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Title: Architectures and systems for eHealth monitoring

Abstract:

Intelligent systems and communication technologies have made huge advances in remote eHealth monitoring and Ambient Assisted Living (AAL). There have appeared new intelligent communication architectures that use the information gathered from several types of communication networks (such as Wireless Sensor Network, Wireless Ad Hoc Networks, Wireless Mesh Networks) over any type of communication technologies (such as Device to Device, Machine to Machine, Sensor-Actuator) that allow smart remote eHealth monitoring. This speech will show some of these new systems and how intelligent algorithms can make human life more comfortable, improve the human quality of life and reduce the economic costs of the sanitary system. It will also discuss the requirements of the communication technology to collect measures from the body sensors, wearable devices and smart phones, especially from chronic patients. BigData, including data from different hospitals and the data received from the patient, with an intelligent system may warn the parents, teachers, caregivers and doctors and when the system detects something anomalous and generate alarms. It will also describe some existing secure systems for exchanging health information, data, and services between all network devices. The goal of existing architecture proposals for remote ehealth monitoring is to provide scalability, efficiency, higher service availability and flexibility while detecting if there is an emergency or not.

Bio:
Prof. Jaime Lloret (jlloret@dcom.upv.es) received his B.Sc.+M.Sc. in Physics in 1997, his B.Sc.+M.Sc. in electronic Engineering in 2003 and his Ph.D. in telecommunication engineering (Dr. Ing.) in 2006. He is a Cisco Certified Network Professional Instructor. He worked as a network designer and administrator in several enterprises. He is currently Associate Professor in the Polytechnic University of Valencia. He is the Chair of the Integrated Management Coastal Research Institute (IGIC) and he is the head of the "Active and collaborative techniques and use of technologic resources in the education (EITACURTE)" Innovation Group. He is the director of the University Diploma "Redes y Comunicaciones de Ordenadores" and of the University Master "Digital Post Production". He has been Internet Technical Committee chair (IEEE Communications Society and Internet society) for the term 2013-2015. He has

authored 22 book chapters and has more than 380 research papers published in national and international conferences, international journals (more than 140 with ISI Thomson JCR). He has been the co-editor of 40 conference proceedings and guest editor of several international books and journals. He is editor-in-chief of the "Ad Hoc and Sensor Wireless Networks" (with ISI Thomson Impact Factor), the international journal "Networks Protocols and Algorithms", and the International Journal of Multimedia Communications, IARIA Journals Board Chair (8 Journals) and he is (or has been) associate editor of 46 international journals (16 of them with ISI Thomson Impact Factor). He has been involved in more than 400 Program committees of international conferences, and more than 150 organization and steering committees. He leads many national and international projects. He is currently the chair of the Working Group of the Standard IEEE 1907.1. He has been general chair (or co-chair) of 38 International workshops and conferences (chairman of SENSORCOMM 2007, UBICOMM 2008, ICNS 2009, ICWMC 2010, eKNOW 2012, SERVICE COMPUTATION 2013, COGNITIVE 2013, ADAPTIVE 2013, 12th AICT 2016, 11th ICIMP 2016, 3rd GREENETS 2016, 13th IWCMC 2017, 10th WMNC 2017 and co-chairman of ICAS 2009, INTERNET 2010, MARSS 2011, IEEE MASS 2011, SCPA 2011, ICDS 2012, 2nd IEEE SCPA 2012, GreeNets 2012, 3rd IEEE SCPA 2013, SSPA 2013, AdHocNow 2014, MARSS 2014, SSPA 2014, IEEE CCAN 2015, 4th IEEE SCPA 2015, IEEE SCAN 2015, ICACCI 2015, SDRANCAN 2015, FMEC 2016, 2nd FMEC 2017, 5th SCPA 2017, and JITEL 2017, and local chair of MIC-WCMC 2013 and IEEE Sensors 2014). He is IEEE Senior and IARIA Fellow.