

CURRICULUM VITAE

Name: Oresti Baños

Birth date and place: 29/06/1986, Hannover, Germany Nationality: Spanish

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Professional Situation

Position: Assistant Professor

Institution: University of Twente

Start date: 01/01/2016

Faculty: Electrical Eng., Math and Computer Science

Dedication: Full-time

Lab: Biomedical Signal and Systems (Telemedicine Group)

Academic Background

PhD degree: Postgraduate Programme in Computer and Network Engineering

Thesis title: Robust Expert Systems for more Flexible Real-World Activity Recognition

Institution: University of Granada

Start/end dates: 2010/2014

GPA: CUM LAUDE

Master degree: Computer Network Engineering

Thesis title: Automatic Recognition of Daily Physical Activity Applied to E-Health and Telecare Applications

Institution: University of Granada

Start/end dates: 2009/2011

GPA: 9.46 out of 10

Master degree: Electronic Engineer

Thesis title: Noninvasive Blood Pressure Estimation through Fusion of Multimodal Physiological Data

Institution: University of Granada

Start/end dates: 2009/2011

GPA: 8.51 out of 10

Master degree: Telecommunication Engineer

Thesis title: Design and Implementation of Monitoring Techniques for E-Health Environments

Institution: University of Granada

Start/end dates: 2004/2009

GPA: 7.98 out of 10

Professional Experience

Position: Senior Researcher

Institution: Centre for Monitoring and Coaching (CMC)
of the University of Twente

Duration from: 01/01/2016 to: present

Position: Senior Researcher

Institution: Centre for Telematics and Information
Technology (CTIT) of the University of Twente

Duration from: 01/01/2016 to: present

Position: Senior Researcher

Institution: Research Centre for Biomedical Technology and
Technical Medicine (MIRA) of the University of Twente

Duration from: 01/01/2016 to: present

Position: External Faculty Member

Institution: Doctoral Programme in Information and Communication
Technologies, University of Granada

Duration from: 01/09/2014 to: present

Position: Postdoctoral Research Fellow

Institution: Grand-ICT Center of Intelligent Interaction for Life
Companionship Experience

Duration from: 01/09/2015 to: 31/12/2015

Position: Postdoctoral Research Fellow

Institution: BK21 PLUS SW Research Institute for Global
and Creative Human Resource Incubation

Duration from: 01/09/2014 to: 31/12/2015

Position: Postdoctoral Research Fellow

Institution: Kyung Hee University (KHU)

Duration from: 01/09/2014 to: 31/12/2015

Position: Project Manager

Institution: Kyung Hee University (KHU)

Duration from: 01/09/2014 to: 31/12/2015

Position: Predoctoral Research Fellow

Centre: Research Center for Information and Communications

Technologies of the University of Granada (CITIC-UGR) *Duration from: 01/09/2010 to: 31/08/2014*
Position: Junior Researcher
Institution: University of Granada (UGR) *Duration from: 01/09/2014 to: 31/12/2015*

Research Fellowships

Grant: Grand ICT Programme Fellowship *Funded by: Korean National Research Foundation*
Centre: Kyung Hee University (KHU) *Duration from: 01/09/2015 to: 31/12/2015*
Grant: Brain Korea 21+ (BK21+) Programme Fellowship *Funded by: Korean National Research Foundation*
Centre: Kyung Hee University (KHU) *Duration from: 01/09/2014 to: 31/12/2015*
Grant: University Faculty Training (FPU) Programme Fellowship *Funded by: Spanish Ministry of Education*
Centre: Research Center for Information and Communications
Technologies of the University of Granada (CITIC-UGR) *Duration from: 01/10/2010 to: 31/08/2014*
Grant: High Performance Computing-Europa2 Programme Fellowship *Funded by: European Commission*
Centre: Technical University of Eindhoven (Tue) *Duration from: 01/02/2012 to: 02/05/2012*
Grant: FPU Programme - Overseas Programme Fellowship *Funded by: Spanish Ministry of Education*
Centre: Swiss Federal Institute of Technology Zurich (ETHZ) *Duration from: 01/09/2011 to: 31/12/2011*
Grant: Doctoral JA Excellence Grant *Funded by: Regional Government of Andalusia*
Centre: University of Granada (UGR) *Duration from: 01/09/2010 to: 01/10/2010*
Grant: UGR Graduate Research Assistantship *Funded by: University of Granada*
Centre: University of Granada (UGR) *Duration from: 01/06/2010 to: 31/05/2011*

