UNIVERSIDAD DE GRANADA

CITIC

Conferencia: Towards Community-Oriented Wearable Computing Systems: A Paradigm Shift to Monitor and Control Cooperative Groups of People based on Collectives of Wearables

17/03/2023

Conferencia





- **Ponente**: Prof. Giancarlo Fortino.
- **Fecha y hora**: viernes, 17 de marzo de 202
- **Lugar**: Sala d
- **Contacto**: Ju

Abstract: Gartner wearable computin be worth more thar an increasing growth caused by the COVID-19.
The industry and public sector are then pushing for innovative WCS solutions with high levels of dependability and trustworthiness that can efficiently operate in increasingly complex scenarios. Great strives have been made to realize WCS for the 24/7 monitoring of single users based on 3-tier architectures involving wearables, edge, and cloud systems. However, new requirements, specifically targeting cooperative multiple users, demands for radically new approaches, as promoted by the community-oriented WCS (CO-WCS). In this lecture, we first provide an overview of WCS based on the SPINE Body of Knowledge research and development (https://projects.dimes.unical.it/spine-bok/). Then, we focus on the requirements of the next-generation CO-WCS based on a use case driven approach. Finally, we will discuss models, architectures and tools that would be needed to implement CO-WCS.

Copyright© 2026 Universidad de Granada

Speaker: Giancarlo Fortino (IEEE Fellow 2022) is Full Professor of Computer Engineering at the Dept of Informatics, Modeling, Electronics, and Systems of the University of Calabria (Unical), Italy. He received a PhD in Computer Engineering from Unical in 2000. He is also distinguished professor at Wuhan University of Technology and Huazhong Agricultural University (China), high-end expert at HUST (China), senior research fellow at the Italian ICAR-CNR Institute, CAS PIFI visiting scientist at SIAT - Shenzhen, and Distinguished Lecturer for IEEE Sensors Council. At Unical, he is the Rector's delegate to Int'l relations, the chair of the PhD School in ICT, the director of the Postgraduate Master course in INTER-IoT, and the director of the SPEME lab as well as co-chair of Joint labs on IoT established between Unical and WUT, SMU and HZAU Chinese universities, respectively. Fortino is currently the scientific responsible of the Digital Health group of the Italian CINI National Laboratory at Unical. He is Highly Cited Researcher 2020-2022 in Computer Science by Clarivate. Currently he has 20 highly cited papers in WoS, and h-index=73 with about 20000 citations in Google Scholar. His research interests include wearable computing systems, e-Health, Internet of Things, and agent-based computing. He is author of 600 papers in int'l journals, conferences and books. He is (founding) series editor of IEEE Press Book Series on Human-Machine Systems and EiC of Springer Internet of Things series and AE of premier int'l journals such as IEEE TASE (senior editor), IEEE TAFFC-CS, IEEE THMS, IEEE T-AI, IEEE IoTJ, IEEE SJ, IEEE JBHI, IEEE SMCM, IEEE OJEMB, IEEE OJCS, Information Fusion, EAAI, etc. He chaired many int'l workshops and conferences (120+), was involved in a huge number of int'l conferences/workshops (500+) as IPC member, is/was guest-editor of many special issues (75+). He is cofounder and CEO of SenSysCal S.r.l., a Unical spinoff focused on innovative IoT systems, and recently cofounder and vice-CEO of the spin-off Bigtech S.r.l, focused on big data, AI and IoT technologies. Fortino is currently member of the IEEE SMCS BoG and of the IEEE Press BoG, and former chair of the IEEE SMCS Italian Chapter.

Resumen: Se estima que el mercado global de tecnología vestible («Wearable Computing Systems» - «WCS») tendrá un valor de más de 100 mil millones de dólares en 2024, con un crecimiento ascendente debido a la COVID-19. Esta charla pretende dar una visión general de esta tecnología, basada en la investigación, centrándose en los diferentes modelos y arquitecturas necesarias para implantar «CO-WCS».

Ponente: Giancarlo Fortino es profesor de Ingeniera Informática en la Universidad de Calabria (Unical) en Italia. También es profesor en la Wuhan University of Technology and Huazhong Agricultural University en China y sus líneas actuales de investigación incluyen los «WCS»,«eHealth»,«Internet of Things» (IoT) y «agent-based computing».

Copyright© 2026 Universidad de Granada