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IJCA Proceedings on International Conference
on Emerging Trends in Computing and Communication

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ICETCC 2017 - Number 2

Year of Publication: 2018

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{bibtex}icetcc89.bib{/bibtex}

Abstract

An Early Warning System (EWS) is a center kind of information driven Internet of Things (IoTs) framework utilized for environment debacle hazard and impact administration. The potential advantages of utilizing a semantic-sort EWS in corporate less demanding sensor and information source plug-and-play, less complex, wealthier, and more dynamic meta data-driven information examination and less demanding administration interoperability and arrangement. The difficulties confronted a mid hand arrangements of semantic EWSs are the requirement for adaptable time-delicate in formation trade and processing (particularly including heterogeneous information sources) and the requirement for versatility to changing ICT asset requirements in

emergency zones. We show a novel IoT EWS framework structure that addresses these difficulties, based upon a multi semantic representation demonstrate. We utilize light weight semantics for metadata to upgrade rich sensor information procurement. We utilize heavy weight semantics for top level W3C Web Ontology Language philosophy models portraying multi leveled learning bases and semantically determined choice support and work process arrangement. This approach is approved through deciding both frame works related measurements and a contextual investigation including a propelled model arrangement of the semantic EWS, coordinated with a existing EWS.

Refer

ences

- D. L. McGuinness, ''Ontologies come of age,'' in *Spinning the Semantic Web: Bringing the World Wide Web to Its Full Potential*, D. Fensel, J. Hendler, H. Lieberman, and W. Wahlster, Eds. New York, NY, USA: MIT Press, 2003, pp. 171–196.
- J. Davies, ''Lightweight ontologies,'' in *Theory and Applications of Ontology: Computer Applications*, R. Poli, M. Healy, and A. Kameas, Eds. Amsterdam, The Netherlands: Springer-Verlag, 2010, pp. 197–229.
- S. Poslad, ''Intelligent systems (IS),'' in *Ubiquitous Computing: Smart Devices, Environments and Interactions*. Chichester, U. K. : Wiley, 2009, pp. 263–268.
- L. P. Kaelbling, ''A situated-automata approach to the design of embedded agents,'' *ACM SIGART Bull.* , vol. 2, no. 4, pp. 85–88, 1991.
- P. Barnaghi, A. Sheth, and C. Henson, ''From data to actionable knowledge: Big data challenges in the Web of Things'' *IEEE Intell. Syst.* , vol. 28, no. 6, pp. 6–11, Nov. /Dec. 2013.
- C. Bizer, P. Boncz, M. L. Brodie, and O. Erling, ''The meaningful use of big data: Four perspectives—Four challenges,'' *ACM SIGMOD Rec.* , vol. 40, no. 4, pp. 56–60, 2011.
- B. Balisetal. , ''The urban flood common information space for early warning systems,'' in *Proc. Int. Conf. Comput. Sci. (ICCS)*, vol. 4. 2011, pp. 96–105.
- M. Lendholt and M. Hammitzsch, ''Generic information logistics for early warning systems,'' in *Proc. 8th Int. Conf. Inf. Syst. Crisis Response Manage.* , 2011.
- C. Arnhardtetal. , ''Sensor based Landslide Early Warning SystemSLEWS. Development of a geoservice infrastructure as basis for early warning systems for landslides by integration of real-time sensors,'' *Geotechnologien science report*, vol. 10, pp. 75–88, 2007.
- F. Fiedrich and P. Burghardt, ''Agent-based systems for disaster management,'' *Commun. ACM*, vol. 50, no. 3, pp. 41–42, 2007.

Index Terms

Computer Science

Information Science

Keywords

IoT EWS Data Acquisition Disaster Management