Research Visits

Centre: Department of Signal Processing Systems (SPS), Activity and Context recognition Technologies Lab (ACTLab) Technical University of Eindhoven (TUE) *Location: Eindhoven (Netherlands)*
Person in charge of Host institution: Prof. Dr. Oliver Amft *Duration from: 01/02/2012 to: 02/05/2012*
Centre: Department of Information Technology and Electrical Engineering (D-ITET), Wearable Computing Lab, Swiss Federal Institute of Technology Zurich (ETHZ) *Location: Zürich (Switzerland)*
Person in charge of Host institution: Prof. Dr. Gerhard Tröster *Duration from: 01/09/2011 to: 31/12/2011*
Centre: Department of Electrical and Computer Engineering, Computer Laboratory of Ambient and Wearable Systems (CLAWS) University of Alabama *Location: Tuscaloosa, Alabama (US)*
Person in charge of Host institution: Prof. Dr. Edward Sazonov *Duration: 08/2011*

Coordination of R&D Projects

Project title: Development of Mining Minds Core Technology Exploiting Personal Big Data for Health and Wellness Support (Mining Minds) *Reference ID: #10049079*
Funded by: Korean Ministry of Trade, Industry and Energy (MOTIE) *Budget: 4.500.000,00 USD*
Principal Investigator: Lee, Sungyoung *Project duration: from: 2014 to: 2018*
Partners: Kyung Hee University (KHU), Green Cross Healthcare, TAPACROSS, Korea Institute of Industrial Technology (KITECH), U2 System, Pohang University of Science and Technology (POSTECH), University of Tasmania (UTAS), Soongsil University, Korea Creative Content Agency (KOCCA)
Project title: Platform for the holistic monitoring, processing and mining of human behaviour to estimate trajectories of functioning (HoliBehave) *Reference ID: NA*
Funded by: UT Center for Telematics and Information Technology *Budget: 65.000,00 EUR*
Principal Investigator: Banos, Oresti *Project duration: from: 2016 to: 2016*
Partners: University of Twente

Participation in R&D Projects

International

Project title: Intention based enhancement of reaching and grasping in physically disabled people, personalized to maximize user performance (eNHANCE)
Reference ID: EU-H2020-ICT grant #644000

Funded by: European Commission *Budget:* 3.916.055,00 €
Coordinator: Veltink, Peter *Project duration:* from: 2015 to: 2019
Partners: University of Twente, Imperial College of Science, Technology and Medicine, Roessing Research and Development BV, University College London, Eyebrain, Noldus Information Technology BV, Focal Meditech BV, Hankamp Rehab BV, Bioservo Technologies AB, Hacker Motor GMBH
Project title: Open-Source, Web-Based, Framework for Integrating Applications with Social Media Services and Personal Cloudlets (OPENi)
Reference ID: EU-FP7-ICT grant #317883

Funded by: European Commission *Budget:* 3.830.000,00 €
Coordinator: Robson, Eric *Project duration:* from: 2012 to: 2015
Partners: Waterford Institute of Technology, National Technical University of Athens, Fraunhofer Institute for Open Communication Systems, CGI, Ambisense Ltd, Velti, Betapond
Project title: Open Mashup Enterprise service platform for LinkEd data in The Telco domain (OMELETTE)
Reference ID: EU-FP7-ICT grant #257635

Funded by: European Commission *Budget:* 5.960.000,00 €
Coordinator: Villalonga, Claudia *Project duration:* from: 2010 to: 2013
Partners: CGI, HUAWEI, SAP, Technical University of Chemitz, TIE, University of Trento, Technical University of Madrid, The University of Bolton, T-Systems MMS
Project title: Wireless Health Monitoring (WHM)
Reference ID: INTERREG IV, I-1-02=091

Funded by: Euregio, European Regional Development Fund *Budget:* 2.000.000,00 €
Coordinator: Gloesekoetter, Peter *Project duration:* from: 2010 to: 2013
Partners: Muenster University of Applied Sciences, Vector Fabrics, Centric TSolve, University Twente, Medische Spectrum Twente, TU Braunschweig
Project title: HPC-Europa2: Pan-European research infrastructure on high performance computing for 21st century science
Reference ID: EU-FP7-INFRA grant #228398

Funded by: European Commission *Budget:* 13.061.754 €
Coordinator: Garofalo, Francesca *Project duration:* from: 2009 to: 2012
Partners: CINECA, EPCC, BSC, HLRS, GENCI, SARA, PSNC, UNIFOB, TCD, CSC, ICCS-NTUA
Project title: Activity and Context Recognition with Opportunistic Sensors Configurations (OPPORTUNITY)
Reference ID: EU-FP7-FET-Open grant #225938

