks. Studies in Big Data **95**, 263–278 (2022) https://doi.org/10.1007/978-3-030-85428-7_11
- [451] Souza Salles, R., Ribeiro, P.F.: Smart Cities, Connected World, and Internet of Things. Internet of Things, 17–33 (2022) https://doi.org/10.1007/978-3-030-89328-6_2

- [452] Oliveira, W.G., Filho, P.P.R., Silva Júnior, E.T.: Driver Behavior Analysis: Abnormal Driving Detection Using MLP Classifier Applied to Outdoor Camera Images. *Lecture Notes in Networks and Systems* **418 LNNS**, 1142–1152 (2022) https://doi.org/10.1007/978-3-030-96308-8_106
- [453] Silva Moraes, I., Almeida Guimarães, V., Silva, E.B., Silva, P.H.G.: Prescriptive Analytics in Smart Cities: A Combinatorial Approach in Rescue Operations. *Communications in Computer and Information Science* **1555 CCIS**, 131–145 (2022) https://doi.org/10.1007/978-3-030-96753-6_10
- [454] Sena, Y.A.B.L., Dias, K.L.: Native Versus Overlay-Based NDN over Wi-Fi 6 for the Internet of Vehicles. *Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering* **424 LNICST**, 51–63 (2022) https://doi.org/10.1007/978-3-030-97124-3_5
- [455] Santos, P.A., Iano, Y., Jordão, K.C.P., Vaz, G.C., Oliveira, G.G., Sampaio, I.A., Chuma, E.L.: Analysis of the Relationship Between Maturity Indicators Using the Multivariate Linear Regression: A Case Study in the Brazilian Cities. *Lecture Notes on Data Engineering and Communications Technologies* **125**, 203–210 (2022) https://doi.org/10.1007/978-3-030-97874-7_26
- [456] Rocha, F.W.C., Fukuda, J.C., Camargo Francesquini, E., Angelis Cordeiro, D.: Accelerating Smart City Simulations. *Communications in Computer and Information Science* **1540 CCIS**, 148–162 (2022) https://doi.org/10.1007/978-3-031-04209-6_11
- [457] Oliveira, G.G., Iano, Y., Vaz, G.C., Negrete, P.D.M., Negrete, J.C.M., Chuma, E.L.: Intelligent Mobility: A Proposal for Modeling Traffic Lights Using Fuzzy Logic and IoT for Smart Cities. *Communications in Computer and Information Science* **1572 CCIS**, 302–311 (2022) https://doi.org/10.1007/978-3-031-05767-0_24
- [458] Bomfim, T.S., Oliveira Nunes, Sánchez: Art Graffiti Detection in Urban Images Using Deep Learning. *Intelligent Systems Reference Library* **224**, 1–20 (2022) https://doi.org/10.1007/978-3-031-06307-7_1
- [459] Moran, M.B.H., Conci, A., Sánchez: Automatic Detection of Knives in Complex Scenes. *Intelligent Systems Reference Library* **224**, 57–77 (2022) https://doi.org/10.1007/978-3-031-06307-7_4
- [460] Silva Ulian, J.P., Silva, L.C.P., Oliveira, G.G., Cypriano, J.G.I., Iano, Y., Vaz, G.C.: Telemanagement and Its Benefits to Energy, Environment, and Society: A Case Study in Street Lighting. *Smart Innovation, Systems and Technologies* **295 SIST**, 178–187 (2022) https://doi.org/10.1007/978-3-031-08545-1_16
- [461] Lima, L.B., Iano, Y., Noritomi, P.Y., Oliveira, G.G., Vaz, G.C.: Data Security,

- Privacy, and Regulatory Issues: A Conceptual Approach to Digital Transformation to Smart Cities. *Smart Innovation, Systems and Technologies* **295** *SIST*, 256–263 (2022) https://doi.org/10.1007/978-3-031-08545-1_24
- [462] De, D., Karmakar, A., Banerjee, P.S., Bhattacharyya, S., Rodrigues, J.J.P.C.: BCoT: Introduction to Blockchain-Based Internet of Things for Industry 5.0. *Lecture Notes on Data Engineering and Communications Technologies* **112**, 1–22 (2022) https://doi.org/10.1007/978-981-16-9260-4_1
- [463] Monte Lima, J.P.S., Roberto, R.A., Figueiredo, L.S., Simões, F.P.M., Thomas, D., Uchiyama, H., Teichrieb, V.: 3D pedestrian localization using multiple cameras: a generalizable approach. *Machine Vision and Applications* **33**(4) (2022) <https://doi.org/10.1007/s00138-022-01323-9>
- [464] Jain, S., Gupta, S., Sreelakshmi, K., Rodrigues, J.J.P.C.: Fog computing in enabling 5G-driven emerging technologies for development of sustainable smart city infrastructures. *Cluster Computing: the Journal of Networks, Software Tools and Applications* **25**(2), 1111–1154 (2022) <https://doi.org/10.1007/s10586-021-03496-w>
- [465] Silva, D.E.O.G., Heideker, A., Zyrianoff, I.D.R., Kleinschmidt, J.H., Roffia, L., Soininen, J., Kamienski, C.A.: A Management Architecture for IoT Smart Solutions: Design and Implementation. *Journal Of Network and Systems Management* **30**(2) (2022) <https://doi.org/10.1007/s10922-022-09648-6>
- [466] Bento, F.R.O., Vassallo, R.F., Samatelo, J.L.A.: Anomaly Detection on Public Streets Using Spatial Features and a Bidirectional Sequential Classifier. *Journal of Control, Automation and Electrical Systems* **33**(1), 156–166 (2022) <https://doi.org/10.1007/s40313-021-00817-7>
- [467] Vieira, R.P., Argento, E.V., Revoredo, T.C.: An Autonomous Parallel Parking Algorithm for Car-like Mobile Robots. *Journal of Control, Automation and Electrical Systems* **33**(6), 1762–1772 (2022) <https://doi.org/10.1007/s40313-022-00924-z>
- [468] Barros, J.L.V., Monteiro, M.E.P., Santi Peron, G., Moritz, G.L., Rayel, O.K., Souza, R.D.: LoRaWAN vs. 6TiSCH: Which one scales better? *Computer Communications* **184**, 1–11 (2022) <https://doi.org/10.1016/j.comcom.2021.12.004>
- [469] Costa, S.D., Barcellos, M.P., Almeida Falbo, R., Conte, T.U., Oliveira, K.M.: A core ontology on the Human–Computer Interaction phenomenon. *Data & Knowledge Engineering* **138**, 101977 (2022) <https://doi.org/10.1016/j.datak.2021.101977>
- [470] Silva, J.P., Batista, T.V., Sousa Cavalcante, E.R., Souza, A.E.C., Silva Lopes,

