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Rossitza Goleva · Nuno Ricardo da Cruz Garcia ·
Ivan Miguel Pires (Eds.)


IoT Technologies for HealthCare

7th EAI International Conference, HealthyIoT 2020
Viana do Castelo, Portugal, December 3, 2020
Proceedings

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Preface

Healthy IoT 2020, the 7th EAI International Conference on IoT Technologies for HealthCare, was planned to take place in Viana do Castelo, Portugal on 2 December, 2020 under the umbrella of the 6th annual SmartCity 360° Summit. However, due to the COVID-19 crises it was organized online on 3 Dec. 2020. The event was endorsed by the European Alliance for Innovation, an international professional community-based organization devoted to the advancement of innovation in the field of ICT.

Healthy IoT 2020 was the seventh edition of an international scientific event series dedicated to the Internet of Things and Healthcare. The Internet of Things together with cloud computing have evolved multiple existing and emerging technologies, solutions and services, and can provide heterogeneous approaches towards the delivery of Healthcare 4.0 to the broad range of citizens. Healthy IoT brings together technology experts, researchers, industry and international authorities contributing towards the design, development and deployment of healthcare solutions based on IoT technologies, standards and procedures.

The technical program of Healthy IoT 2020 consisted of 12 full papers in oral presentation sessions at the main workshop tracks. The papers submitted and presented during the workshop cover many health sensors and systems technologies, applications and services as well as solutions. Multiple topics have been covered, including: remote sensing of women during pregnancy with attention to drug addiction and emergency situations; noninvasive screening of the hearing of adults based on a smartphone application; use of pressure sensors on the insoles for activity and moving problem detection; continuous stress detection based on sensor information; classification of psychological conditions; analyses of the psychological response to acoustic stimuli using sensors; visual acuity analyses supported by wearable devices; early diagnosis of kidney problems using data mining classification; study of teenager's health at school with attention to physical activity; a proposal of scenarios and time scheduling for medical applications; development of wearable devices for sport and rehabilitation tracking; the security of remote medication processes.

Mladen Veinović organized a panel discussion on the role of IT and IoT in responding to epidemic/pandemic-related challenges. It turns out that IT plays a fundamental role in mitigating risks and consequences, and providing alternative ways of performing fundamental tasks.

Coordination with the steering chair, Imrich Chlamtac, as well as the valuable support of Aleksandar Jevremović, Susanna Spinsante, Bruno Silva, Nuno M. Garcia, Nuno Pombo, Mladen Jovanović, Francisco Floréz-Revuelta, Luis Oliveira, Hugo Silva, Nenad Ristić, Marko Šarac and, Leonice Pereira were essential for the success of the workshop. We sincerely appreciate their continuous work and support.

We strongly believe that the Healthy IoT 2020 workshop provided a good forum for all researchers, developers and practitioners to discuss all scientific and technological aspects that are relevant to smart health. We also expect that the future Healthy IoT

2021 workshop will be as successful and stimulating, as indicated by the contributions presented in this volume.

December 2020

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Bruno Silva
Nuno M. Garcia
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