Funded by: European Commission *Budget:* 1.508.768,00 €
Coordinator: Roggen, Daniel *Project duration:* from: 2009 to: 2012
Partners: Swiss Federal Institute of Technology (Wearable Computing Laboratory), University of Passau (Embedded System Laboratory), Johannes Kepler Universität Linz (Institut für Pervasive Computing) and École Polytechnique Fédérale de Lausanne (Center for Neuroprosthetics)

National
Project title: Advances in High Performance Computing for Machine Learning based on Heterogeneous Data Sources. Applications in Healthcare and Wellbeing
Reference ID: TIN2015-71873-R
Funded by: Spanish Ministry of Science and Education *Budget:* 117.491,00 €
Coordinator: Herrera, Luis Javier *Project duration:* from: 2016 to: 2018
Partners: University of Granada

Project title: ehp-MOBE: Energy-aware High Performance Multi-objective Optimization in Heterogeneous Computer Architectures. Applications in Biomedical Engineering
Reference ID: TIN2015-67020-P
Funded by: Spanish Ministry of Science and Education *Budget:* 98.864,00 €
Coordinator: Ortega, Julio *Project duration:* from: 2016 to: 2018
Partners: University of Granada

Project title: Cloud RTU Engineering Tool (CRET) *Reference ID:* C-4287-00
Funded by: FG-UGR-Empresa *Budget:* 30.000,00 €

Coordinator: Damas, Miguel *Project duration: from: 2016 to: 2017*
Partners: Telvent Energía, S.A. (Schneider Electric)
Project title: Development of advanced intelligent systems in high performance platforms. Application to bioinformatics and biomedical problems (DSIPA-BIO) *Reference ID: SAF2010-20558*
Funded by: Spanish Ministry of Science and Education *Budget: 181.500,00 €*
Coordinator: Rojas, Ignacio *Project duration: from: 2010 to: 2013*
Partners: University of Granada
Project title: High performance computing in bioinformatics and biomedicine by using intelligent systems (HPC-BIO)
Reference ID: P09-TIC-175476
Funded by: Dept. of Innovation, Science and Commerce, Regional Government of Andalusia (Spain) *Budget: 194.360,68 €*
Coordinator: Rojas, Ignacio *Project duration: from: 2010 to: 2013*
Partners: University of Granada
Project title: Novel smart architectures for modeling of complex systems: application to eHealth problems.
Reference ID: PP2012-PI11
Funded by: University of Granada *Budget: 3.000,00 €*
Coordinator: Pomares, Hector *Project duration: from: 2012 to: 2012*
Partners: University of Granada
Project title: Advanced computing for dynamic, adaptive and self-organizing control of complex systems. Application to industrial and biomedical problems (ADA-BIO) *Reference ID: P07-TIC-02768*
Funded by: Dept. of Innovation, Science and Commerce, Regional Government of Andalusia (Spain) *Budget: 199.157,00 €*
Coordinator: Rojas, Ignacio *Project duration: from: 2008 to: 2011*
Partners: University of Granada
Project title: Digital and Personal Environment for Health and Welfare (AmIVital)
Reference ID: CENIT2007-1010 (TID) OTRI2491; CENIT2007-1010 (TID) OTRI2553
Funded by: Centre for the Development of Industrial Technology (CDTI) and Interministerial Science and Technology Research Commission (CICYT) *Budget: 24.000.000,00 €*
Coordinator: Prieto, Alberto *Project duration: from: 2007 to: 2010*
Partners: Siemens, Telefónica I+D, Telvent Interactiva, Ericsson España, Eptron, CPI, Acerca Comunicaciones, Airzone e IS2, ITACA (Grupo TSB), Fundación CARTIF, Fundación Rioja Salud, Hospital Universitario Puerta de Hierro, Instituto de Salud Carlos III, Universidad de Granada (Dpto. ATC), Universidad de Málaga (Grupo ISIS), Universidad Politécnica de Madrid (Grupos LST, GBT, CEDITEC y DIT) and Universidad de Zaragoza (Grupo Tecnodiscap)

Participation in Academia Innovation Projects

Title: UGRASP - UGR AeroSpace Program *Reference ID: 13-29*
Funded by: University of Granada *Project duration: from: 2013 to: 2015*
Title: New learning methods applied to industrial robotics *Reference ID: 11-280*
Funded by: University of Granada *Project duration: from: 2011 to: 2013*

Teaching Accreditation

Institution: National Agency for Quality Assessment and Accreditation of Spain (ANECA)
Accreditation: Associate Professor *Awarded: 2014*