- F.A., Cacho, N.A.A.: A platform for integrating heterogeneous data and developing smart city applications. *Future Generation Computer Systems* **128**, 552–566 (2022) <https://doi.org/10.1016/j.future.2021.10.030>
- [471] Ullah, W., Ullah, A., Hussain, T., Muhammad, K., Heidari, A.A., Ser, J.D., Baik, S.W., Albuquerque, V.H.C.: Artificial Intelligence of Things-assisted two-stream neural network for anomaly detection in surveillance Big Video Data. *Future Generation Computer Systems* **129**, 286–297 (2022) <https://doi.org/10.1016/j.future.2021.10.033>
- [472] Oliveira Antes, T., Bazzan, A.L.C., Tavares, A.R.: Information upwards, recommendation downwards: reinforcement learning with hierarchy for traffic signal control. *Procedia Computer Science* **201**(C), 24–31 (2022) <https://doi.org/10.1016/j.procs.2022.03.006>
- [473] Salazar, R.S., Scalabrin, E.E., Corchado, F.F.R.: Cognitive Architecture Configuration Model for Performing Dynamic Pervasive Service Composition. *Procedia Computer Science* **213**(C), 728–737 (2022) <https://doi.org/10.1016/j.procs.2022.11.127>
- [474] Júnior, E.L.M., Coelho, V.N., Coelho, I.M., Menezes Frota, Y.A., Koochaksaraei, R.H., Ochi, L.S., Coelho, B.N.: UAVs routes optimization on smart cities and regions. *RAIRO - Operations Research* **56**(2), 853–869 (2022) <https://doi.org/10.1051/ro/2022036>
- [475] Oliveira Simoyama, F., Tomás, L.R., Pinto, F.M., Neto, L.L.S., Santos, L.B.L.: Optimal rain gauge network to reduce rainfall impacts on urban mobility, a spatial sensitivity analysis. *Industrial Management and Data Systems* **122**(10), 2261–2280 (2022) <https://doi.org/10.1108/IMDS-03-2022-0145>
- [476] Roca, D.E., Diez, M.A., Pany, T., Antreich, F., Salcedo, J.A.L., Paonni, M., Granados, G.S.: GNSS User Technology: State-of-the-Art and Future Trends. *IEEE Access* **10**, 39939–39968 (2022) <https://doi.org/10.1109/ACCESS.2022.3165594>
- [477] Wang, S., Liu, X., Liu, S., Muhammad, K., Heidari, A.A., Ser, J.D., Albuquerque, V.H.C.: Human Short Long-Term Cognitive Memory Mechanism for Visual Monitoring in IoT-Assisted Smart Cities. *IEEE Internet of Things Journal* **9**(10), 7128–7139 (2022) <https://doi.org/10.1109/JIOT.2021.3077600>
- [478] Ghosh, R., Marecek, J., Griggs, W.M., Souza, M., Shorten, R.: Predictability and Fairness in Social Sensing. *IEEE Internet of Things Journal* **9**(1), 37–54 (2022) <https://doi.org/10.1109/JIOT.2021.3085368>
- [479] Silva Batalha, I., Lopes, A.V.R., Lima, W.G., Barbosa, Y.H.S., Alcântara Neto, M.C., Barros, F.J.B., Santos Cavalcante, G.P.: Large-Scale Modeling and Analysis of Uplink and Downlink Channels for LoRa Technology in Suburban

- Environments. *IEEE Internet of Things Journal* **9**(23), 24477–24491 (2022) <https://doi.org/10.1109/JIOT.2022.3191639>
- [480] Mattos, E.P., Domingues, A.C.S.A., Santos, B.P., Filho, H.S.R., Loureiro, A.A.F.: The Impact of Mobility on Location Privacy: A Perspective on Smart Mobility. *IEEE Systems Journal* **16**(4), 5509–5520 (2022) <https://doi.org/10.1109/JSYST.2022.3147808>
 - [481] Manogaran, G., Rodrigues, J.J.P.C., Kozlov, S.A., Manokaran, K.: Conditional Support-Vector-Machine-Based Shared Adaptive Computing Model for Smart City Traffic Management. *IEEE Transactions on Computational Social Systems* **9**(1), 174–183 (2022) <https://doi.org/10.1109/TCSS.2021.3051330>
 - [482] Steinmetz, C., Schroeder, G.N., Rodrigues, R.N., Rettberg, A., Pereira, C.E.: Key-Components for Digital Twin Modeling With Granularity: Use Case Car-as-a-Service. *IEEE Transactions on Emerging Topics in Computing* **10**(1), 23–33 (2022) <https://doi.org/10.1109/TETC.2021.3131532>
 - [483] Ullah, F.U.M., Muhammad, K., Haq, I.U., Khan, N., Heidari, A.A., Baik, S.W., Albuquerque, V.H.C.: AI-Assisted Edge Vision for Violence Detection in IoT-Based Industrial Surveillance Networks. *IEEE Transactions on Industrial Informatics* **18**(8), 5359–5370 (2022) <https://doi.org/10.1109/TII.2021.3116377>
 - [484] Ferreira, D.L., Nunes, B.A.A., Campos, C.A.V., Obraczka, K.: User Community Identification Through Fine-Grained Mobility Records for Smart City Applications. *IEEE Transactions on Intelligent Transportation Systems* **23**(5), 4387–4401 (2022) <https://doi.org/10.1109/TITS.2020.3044328>
 - [485] Santana, L.H.Z., Santos Mello, R.: Persistence of RDF Data into NoSQL: A Survey and a Reference Architecture. *IEEE Transactions on Knowledge and Data Engineering* **34**(3), 1370–1389 (2022) <https://doi.org/10.1109/TKDE.2020.2994521>
 - [486] Jodas, D.S., Yojo, T., Brazolin, S., Velasco, G.D.N., Papa, J.P.: Detection of Trees on Street-View Images Using a Convolutional Neural Network. *International Journal of Neural Systems* **32**(1) (2022) <https://doi.org/10.1142/S0129065721500428>
 - [487] Chavhan, S., Gupta, D., Gochhayat, S.P., N., C.B., Khanna, A., Shankar, K., Rodrigues, J.J.P.C.: Edge Computing AI-IoT Integrated Energy-efficient Intelligent Transportation System for Smart Cities. *ACM Transactions On Internet Technology* **22**(4) (2022) <https://doi.org/10.1145/3507906>
 - [488] Melo, S.R.M., Oliveira, F.T.G., Silva, C.A., Queiroz Lopes, P.H., Aquino Júnior, G.S.: OffFog: An Approach to Support the Definition of Offloading Policies on Fog Computing. *Wireless Communications and Mobile Computing* **2022** (2022) <https://doi.org/10.1155/2022/5331712>

- [489] Castro, L.F.S., Manoel, F.C.P.B., Jesus, V.S., Pantoja, C.E., Borges, A.P., Alves, G.V.: Integrating Embedded Multiagent Systems with Urban Simulation Tools and IoT Applications. *Revista de Informatica Teorica e Aplicada* **29**(1), 81–90 (2022) <https://doi.org/10.22456/2175-2745.110837>
- [490] Ferreira, A.C.D., Titotto, S.L.M.C., Akkari, A.C.S.: Urban Agriculture 5.0: An Exploratory Approach to the Food System in a Super Smart Society. *International Journal of Mathematical, Engineering and Management Sciences* **7**(4), 455–475 (2022) <https://doi.org/10.33889/IJMEMS.2022.7.4.030>
- [491] Jesus, T.C., Costa, D.G., Portugal, P., Vasques, F.: A Survey on Monitoring Quality Assessment for Wireless Visual Sensor Networks. *Future Internet* **14**(7) (2022) <https://doi.org/10.3390/fi14070213>
- [492] Costa, F.S., Nassar, S.M., Dantas, M.A.R.: FOCUSeR: A Fog Online Context-Aware Up-to-Date Sensor Ranking Method. *Journal Of Sensor and Actuator Networks* **11**(2) (2022) <https://doi.org/10.3390/jsan11020025>
- [493] Hayashi, V.T., Ruggiero, W.V., Estrella, J.C., Silva Filho, A.Q., Pita, M.A.B., Arakaki, R., Ribeiro, C.M.N., Trazzi, B.M., Júnior, R.B.: A TDD Framework for Automated Monitoring in Internet of Things with Machine Learning †. *Sensors* **22**(23) (2022) <https://doi.org/10.3390/s22239498>
- [494] Schiavo, F.T., Magalhães, C.F.: Smart Sustainable Cities: The Essentials for Managers’ and Leaders’ Initiatives within the Complex Context of Differing Definitions and Assessments. *Smart Cities* **5**(3), 994–1024 (2022) <https://doi.org/10.3390/smartcities5030050>
- [495] Gumz, J., Fettermann, D.C., Frazzon, E.M., Kück, M.: Using Industry 4.0’s Big Data and IoT to Perform Feature-Based and Past Data-Based Energy Consumption Predictions. *Sustainability (Switzerland)* **14**(20) (2022) <https://doi.org/10.3390/su142013642>
- [496] Lopez, M.A., Barbosa, G.N.N., Mattos, D.M.F.: New Barriers on 6G Networking: An Exploratory Study on the Security, Privacy and Opportunities for Aerial Networks. In: *International Conference on 6G Networking*, pp. 1–6 (2022). <https://doi.org/10.1109/6GNet54646.2022.9830402>
- [497] Rangel, R.K., Maitelli, A.L., Rodrigues, V.A., Valente, D.R.G.: Smart Cities - Automatic Power Lines Inspection. In: *IEEE Aerospace Conference*, pp. 1–14 (2022). <https://doi.org/10.1109/AERO53065.2022.9843562>
- [498] Villarim, A.W.R., Rocha Souto, C., Santos, A.J.V., Villarim, M.R.: Evaluation of low-power wireless communication technology in underground environments for smart cities applications. In: *IEEE Asia Pacific Conference on Wireless and Mobile*, pp. 1–5 (2022). <https://doi.org/10.1109/APWiMob56856.2022.10014189>

