



SMART ACCESSIBILITY 2018

The Third International Conference on Universal Accessibility in the Internet of
Things and Smart Environments

March 25 – 29, 2018

Rome, Italy

SMART ACCESSIBILITY 2018 Editors

Lukas Smirek, Stuttgart-Media University, Germany

Jon Sanford, Georgia Tech, USA

Steven Mannheimer, Indiana University, USA

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2018) by International Academy, Research, and Industry Association (IARIA)
Please refer to the Copyright Information page.

Printed by Curran Associates, Inc. (2018)

International Academy, Research, and Industry Association (IARIA)
412 Derby Way
Wilmington, DE 19810

Phone: (408) 893-6407
Fax: (408) 527-6351

petre@iaria.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Audio Guided Driving for People with Blindness with Seated Self-balancing Personal Transporters <i>Andreas Hub and Jutta Cook</i>	1
Haptic Guided Driving with Seated Self-balancing Personal Transporters for People with Deafblindness <i>Andreas Hub and Jutta Cook</i>	5
Trusted Mobile Zone Solution Based on Virtualization Technology <i>GeonLyang Kim and JeongNyeo Kim</i>	10
Utility of a Mobile Route Planning App for People Aging with Disability <i>Jon A. Sanford, Subhrajit Guhathakurta, Sarah Melgen, and Ge Zhang</i>	12
A Qualitative Approach to Understanding User Needs for Aging with Disability <i>Elena T. Remillard, Tracy L. Mitzner, Jenny L. Singleton, and Wendy A. Rogers</i>	18
Design Criteria to Advance Technologies for the Aging Population <i>Claudia Rebola</i>	23
Universally Designed mHealth App for Individuals Aging with Multiple Sclerosis <i>Ljilja Ruzic, Harshal P. Mahajan, and Jon A. Sanford</i>	29
Effects of Advanced Driver Assistance System for Elderly's Safe Transportation <i>Ryosuke Ando, Yasuhiro Mimura, Yasuhide Nishihori, and Jia Yang</i>	36
The Role of the Internet and Technology in the Wellbeing of People with Physical Disabilities <i>Alexandra Young, Tom Dening, and Chris Greenhalgh</i>	42
TELEPROM-G: A Study Evaluating Access and Care Delivery of Telehealth Services among Community-Based Seniors with Depressive Symptoms <i>Cheryl Forchuk, Akshya Vasudev, Amer Burhan, Puneet Seth, and Tony O'Regan</i>	45
SAMIoT – Middleware based on IoT for Irrigation Planning on Large-scale Crops <i>Hugo Ordonez, Jose Luis Rivas, Juliana Sanchez, Javier Carbonell, Edgar HIncapie, and Armando Ordonez</i>	51
Experimental Study on Riding Skill for Using Standing Type Vehicles <i>Naohisa Hashimoto, Jyeon Kim, Kohji Tomita, Simon Thompson, Yusuke Takinami, and Osamu Matsumoto</i>	60
Towards Smart Public Transport Data <i>Paloma Caceres Garcia de Marina, Almudena Sierra Alonso, Belen Vela Sanchez, Jose Maria Cavero Barca, and Carlos Enrique Cuesta Quintero</i>	66

