

Apêndice do Artigo “Cidades Inteligentes sob a Perspectiva da Tecnologia da Informação no Brasil – Um Estudo de Mapeamento Sistemático”

1 Introdução

Este documento complementa as informações disponíveis no artigo “Cidades Inteligentes sob a Perspectiva da Tecnologia da Informação no Brasil – Um Estudo de Mapeamento Sistemático” apresentado na Seção 2 as *Strings* de busca utilizadas nas bases de dados (ACM digital library, IEEE Xplore, Web of Science, Science Direct e Scopus). Ao final do documento constam as referências bibliográficas para os 642 artigos secundários selecionados. As extrações foram realizadas no dia 26 de abril de 2025.

2 Extração de Artigos nas Bases Científicas

2.1 ACM digital library

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

```
( ( Title:
    ("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city")
)
OR
( Abstract:
    ("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city")
)
OR
( Keyword:
    ("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city")
)
)
AND Affiliation:(brasil OR brazil)
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2.2 IEEE Xplore

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

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(
  (
    ("Document Title":"cidade inteligente" OR
    "Document Title":"cidades inteligentes" OR
    "Document Title":"smart cities" OR
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  OR
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    "Abstract":"cidades inteligentes" OR
    "Abstract":"smart cities" OR
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  OR
  (
    ("Author Keywords":"cidade inteligente" OR
    "Author Keywords":"cidades inteligentes" OR
    "Author Keywords":"smart cities" OR
    "Author Keywords":"smart city")
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)
AND (
  "Author Affiliations":Brasil OR
  "Author Affiliations":Brazil
)
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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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TITLE-ABS-KEY ("cidade inteligente" OR "cidades inteligentes" OR
               "smart cities" OR "smart city" )

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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(
  TI=("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city"
  )
  OR
  AB=("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city"
  )
  OR
  AK=("cidade inteligente" OR "cidades inteligentes"
    OR "smart cities" OR "smart city"
  )
)
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., Villação, 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/VTCFall.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] Kozievitch, 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] Kozievitch, 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] Kozievitch, 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] Kozievitch, 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., Façal, 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-CPSCo-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-CPSCo-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., Villaçã, 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., Briganó, 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., Muntaz, S., Li, J., Gaćanin, 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., Greati, 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 LNCS**, 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/INFOCOMWKSHP50562.2020.9162725>
- [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.I., 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] Meregé, 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 Morais, 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 Franceschini, 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] Manhiça, 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/INFOCOMWKSHPS57453.2023.10225834>
- [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

- [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>