- [499] Ottolini, D., Zyrianoff, I.D.R., Kamienski, C.A.: Interoperability and Scalability Trade-offs in Open IoT Platforms. In: IEEE Annual Consumer Communications & Networking Conference, pp. 1–6 (2022). <https://doi.org/10.1109/CCNC49033.2022.9700622>
- [500] Souza, A.E.C., Cacho, N.A.A., Batista, T.V., Ranjan, R.: SAPPARCHI: an Osmotic Platform to Execute Scalable Applications on Smart City Environments. In: IEEE International Conference on Cloud Computing, pp. 289–298 (2022). <https://doi.org/10.1109/CLOUD55607.2022.00051>
- [501] Scaramella, G., Heck, G.C., Junior, L.L., Hexsel, R.A., Santana, T.A.S., Gomes, V.B.: Enabling LoRaWAN Communication Over Wi-SUN Smart Grid Networks. In: IEEE International Conference on Communications, pp. 4842–4847 (2022). <https://doi.org/10.1109/ICC45855.2022.9838959>
- [502] Bine, L.M.S., Boukerche, A., Ruiz, L.B., Loureiro, A.A.F.: IoDSCF: A Store-Carry-Forward Routing Protocol for joint Bus Networks and Internet of Drones. In: IEEE International Conference on Distributed Computing Systems, pp. 950–960 (2022). <https://doi.org/10.1109/ICDCS54860.2022.00096>
- [503] Peixoto, J.P.J., Costa, D.G., França Rocha, W., Portugal, P., Vasques, F.: Optimizing the deployment of multi-sensors emergencies detection units based on the presence of response centers in smart cities. In: IEEE International Smart Cities Conference, pp. 1–7 (2022). <https://doi.org/10.1109/ISC255366.2022.9922075>
- [504] Jesus, T.C., Costa, D.G., Portugal, P., Vasques, F.: A dependability-aware approach for dynamic mobile sink repositioning in smart cities applications. In: IEEE International Smart Cities Conference, pp. 1–7 (2022). <https://doi.org/10.1109/ISC255366.2022.9922122>
- [505] Quevedo, A.M.B.C., Quevedo, C.H.O.O., Gomes, R.L., Câmara, S.F., Celestino, J.: A Reputation and Security Mechanism for Heterogeneous Vehicular Networks. In: IEEE Symposium on Computers and Communication, pp. 1–6 (2022). <https://doi.org/10.1109/ISCC55528.2022.9912844>
- [506] Zißner, P., Rettore, P.H.L., Santos, B.P., Lopes, R.R.F., Sevenich, P.: Road Traffic Density Estimation Based on Heterogeneous Data Fusion. In: IEEE Symposium on Computers and Communication, pp. 1–6 (2022). <https://doi.org/10.1109/ISCC55528.2022.9912917>
- [507] Silva, L.N., Rettore, P.H.L., Mota, V.F.S., Santos, B.P.: MobVis: A Framework for Analysis and Visualization of Mobility Traces. In: IEEE Symposium on Computers and Communication, pp. 1–6 (2022). <https://doi.org/10.1109/ISCC55528.2022.9912988>
- [508] Teixeira, E.B., Souza Moura, P.N., Campos, C.A.V.: Classification of Traffic Event Tweets in Portuguese Language Using Deep Learning. In: International

- Wireless Communications and Mobile Computing, pp. 566–571 (2022). <https://doi.org/10.1109/IWCMC55113.2022.9825000>
- [509] Reis, L.G., Sammarco, M., Detyniecki, M., Campista, M.E.M.: Super Learner Ensemble for Sound Classification using Spectral Features. In: IEEE Latin-American Conference on Communications, pp. 1–6 (2022). <https://doi.org/10.1109/LATINCOM56090.2022.10000704>
 - [510] Rolle, R.P., Monteiro, L.N., Tomazini, L.R., Godoy, E.P.: Data-driven leak detection and localization using LPWAN and Deep Learning. In: IEEE International Workshop on Metrology for Industry 4.0 & IoT, pp. 403–407 (2022). <https://doi.org/10.1109/MetroInd4.0IoT54413.2022.9831619>
 - [511] Doile, G.N.D., Troiano, G.O., Bonatto, B.D., Souza, A.C.Z., Costa, V.B.F.: Technical, Regulatory, and Social Issues to Make a City Electrically Smart. In: IEEE Power & Energy Society General Meeting, pp. 1–5 (2022). <https://doi.org/10.1109/PESGM48719.2022.9916746>
 - [512] Pastório, A.F., Spanhol, F.A., Martins, L.D., Camargo, E.T.: A Machine Learning-Based Approach to Calibrate Low-Cost Particulate Matter Sensors. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–8 (2022). <https://doi.org/10.1109/SBESC56799.2022.9964983>
 - [513] Castro Paes, V., Pessoa, C.H.M., Costa, V.C.F., Oliveira, L.F.S., Souza, J.M.: IoE Knowledge Flow Model in Smart Cities. In: IEEE International Conference on Systems, Man, and Cybernetics, pp. 982–987 (2022). <https://doi.org/10.1109/SMC53654.2022.9945275>
 - [514] Muhammad, K., Hussain, T., Ser, J.D., Ding, W., Gandomi, A.H., Albuquerque, V.H.C.: Efficient Video Summarization for Smart Surveillance Systems. In: IEEE Symposium Series on Computational Intelligence, pp. 672–677 (2022). <https://doi.org/10.1109/SSCI51031.2022.10022220>
 - [515] Mattos, E.P., Domingues, A.C.S.A., Silva, F.A., Filho, H.S.R., Loureiro, A.A.F.: Behind the Mix-Zones Scenes: On the Evaluation of the Anonymization Quality. In: ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, pp. 133–140 (2022). <https://doi.org/10.1145/3551663.3558601>
 - [516] Ferreira, A.C.L.D., Coelho, T.R.: Factors of engagement in e-Participation in a smart city. In: International Conference on Theory and Practice of Electronic Governance, pp. 248–255 (2022). <https://doi.org/10.1145/3560107.3560302>
 - [517] Júnior, R.L.R., Rech, P.: Reliability of Google’s Tensor Processing Units for Embedded Applications. In: Design, Automation and Test in Europe - Conference and Exhibition, pp. 376–381 (2022). <https://doi.org/10.23919/DATE54114.2022.9774600>

- [518] Bastos, C.A.M., Passos, D.G., Barbosa, W.M., Santos Felipe, Y.S., Loureiro, T.B., Santos Dias, G., Oliveira Passos, F.G.: Drones for Civil Defense: A Case Study in the City of Niterói. In: International Joint Conference on Knowledge Discovery, Knowledge Engineering and Knowledge Management, pp. 72–82 (2022). <https://doi.org/10.5220/0011552800003335>
- [519] Teixeira, J.V.S., Baracho, R.M.A., Soergel, D.: Smart Cities, Sustainability, and Quality of Life A comparison of indexes and the indicators they include. In: International Multi-Conference on Complexity, Informatics and Cybernetics, pp. 111–118 (2022). <https://doi.org/10.54808/IMCIC2022.02.111>
- [520] Minango, P., Iano, Y., Chuma, E.L., Vaz, G.C., Oliveira, G.G., Minango, J.: Revision of the 5G Concept Rollout and Its Application in Smart Cities: A Study Case in South America. Smart Innovation, Systems and Technologies **207 SIST**, 229–238 (2023) https://doi.org/10.1007/978-3-031-04435-9_21
- [521] Frazão, D., Silva, E.: Characterization of the Behavior of LoRa Networks in a Fluvial Environment in the Rio Negro. Smart Innovation, Systems and Technologies **207 SIST**, 363–369 (2023) https://doi.org/10.1007/978-3-031-04435-9_36
- [522] Manhica, J.D.J., Akabane, A.T.: Mechanism of Collecting Urban Data for Application on Smart Cities. Smart Innovation, Systems and Technologies **207 SIST**, 97–105 (2023) https://doi.org/10.1007/978-3-031-04435-9_9
- [523] Júnior, N.J.M., Fiorese, A.: FLOWPRI-SDN: A Framework for Bandwidth Management for Priority Data Flows Applied to a Smart City Scenario. Lecture Notes in Networks and Systems **661 LNNS**, 346–357 (2023) https://doi.org/10.1007/978-3-031-29056-5_31
- [524] Filho, R.H., Brito, W.A., Sousa, D.C.B., Alencar Ribeiro, V.P., Sousa Chaves, J.L.M., Sá, E.L.: A Fault-Tolerant IoT Solution for Solid Waste Collection. Lecture Notes in Networks and Systems **661 LNNS**, 473–484 (2023) https://doi.org/10.1007/978-3-031-29056-5_41
- [525] Santos Ramos, G., Fernandes, D., Miranda Coelho, J.A.P., Aquino, A.L.L.: Toward Data Lake Technologies for Intelligent Societies and Cities. EAI/Springer Innovations in Communication and Computing **Part F633**, 3–29 (2023) https://doi.org/10.1007/978-3-031-30514-6_1
- [526] Oliveira, G.G., Sá, L.A.R., Iano, Y., Vaz, G.C.: Security in Smart Home Using Blockchain. Smart Innovation, Systems and Technologies **353 SIST**, 306–313 (2023) https://doi.org/10.1007/978-3-031-31007-2_28
- [527] Frazão, D., Martins, D., Silva, E.: Long-Range Network (LoRa) Behavior in the Amazon Region in a Fluvial Environment. Smart Innovation, Systems and Technologies **353 SIST**, 391–398 (2023) https://doi.org/10.1007/978-3-031-31007-2_36

- [528] Passos, D.G., Bastos, C.A.M., Saeger, R., Hilario, B.A., Oliveira Guerra, R.P., Barbosa, W.M., Felipe, Y.S.D.S., Loureiro, T.B., Santos Dias, G., Sabino, H., Oliveira Passos, F.G.: DroNit Project: Improving Drone Usage for Civil Defense Applications. *Communications in Computer and Information Science* **1842 CCIS**, 309–333 (2023) https://doi.org/10.1007/978-3-031-43471-6_15
- [529] Tater, R., Nagrath, P., Mishra, J., Albuquerque, V.H.C., Menezes, J.W.M.: Smart Parking System Using YOLOv3 Deep Learning Model. *Lecture Notes in Networks and Systems* **787 LNNS**, 387–398 (2023) https://doi.org/10.1007/978-981-99-6550-2_30
- [530] Loss, S.M., Singh, H.P., Cacho, N.A.A., Silva Lopes, F.A.: Using FIWARE and blockchain in smart cities solutions. *Cluster Computing: the Journal of Networks, Software Tools and Applications* **26**(4), 2115–2128 (2023) <https://doi.org/10.1007/s10586-022-03732-x>
- [531] Becker, J., Chasin, F., Rosemann, M., Beverungen, D., Priefer, J., Brocke, J., Matzner, M., Rio Ortega, A., Resinas, M., Santoro, F., Song, M., Park, K., Ciccio, C.D.: City 5.0: Citizen involvement in the design of future cities. *Electronic Markets* **33**(1) (2023) <https://doi.org/10.1007/s12525-023-00621-y>
- [532] Bittencourt, G.P., Marques, J.P.P.G., Cunha, D.C.: Generation of irregular grid maps for fingerprinting-based mobile radio localization using farthest-first traversal and low-discrepancy sequences. *Computer Communications* **211**, 24–36 (2023) <https://doi.org/10.1016/j.comcom.2023.08.021>
- [533] Mattos, E.P., Domingues, A.C.S.A., Silva, F.A., Filho, H.S.R., Loureiro, A.A.F.: Slicing who slices: Anonymization quality evaluation on deployment, privacy, and utility in mix-zones. *Computer Networks* **236**, 110007 (2023) <https://doi.org/10.1016/j.comnet.2023.110007>
- [534] Ahmed, M.A., Althubiti, S.A., Albuquerque, V.H.C., Reis, M.C., Shashidhar, C., Murthy, T.S., Lydia, E.L.: Fuzzy wavelet neural network driven vehicle detection on remote sensing imagery. *Computers and Electrical Engineering* **109**, 108765 (2023) <https://doi.org/10.1016/j.compeleceng.2023.108765>
- [535] Filho, R.H., Sousa, D.C.B., Brito, W.A., Sousa Chaves, J.L.M., Sá, E.L., Alencar Ribeiro, V.P.: Increasing Data Availability for Solid Waste Collection Using an IoT Platform based on LoRaWAN and Blockchain. *Procedia Computer Science* **220**, 119–126 (2023) <https://doi.org/10.1016/j.procs.2023.03.018>
- [536] Peixoto, J.P.J., Costa, D.G., França Rocha, W., Portugal, P., Vasques, F.: CityZones: A geospatial multi-tier software tool to compute urban risk zones. *SoftwareX* **23** (2023) <https://doi.org/10.1016/j.softx.2023.101409>
- [537] Valentini, E.P., Filho, G.P.R., Grande, R.E., Ranieri, C.M., Júnior, L.A.P.,

- Meneguette, R.I.: A Novel Mechanism for Misbehavior Detection in Vehicular Networks. *IEEE Access* **11**, 68113–68126 (2023) <https://doi.org/10.1109/ACCESS.2023.3292055>
- [538] Bine, L.M.S., Boukerche, A., Aylon, L.B.R., Loureiro, A.A.F.: Internet of Drones and Terrestrial Networks: A Successful Partnership. *IEEE Internet of Things Magazine* **6**(4), 104–110 (2023) <https://doi.org/10.1109/IOTM.001.2200265>
- [539] Liu, S., Wang, S., Liu, X., Dai, J., Muhammad, K., Gandomi, A.H., Ding, W., Hijji, M., Albuquerque, V.H.C.: Human Inertial Thinking Strategy: A Novel Fuzzy Reasoning Mechanism for IoT-Assisted Visual Monitoring. *IEEE Internet of Things Journal* **10**(5), 3735–3748 (2023) <https://doi.org/10.1109/JIOT.2022.3142115>
- [540] Khan, S.U., Haq, I.U., Khan, N., Ullah, A., Muhammad, K., Chen, H., Baik, S.W., Albuquerque, V.H.C.: Efficient Person Reidentification for IoT-Assisted Cyber-Physical Systems. *IEEE Internet of Things Journal* **10**(21), 18695–18707 (2023) <https://doi.org/10.1109/JIOT.2023.3259343>
- [541] Rodriguez, L.G.A., Batista, D.M.: Resource-Intensive Fuzzing for MQTT Brokers: State of the Art, Performance Evaluation, and Open Issues. *IEEE Networking Letters* **5**(2), 100–104 (2023) <https://doi.org/10.1109/LNET.2023.3263556>
- [542] Façal, B.S., Marcondes, C.A.C., Loubach, D.S., Sbruzzi, E.F., Verri, F.A.N., Marques, J.C., Júnior, L.A.P., Albuquerque Máximo, M.R.O., Curtis, V.V.: A Cyber-Physical System’s Roadmap to Last-Mile Delivery Drones. *IEEE Aerospace and Electronic Systems Magazine* **38**(5), 6–16 (2023) <https://doi.org/10.1109/MAES.2023.3240112>
- [543] Silva Gomides, T., Grande, R.E., Pereira, R.S., Meneguette, R.I., Souza, F.S.H., Guidoni, D.L.: An Urban Traffic Management System based on Vehicle Cooperation. *IEEE Latin America Transactions* **21**(3), 441–449 (2023) <https://doi.org/10.1109/TLA.2023.10068848>
- [544] Oliveira, L.F.X.A., Oliveira, D.C.M., Menezes Frota, Y.A.: Defining Routes for Emergency Response from Climate Events: a Data-oriented Approach. *IEEE Latin America Transactions* **21**(10), 1064–1072 (2023) <https://doi.org/10.1109/TLA.2023.10255445>
- [545] Silva, L.A., Mendes, A.S., Blas, H.S.S., Bastos, L.C., Gonçalves, A.L., Moraes, A.F.: Active Actions in the Extraction of Urban Objects for Information Quality and Knowledge Recommendation with Machine Learning. *Sensors* **23**(1) (2023) <https://doi.org/10.3390/s23010138>
- [546] Vilos, N.L., Cordero, C.V., Souza, R.D., Sánchez, S.M.: Clustering-Based Energy-Efficient Self-Healing Strategy for WSNs Under Jamming Attacks.

- [547] Aragão, F.V., Genaro Chiroli, D.M., Zola, F.C., Aragão, E.V., Marinho, L.H.N., Correa, A.L.C., Colmenero, J.C.: Smart Cities Maturity Model—A Multicriteria Approach. *Sustainability* (Switzerland) **15**(8) (2023) <https://doi.org/10.3390/su15086695>
- [548] Souza, L.S., Santos Soares, M.: Combining SysML and Timed Coloured Petri Nets for Designing Smart City Applications. *Journal of Universal Computer Science* **29**(10), 1217–1249 (2023) <https://doi.org/10.3897/jucs.97170>
- [549] Silva, J.V.L., Sousa Cavalcante, E.R., Batista, T.V., Silva Solino, A.L., Silva, J.P., Rocha Neto, A.F.: Non-Intrusive Continuous Monitoring of Smart City Platforms. *Journal of the Brazilian Computer Society* **29**(1), 86–98 (2023) <https://doi.org/10.5753/jbcs.2023.3271>
- [550] Ferreira, F.H., Barros, F.J.B., Alcântara Neto, M.C., Cardoso, E.H.S., Francês, C.R.L., Araújo, J.P.L.: Hybrid computational and real data-based positioning of small cells in 5G networks. *PEERJ Computer Science* **9** (2023) <https://doi.org/10.7717/peerj-cs.1412>
- [551] Rangel, R.K., Maitelli, A.L., Lima Freitas Júnior, J., Araújo, R.F.F.: Smart Drone, Wireless Charge Station and Management System applied to air mobility. In: *IEEE Aerospace Conference*, pp. 1–19 (2023). <https://doi.org/10.1109/AERO55745.2023.10115650>
- [552] Rodrigues, L.H.N., Almeida, C.F.M.: Cosimulation of interconnection between smart electrical grids and smart cities platform via massive machine-to-machine communication. In: *Brazilian Conference on Quality of Power*, pp. 1–7 (2023). <https://doi.org/10.1109/CBQEE59548.2023.10504097>
- [553] Menoni, P.H., Olate, J.M.P., Freitas Moraes, C.: Assessing the Feasibility of Developing a White Label SD-WAN Solution for Smart Cities. In: *IEEE CHILEAN Conference on Electrical, Electronics Engineering, Information and Communication Technologies*, pp. 1–6 (2023). <https://doi.org/10.1109/CHILECON60335.2023.10418755>
- [554] Silva, L.O., Souza, M.V.P., Vasconcelos, L.P., Santos Barcellos, R., Trevisan, D.G., Filho, J.V.: Smart Cities in Focus: A Bicycle Transport Applications Analysis. In: *International Conference on Computer Supported Cooperative Work in Design*, pp. 855–860 (2023). <https://doi.org/10.1109/CSCWD57460.2023.10152820>
- [555] Kippke, M.A., Arboleya, P.A., Costa, M.A.D.: A Smart Lighting Mesh-Type Network as a Backbone Infrastructure for IoT Energy Metering Development for Smart Cities. In: *IEEE Industry Applications Society Annual Meeting*, pp. 1–15 (2023). <https://doi.org/10.1109/IAS54024.2023.10406427>

- [556] Hamdan, M., Eldhai, A.M., Abdelsalam, S., Ullah, K., Bashir, A.K., Marsono, M.N., Kon, F., Batista, D.M.: A Two-Tier Anomaly-based Intrusion Detection Approach for IoT-Enabled Smart Cities. In: IEEE Conference on Computer Communications Workshops, pp. 1–7 (2023). <https://doi.org/10.1109/INFOCOMWKSHP57453.2023.10225834>
- [557] Loss, S.M., Colao, D.S., Cacho, N.A.A., Silva Lopes, F.A.: System of System Strategy for Multi-Level Interoperability for Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–7 (2023). <https://doi.org/10.1109/ISC257844.2023.10293338>
- [558] Peixoto, J.P.J., Costa, D.G., França Rocha, W., Portugal, P., Vasques, F.: Enhancing the Computation of Risk Zones Based on Emergency-Related Infrastructure in Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–7 (2023). <https://doi.org/10.1109/ISC257844.2023.10293416>
- [559] Silva, A.H., Dantas, A.V.L., Rocha, R.G., Silva Lopes, F.A., Cacho, N.A.A.: An End-to-End Framework for Moving Objects in Smart Cities. In: IEEE International Smart Cities Conference, pp. 1–7 (2023). <https://doi.org/10.1109/ISC257844.2023.10293425>
- [560] Gurgel, L.V.B., Souza, A.E.C., Cacho, N.A.A., Silva Lopes, F.A.: Deep Learning Distribution Model Using Osmotic Computing. In: IEEE International Smart Cities Conference, pp. 1–7 (2023). <https://doi.org/10.1109/ISC257844.2023.10293453>
- [561] Jesus, T.C., Costa, D.G., Portugal, P., Vasques, F., Junior, W.A.F.: Dependability and Quality-Aware Connectivity in Smart Cities Applications. In: IEEE International Smart Cities Conference, pp. 1–7 (2023). <https://doi.org/10.1109/ISC257844.2023.10293631>
- [562] Silva, G.F.P., Costa, D.G., Jesus, T.C.: A Secure OTA Approach For Flexible Operation of Emergency Detection Units in Smart Cities. In: IEEE International Smart Cities Conference, pp. 01–07 (2023). <https://doi.org/10.1109/ISC257844.2023.10293637>
- [563] Santos Junior, R., Coelho, J.V.V., Cacho, N.A.A., Araújo, D.S.A.: Analyzing Criminal Macrocauses on Intentional Lethal Violent Crimes: An Unsupervised Learning Approach for Smart City Initiatives. In: IEEE International Smart Cities Conference, pp. 01–07 (2023). <https://doi.org/10.1109/ISC257844.2023.10293658>
- [564] Soares, L.R., Nobre, J.C., Nascimento Kerschner, G.: Design of a Blockchain-Based Secure Storage Architecture for Resource-Constrained Healthcare. In: IEEE Symposium on Computers and Communications, pp. 1–6 (2023). <https://doi.org/10.1109/ISCC58397.2023.10218178>

- [565] Paiva Souza, M.A., Lucena, S.C., Campos, C.A.V., Melo Baptista Domingues, G.: Evaluating the influence of events on mobility-based data communities. In: IEEE International Conference on Intelligent Transportation Systems, pp. 4209–4214 (2023). <https://doi.org/10.1109/ITSC57777.2023.10422184>
- [566] Bruno, D.R., Osório, F.S.: Real-Time Pedestrian Detection and Tracking System Using Deep Learning and Kalman filter: Applications on Embedded Systems in Advanced Driver Assistance Systems. In: Latin American Robotics Symposium, Brazilian Symposium on Robotics e Workshop on Robotics in Education, pp. 549–554 (2023). <https://doi.org/10.1109/LARS/SBR/WRE59448.2023.10333032>
- [567] Oliveira, F.L.S., Costa, D.G., Assis Silva, F.M., Silva, I.M.D.: A Multi Soft-sensor Approach for the Development of Emergencies Detection Units on the Edge. In: IEEE International Workshop on Metrology for Industry 4.0 & IoT, pp. 1–6 (2023). <https://doi.org/10.1109/MetroInd4.0IoT57462.2023.10180198>
- [568] Cesen, F.E.R., Rothenberg, C.R.E.: Offloading Robotic and UAV Applications to the Network Using Programmable Data Planes. In: IEEE Conference on Network Function Virtualization and Software Defined Networks, pp. 207–212 (2023). <https://doi.org/10.1109/NFV-SDN59219.2023.10329768>
- [569] Coelho, G.A., Jesus, T.C., Costa, D.G.: Urban emergency detection system using hierarchical, collaborative and configurable wireless sensor networks. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–6 (2023). <https://doi.org/10.1109/SBESC60926.2023.10324250>
- [570] Pereira, D.M.G., Brayner, A.R.A.: UFCity: A Software Architecture to Create Data Ecosystem in Smart Cities. In: Symposium on Internet of Things, pp. 1–5 (2023). <https://doi.org/10.1109/SIoT60039.2023.10389861>
- [571] Azambuja, H.T., Revoredo, T.C.: A Low Cost Open-Source Energy Monitoring and Control System for Smart Homes. In: Symposium on Internet of Things, pp. 1–5 (2023). <https://doi.org/10.1109/SIoT60039.2023.10390151>
- [572] Costa Rocha, J., Souza, M.A.D., Cardoso, E.H.S., Vijaykumar, N., Araújo, J.P.L., Francês, C.R.L.: A Platform for Monitoring Student Commuting in the Use of School Transport in Smart Cities - A Facial Recognition Based Approach. In: International Conference on Smart Applications, Communications and Networking, pp. 1–6 (2023). <https://doi.org/10.1109/SmartNets58706.2023.10216190>
- [573] Almeida, L.G., Campos, M.G., Borin, J.F.: LoRaWAN Infrastructure for Urban Waste Management: A Simulation Study. In: IEEE World Forum on Internet of Things, pp. 1–6 (2023). <https://doi.org/10.1109/WF-IoT58464.2023.10539568>
- [574] Santos, H.L.M., Medeiros, I.L., Rocha, C.H.A., Rosário, D.L., Cerqueira, E.C.,

- Braun, T.: A Mobility-aware Flying Edge Computing Service Orchestration with Quality of Service Support. In: IEEE World Forum on Internet of Things, pp. 01–06 (2023). <https://doi.org/10.1109/WF-IoT58464.2023.10539595>
- [575] Adorno, P.L.V., Jasenovski, I.M., Santiago, D.F.D.M., Bergamasco, L.C.C.: Automatic detection of people with reduced mobility using YOLOv5 and data reduction strategy. In: Brazilian Symposium on Information Systems, pp. 9–16 (2023). <https://doi.org/10.1145/3592813.3592883>
- [576] Santos, J., Peixoto, M.L.M., Batista, B.G., Kuehne, B.T., Filho, D.M.L.: Fog environment proposal to reduce energy consumption on public roads in smart cities. In: Brazilian Symposium on Information Systems, pp. 245–251 (2023). <https://doi.org/10.1145/3592813.3592911>
- [577] Santos, D.L., Claro, D.B., Gondim, J.M.: Monitoring vehicle plate detection in Brazilian Universities. In: Brazilian Symposium on Information Systems, pp. 268–275 (2023). <https://doi.org/10.1145/3592813.3592914>
- [578] Azevedo, D., Abiko, A.K., Negreiros, I.: Digital and Smart City Operation in Brazil. In: International Conference on Theory and Practice of Electronic Governance, pp. 72–79 (2023). <https://doi.org/10.1145/3614321.3614331>
- [579] Aquino, G.R.C., Farias, C.M.: Asclepius: Data Quality Framework for IoT. In: International ACM Symposium on Design and Analysis of Intelligent Vehicular Networks and Applications, pp. 69–76 (2023). <https://doi.org/10.1145/3616392.3623407>
- [580] Mattos, E.P., Domingues, A.C.S.A., Silva, F.A., Ramos, H.S., Loureiro, A.A.F.: Protect your Data and I’ll Show Its Utility: A Practical View about Mix-zones Impacts on Mobility Data for Smart City Applications. In: International ACM Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks, pp. 45–52 (2023). <https://doi.org/10.1145/3616394.3618272>
- [581] Santos, F.S.B., Silva Fonseca, L.S., Soares, S.C.B., Santana França, R.J., Lemos, B.B.: Usabivalid Tool: Evaluating usability of Smart City applications. In: Brazilian Symposium on Software Quality, pp. 158–167 (2023). <https://doi.org/10.1145/3629479.3629504>
- [582] Silva Solino, A.L., Batista, T.V., Sousa Cavalcante, E.R.: Decision-Making Support to Auto-scale Smart City Platform Infrastructures. In: Iberian Conference on Information Systems and Technologies, pp. 1–6 (2023). <https://doi.org/10.23919/CISTI58278.2023.10212058>
- [583] Luna-Romero, S.F., Stempniak, C.R., Souza, M.A., Meza, G.R.: Urban Digital Twins for Synthetic Data of Individuals with Mobility Aids in Curitiba, Brazil, to Drive Highly Accurate AI Models for Inclusivity. Lecture Notes in

Networks and Systems **871** LNNS, 116–125 (2024) https://doi.org/10.1007/978-3-031-52090-7_12

- [584] Maruyama, M.H.M., Silveira, L.W., Dorneles, A.P.M., Casanova, G.V., Poy, R.B., Silva Júnior, E., Oliveira, J.P.M., Maran, V.: Towards a Software Architecture to Provide Hybrid Recommendations for Smart Campuses. *Communications in Computer and Information Science* **2052**, 1–22 (2024) https://doi.org/10.1007/978-3-031-53656-4_1
- [585] Sousa Fé, I., Silva, F.A.P., Silva, F.J., Nguyen, T.A.: Quantifying the impact of resource redundancy on smart city system dependability: a model-driven approach. *Cluster Computing: the Journal of Networks, Software Tools and Applications* **27**(5), 6059–6079 (2024) <https://doi.org/10.1007/s10586-023-04259-5>
- [586] Forkan, A.R.M., Kang, Y., Carrillo, F.M., Banerjee, A., McCarthy, C., Ghaderi, H., Costa, B.G.S., Dawod, A., Georgakopoulos, D., Jayaraman, P.P.: AIoT-CitySense: AI and IoT-Driven City-Scale Sensing for Roadside Infrastructure Maintenance. *Data Science and Engineering* **9**(1, SI), 26–40 (2024) <https://doi.org/10.1007/s41019-023-00236-5>
- [587] Mattos, E.P., Domingues, A.C.S.A., Silva, F.A., Ramos, H.S., Loureiro, A.A.F.: Protect your data and I'll rank its utility: A framework for utility analysis of anonymized mobility data for smart city applications. *Ad Hoc Networks* **163**, 103567 (2024) <https://doi.org/10.1016/j.adhoc.2024.103567>
- [588] Peixoto, J.P.J., Bittencourt, J.C.N., Jesus, T.C., Costa, D.G., Portugal, P., Vasques, F.: Exploiting geospatial data of connectivity and urban infrastructure for efficient positioning of emergency detection units in smart cities. *Computers, Environment and Urban Systems* **107**, 102054 (2024) <https://doi.org/10.1016/j.compenvurbsys.2023.102054>
- [589] Jodas, D.S., Brazolin, S., Velasco, G.D.N., Lima, R.A., Yojo, T., Papa, J.P.: Urban tree failure probability prediction based on dendrometric aspects and machine learning models. *Computers, Environment and Urban Systems* **108**, 102074 (2024) <https://doi.org/10.1016/j.compenvurbsys.2024.102074>
- [590] Santos Junior, R., Coelho, J.V.V., Cacho, N.A.A., Araújo, D.S.A.: A criminal macrocause classification model: An enhancement for violent crime analysis considering an unbalanced dataset. *Expert Systems with Applications* **238** (2024) <https://doi.org/10.1016/j.eswa.2023.121702>
- [591] Cassel, G.A.S., Rosa Righi, R., Costa, C.A., Bez, M.R., Pasin, M.: Towards providing a priority-based vital sign offloading in healthcare with serverless computing and a fog-cloud architecture. *Future Generation Computer Systems* **157**, 51–66 (2024) <https://doi.org/10.1016/j.future.2024.03.032>

- [592] Santos, F.C., Figueiredo, F.D., Grande, R.E., Santos, A.L.: Enhancing a fog-oriented IoT authentication and encryption platform through deep learning-based attack detection. *Internet of Things (Netherlands)* **27** (2024) <https://doi.org/10.1016/j.iot.2024.101310>
- [593] Banerjee, A., Costa, B.G.S., Forkan, A.R.M., Kang, Y.-B., Carrillo, F.M., McCarthy, C., Ghaderi, H., Georgakopoulos, D., Jayaraman, P.P.: 5G enabled smart cities: A real-world evaluation and analysis of 5G using a pilot smart city application. *Internet of Things (Netherlands)* **28** (2024) <https://doi.org/10.1016/j.iot.2024.101326>
- [594] Freire, G.M., Curasma, H.P., Estrella, J.C.: A Distributed Software Architecture for IoT: Container Orchestration Impact and Evaluation. *Procedia Computer Science* **238**, 224–231 (2024) <https://doi.org/10.1016/j.procs.2024.06.019>
- [595] Santos, A.S., Gonçalves, I., Silva, A., Neves, R., Teixeira, I., Barbosa, E., Gava, V., Yoshida, O.: Smart resilience through IoT-enabled natural disaster management: A COVID-19 response in São Paulo state. *IET Smart Cities* **6**(3), 211–224 (2024) <https://doi.org/10.1049/smc2.12082>
- [596] Zarpellon, B.O., Oro Arenas, L., Godoy, E.P., Marafão, F.P., Paredes, H.K.M.: Design and Implementation of a Smart Campus Flexible Internet of Things Architecture on a Brazilian University. *IEEE Access* **12**, 113705–113725 (2024) <https://doi.org/10.1109/ACCESS.2024.3444471>
- [597] Awan, K.A., Din, I.U., Almogren, A.S., Rodrigues, J.J.P.C.: Quantum-Assisted Intelligent Decision Support Systems for Trustworthy Renewable Energy Management in Consumer Devices. *IEEE Transactions on Consumer Electronics* **70**(2), 4665–4672 (2024) <https://doi.org/10.1109/TCE.2024.3384674>
- [598] Costa, J.T., Nascimento, R.P.C.: ICT Governance Practices and Industry 4.0 Technologies in Support of Decision-Making in Brazilian Smart Cities in the Face of the COVID-19 Pandemic. *IEEE Transactions on Computational Social Systems* **11**(6), 8213–8226 (2024) <https://doi.org/10.1109/TCSS.2023.3306707>
- [599] Oliveira, F.M.C., Bittencourt, L.F., Costa Bianchi, R.A., Kamienski, C.A.: Drones in the Big City: Autonomous Collision Avoidance for Aerial Delivery Services. *IEEE Transactions on Intelligent Transportation Systems* **25**(5), 4657–4674 (2024) <https://doi.org/10.1109/TITS.2023.3329029>
- [600] Costa Nascimento, J.J., Marques, A.G., Rodrigues, Y.O.A., Severiano, G.F.B., Sousa Rodrigues, I., Mattos Dourado Junior, C.M.J., Freitas Souza, L.F.: Health of Things Melanoma Detection System—detection and segmentation of melanoma in dermoscopic images applied to edge computing using deep learning and fine-tuning models. *Frontiers in Communications and Networks* **5** (2024) <https://doi.org/10.3389/frcmn.2024.1376191>

- [601] Fischer, G.S., Oliveira Ramos, G., Costa, C.A., Alberti, A.M., Griebler, D., Singh, D., Rosa Righi, R.: Multi-Hospital Management: Combining Vital Signs IoT Data and the Elasticity Technique to Support Healthcare 4.0. *IoT* **5**(2), 381–408 (2024) <https://doi.org/10.3390/iot5020019>
- [602] Junior, L.P., Macedo, D.D.J., Costa, D.G., Dantas, M.A.R.: Towards an AI-Driven Data Reduction Framework for Smart City Applications. *Sensors* **24**(2) (2024) <https://doi.org/10.3390/s24020358>
- [603] Quispe, A.A., Riella, R.J., Iantorno, L.M., Mariani, L.S., Fernández, E.M.G.: Analysis of Wi-SUN FAN Network Formation Time. *Sensors* **24**(4) (2024) <https://doi.org/10.3390/s24041142>
- [604] Gaffurini, M., Flammini, A., Ferrari, P., Carvalho, D.F., Godoy, E.P., Sisinni, E.: End-to-End Emulation of LoRaWAN Architecture and Infrastructure in Complex Smart City Scenarios Exploiting Containers. *Sensors* **24**(7) (2024) <https://doi.org/10.3390/s24072024>
- [605] Jesus, T.C., Portugal, P., Costa, D.G., Vasques, F.: Reliability and Detectability of Emergency Management Systems in Smart Cities under Common Cause Failures. *Sensors* **24**(9) (2024) <https://doi.org/10.3390/s24092955>
- [606] Silva, A.A.F., Porto, A.J.S., Belo, B.M.C., Azevedo Castro Cesar, C.: Upcity: Addressing Urban Problems Through an Integrated System. *Sensors* **24**(24) (2024) <https://doi.org/10.3390/s24247956>
- [607] Castañeda, W.A.C., Filho, P.B.: Improvement of an Edge-IoT Architecture Driven by Artificial Intelligence for Smart-Health Chronic Disease Management. *Sensors* **24**(24) (2024) <https://doi.org/10.3390/s24247965>
- [608] Peixoto, J.P.J., Costa, D.G., Portugal, P., Vasques, F.: Flood-Resilient Smart Cities: A Data-Driven Risk Assessment Approach Based on Geographical Risks and Emergency Response Infrastructure. *Smart Cities* **7**(1), 662–679 (2024) <https://doi.org/10.3390/smartcities7010027>
- [609] Andrade, M.G.D., Azevedo Medeiros, M., Medeiros, T., Azevedo, M.B., Silva, M.B.D., Costa, D.G., Silva, I.M.D.: On the Use of Biofuels for Cleaner Cities: Assessing Vehicular Pollution through Digital Twins and Machine Learning Algorithms. *Sustainability (Switzerland)* **16**(2) (2024) <https://doi.org/10.3390/su16020708>
- [610] Souza, R.M., Cezario, B.S., Affonso, E.O.T., Bem Machado, A., Vieira, D.P., Chinelli, C.K., Haddad, A.N., Dusek, P.M., Miranda, M.G., Soares, C.A.P., Guedes, A.L.A.: My Human Rights Smart City: Improving Human Rights Transparency Identification System. *Sustainability (Switzerland)* **16**(3) (2024) <https://doi.org/10.3390/su16031274>

- [611] Borges, J.C.N., Peixoto, A.M., Silva, T.H., Fonseca, A.M., Lüders, R.: Towards spatiotemporal integration of bus transit with data-driven approaches. *Journal of Internet Services and Applications* **15**(1) (2024) <https://doi.org/10.5753/jisa.2024.3812>
- [612] Santos Silva, J.A., Cunha, F.D., Guimarães, S.J.F.: Mapping High Risk Drinking Locations from Different Clustering Methods. *Journal of Internet Services and Applications* **15**(1), 536–547 (2024) <https://doi.org/10.5753/jisa.2024.3817>
- [613] Silva, L.H.B., Silva, J.L.F., Lins, R.P., Matos, F.M., Santos, A.L., Júnior, P.D.M.: POSITRON: Efficient Allocation of Smart City Multifunctional IoT Devices Aware of Computing Resources. *Journal of Internet Services and Applications* **15**(1), 112–124 (2024) <https://doi.org/10.5753/jisa.2024.3833>
- [614] Alves, C., Mendonça, I., Almeida Guimarães, V., Gonzalez, P.H.: ACO With Reinforcement Learning Applied to Rescues Operations on Urban Forests. In: *IEEE Congress on Evolutionary Computation*, pp. 1–8 (2024). <https://doi.org/10.1109/CEC60901.2024.10612050>
- [615] Moreira, L.F.R., Freitas Botelho Saar, L.N., Moreira, R., Rodrigues, L.G.F., Travençolo, B.A.N., Backes, A.R.: Enabling Intelligence on Edge Through an Artificial Intelligence as a Service Architecture. In: *IEEE International Conference on Cloud Networking* (2024). <https://doi.org/10.1109/CloudNet62863.2024.10815777>
- [616] Pereira, D.M.G., Brayner, A.R.A.: An Integrated Edge, Fog, and Cloud Computing Reference Architecture for Developing Data Ecosystems in Smart Cities. In: *IEEE International Conference on Cloud Networking*, pp. 1–9 (2024). <https://doi.org/10.1109/CloudNet62863.2024.10815810>
- [617] Teixeira, V.C., Silva, G.F., Manssour, I.H., Musse, S.R., Pinho, M.S.: Visualization of Crowd Contamination Simulations Using Immersive Virtual Reality. In: *IEEE Annual Computers, Software, and Applications Conference*, pp. 1819–1824 (2024). <https://doi.org/10.1109/COMPSAC61105.2024.00287>
- [618] Mateus, B.R., Brustolini, P., Filho, N.I.D.M., Souza, F.S.H., Filho, G.P.R., Meneguette, R.I., Guidoni, D.L.: Strategies for Locating Electric Vehicle Charging Stations in Smart Cities. In: *International Conference on Distributed Computing in Smart Systems and the Internet of Things*, pp. 693–699 (2024). <https://doi.org/10.1109/DCOSS-IoT61029.2024.00107>
- [619] Abreu, P.F.F., Oliveira Mendes, L.H., Neto, G.A.S., Silva, T.A.R., Silva Veloso, A.F., Vasconcelos, F.M., Leão, E.M., Reis Junior, J.V.: LoRaWISEP: A Simulation and Optimization Tool for LoRaWAN IoT Networks. In: *International Conference on Future Internet of Things and Cloud*, pp. 91–97 (2024). <https://doi.org/10.1109/FiCloud62933.2024.00022>

- [620] Alves, P.L., Hochuli, A.G., Oliveira, L.E.S., Almeida, P.R.L.: Optimizing Parking Space Classification: Distilling Ensembles into Lightweight Classifiers. In: International Conference on Machine Learning and Applications, pp. 1016–1020 (2024). <https://doi.org/10.1109/ICMLA61862.2024.00152>
- [621] Ribas, M.E.M., Mendes, H.B., Oliveira, L.E.S., Junior, L.A.Z., Almeida, P.R.L.: Using Deep Neural Networks to Quantify Parking Dwell Time. In: International Conference on Machine Learning and Applications, pp. 1504–1509 (2024). <https://doi.org/10.1109/ICMLA61862.2024.00232>
- [622] Agostini, A.L.C., Manfroí, C., Pereira, R., Costa, E.M., Santos, N.: Cemetery: More Human, Intelligent, and Sustainable. In: International Conference on Intelligent Environments, pp. 132–138 (2024). <https://doi.org/10.1109/IE61493.2024.10599898>
- [623] Torres, J., Núñez, M., Villanueva, J.M.M.: LoRa Multi-Packet Protocol for Image Transmission. In: International Symposium on Instrumentation Systems, Circuits and Transducers, pp. 1–6 (2024). <https://doi.org/10.1109/INSCIT62583.2024.10693388>
- [624] Vega, D.M., Elosúa, A.C., Flores, Y.M.R., Martínez, P.M., Castillo, M.J.V., Bento, A.C., Torres, E.Y.T., Gatti, D.C.: SmartCargo Monitoring System for Cargo Transport integrated with IoT and AI. In: International Symposium on Sensing and Instrumentation in 5G and IoT Era, pp. 1–6 (2024). <https://doi.org/10.1109/ISSI63632.2024.10720477>
- [625] Bitencourt, H.V., Oliveira Lucas, P., Orang, O., Silva, P.C., Guimarães, F.G.: A weighted multivariate fuzzy time series method for multiple output high-dimensional time series forecasting in IoT applications. In: IEEE Latin American Conference on Computational Intelligence, pp. 1–6 (2024). <https://doi.org/10.1109/LA-CCI62337.2024.10814884>
- [626] Bittencourt, J.C.N., Costa, D.G., Portugal, P., Vasques, F.: Towards Lightweight Fire Detection at the Extreme Edge based on Decision Trees. In: IEEE Mediterranean Electrotechnical Conference, pp. 873–878 (2024). <https://doi.org/10.1109/MELECON56669.2024.10608598>
- [627] Brito, B.J.P.F., Costa, D.G., Silva, I.M.D.: Geospatial Risk Assessment of Cyclist Accidents in Urban Areas: A K-means Clustering Approach. In: IEEE Mediterranean Electrotechnical Conference, pp. 744–749 (2024). <https://doi.org/10.1109/MELECON56669.2024.10608791>
- [628] Rolle, R.P., Carmo Rodrigues, W., Tomazini, L.R., Monteiro, L.N., Godoy, E.P.: Leveraging graph-based leak localization in water distribution networks. In: IEEE International Workshop on Metrology for Industry 4.0 & IoT, pp. 192–197 (2024). <https://doi.org/10.1109/MetroInd4.0IoT61288.2024.10584129>

- [629] Sammarco, M., Zeffiro, T., Reis, L.G., Campista, M.E.M.: Sound Event Detection Via Pervasive Devices for Mobility Surveillance in Smart Cities. In: IEEE International Conference on Pervasive Computing and Communications Workshops, pp. 581–586 (2024). <https://doi.org/10.1109/PerComWorkshops59983.2024.10503381>
- [630] Silva Veloso, A.F., N. Costa, M.M., Reis Junior, J.V., Abreu, P.F.F., Neto, G.A.S., Silva, T.A., Oliveira Mendes, L.H.: Big Data Architecture for Efficient Energy Management in Multi Microgrid Scenarios. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–6 (2024). <https://doi.org/10.1109/SBESC65055.2024.10771911>
- [631] Muniz, J.A., Castro Paula, R., Camargo, E.T.: An Angular Position-Based Tracking Algorithm for Geolocation in Smart Cities Applications. In: Brazilian Symposium on Computing Systems Engineering, pp. 1–6 (2024). <https://doi.org/10.1109/SBESC65055.2024.10771930>
- [632] Oliveira, L.F.P., Luz, P.D.G., Manera, L.T.: Green Wave Coordination Through Wireless Traffic Light Controller System. In: Symposium on Internet of Things, pp. 1–5 (2024). <https://doi.org/10.1109/SIoT63830.2024.10780660>
- [633] Figlarz, G.R., Hessel, F.P.: Enhancement in LoraWAN’s Security With Post-Quantum Key Encapsulation Method. In: IEEE World Forum on Internet of Things, pp. 804–809 (2024). <https://doi.org/10.1109/WF-IoT62078.2024.10811133>
- [634] Paiva Barbosa, I.A., Borin, J.F.: Towards Secure Smart Cities: A Security Risk Assessment Methodology. In: IEEE World Forum on Internet of Things, pp. 1–6 (2024). <https://doi.org/10.1109/WF-IoT62078.2024.10811212>
- [635] Souza Carrasco Vieira, M.L., Lara, M., Pellenz, M.E., Biczkowski, M., Mochinski, M.A., Enembreck, F., Jamhour, E., Zambenedetti, V.C.: Satellite Imagery-Assisted Link-Budget Analysis Algorithm for Smart Grid Wireless Backhaul Network Planning. In: ACM/SIGAPP Symposium on Applied Computing, pp. 151–158 (2024). <https://doi.org/10.1145/3605098.3635987>
- [636] Freitas Borges, M.V., Manzano, W.A.E., Rocha, L.S., Maia, P.H.M., Nakagawa, E.Y.: Towards Automatic Generation of Systems-of-Systems Architectural Configurations. In: International Workshop on Software Engineering for Systems-of-Systems and Software Ecosystems, pp. 29–36 (2024). <https://doi.org/10.1145/3643655.3643884>
- [637] Santos, C.N.M., Claro, D.B., Gondim, J.M., Mane, B.: Suspicious Behavior Detection near Vehicles in University Environment: An Approach using Object Detection and Body Angles. In: Brazilian Symposium on Information Systems (2024). <https://doi.org/10.1145/3658271.3658338>

- [638] Bernardini, F.C., Oliveira, E.A., Cruz, M.M., Filho, J.V., Gomes, J.A.P.: Integrating University and Local Government to Address Strategic Planning Goals in Smart Cities: The Case of Niteroi and Fluminense Federal University. In: International Conference on Theory and Practice of Electronic Governance, pp. 300–308 (2024). <https://doi.org/10.1145/3680127.3680214>
- [639] Oliveira, G.G., Alves, A.M., Vaz, G.C., Razmjoooy, N., Tran, T.A.: Case Study on Urban Mobility in the USA. Applying Multivariate Linear Regression. In: International Conference on Big Data and Internet of Things, pp. 319–324 (2024). <https://doi.org/10.1145/3697355.3697407>
- [640] Nascimento Siqueira, R., Silva, B.C., Avelino, G.A., Santos, D.V.: Assisting the Requirements Definition and Modeling of IoT applications through the ReqM4IoT tool. In: Brazilian Symposium on Software Quality, pp. 286–297 (2024). <https://doi.org/10.1145/3701625.3701667>
- [641] Alves, F.H., Baranauskas, M.C.C., L’Erário, A.: Design Analysis of Smart Water Meters: An Open Design Approach. In: International Conference on Enterprise Information Systems, pp. 435–442 (2024). <https://doi.org/10.5220/0012548400003690>
- [642] Baracho, R.M.A., Vidigal, M.J.M., Porto, M.F., Couto, B.A.: Interdisciplinarity in smart systems applied to rural school transport in Brazil. In: International Multi-Conference on Complexity, Informatics and Cybernetics, pp. 222–229 (2024). <https://doi.org/10.54808/IMCIC2024.01.222>