Teaching Experience

Subject: Professional Development (2.5 ECTS)
Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)
Degree: Creative Technology *Courses: 2016/2017*
Subject: Biosignals and Medical Electronics (2.5 ECTS)

Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)
Degree: Creative Technology *Courses:* 2015/2016, 2016/2017
Subject: Physical Systems and their Dynamic Behavior (2.5 ECTS)
Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)
Degree: Creative Technology *Courses:* 2015/2016, 2016/2017
Subject: Parallel Computing (6 ECTS)
Institution: Higher Technical School of Information Technology and Telecommunications Engineering (UGR)
Degree: Computer Engineering *Courses:* 2013/2014, 2012/2013

(Co)supervised PhD Thesis

Title: Adaptive Activity Recognition based on Hierarchical Multisensor Fusion
Author: Tae Ho Hur (Kyung Hee University, South Korea) *Defense date:* TBA
Title: Analysis of Perceptions and Factual Correlations in Physical Endurance and Daily Behavior
Author: Ignacio Díaz (University of Granada, Spain) *Defense date:* TBA
Title: Ontology Engineering and Reasoning to Support Real World Behavior Recognition
Author: Claudia Villalonga (University of Granada, Spain) *Defense date:* December 2016

(Co)supervised MSc Thesis

Title: Algorithm for the automatic analysis of the QT complex based on 4x3-lead ECGs (tentative title)
Author: Judith Elshof (University of Twente, Netherlands) *Defense date:* November 2016
Title: Development of an intelligent mHealth system to predict trunk endurance and muscle fatigue
Author: Ignacio Díaz (University of Granada, Spain) *Defense date:* September 2016
Title: Mobile health system for evaluation of breast cancer patients during treatment and recovery phases
Author: Joaquin Ollero (University of Granada, Spain) *Defense date:* September 2016
Title: Development of a platform for the exchange of datasets with integrated opportunities for artificial intelligence using MatLab
Author: Christian Wansing (University of Applied Sciences Münster, Germany) *Defense date:* July 2015
Title: An innovative clinical support system for trunk endurance assessment
Author: Ignacio Díaz (University of Granada, Spain) *Defense date:* June 2015
Title: Automatic detection of on-body sensors location for opportunistic and robust inference of behavior
Author: Marta Gálvez (University of Granada, Spain) *Defense date:* February 2014
Title: mHealthDroid: A toolkit for rapid development of mHealth applications
Author: Alejandro Sáez (University of Granada, Spain) *Defense date:* December 2013
Title: Design, implementation and validation of a framework for agile development of mHealth applications
Author: Rafael García (University of Granada, Spain) *Defense date:* December 2013
Title: Window size effect in activity recognition. Improving systems reliability through multi-segmented fusion
Author: Juan Manuel Gálvez (University of Granada, Spain) *Defense date:* September 2013
Title: Android APP for biomedical monitoring
Author: Hendrik Mende (University of Applied Sciences Münster, Germany) *Defense date:* October 2012
Title: Development of an Android application for the monitoring, storage and upload of biomedical data
Author: Andreas Hermes (University of Applied Sciences Münster, Germany) *Defense date:* October 2012
Title: Signal preprocessing effects on daily living activity recognition systems
Author: Juan Manuel Gálvez (University of Granada, Spain) *Defense date:* September 2012
Title: Sensmotion: APP for daily living activities monitoring
Author: Raúl Nadal (University of Granada, Spain) *Defense date:* September 2012
Title: Human Activity Recognition based on an application for the Android operating system
Author: Jens Ostrowski (University of Applied Sciences Münster, Germany) *Defense date:* September 2011

(Co)supervised BSc Thesis

Title: Tracing medical equipment through intelligent distributed sensors (tentative title)
Author: Dennis Rieffe (University of Twente, Netherlands) *Defense date:* February 2017

Title: Automatic performance status evaluation and physical activity recognition in cancer patients for medical diagnosis assistance
Author: Salvador Moreno (University of Granada, Spain) *Defense date:* July 2016

Title: Automatic estimation of knee alignment based on depth video
Author: Carlos Bailon (University of Granada, Spain) *Defense date:* July 2016

Title: Incorporating a Crutch into Gait Rehabilitation Floor Data
Author: Ruben van der Berg (University of Twente, Netherlands) *Defense date:* July 2016

List of Publications

- Journals (SCI-E):

Siddiqi M. H., Ali M., Abdelrahman Eldib, M. E., Khan, A., Banos, O., Khan, A. M., Lee, S. Choo, H., Evaluating Real-life Performance of the State-of-the-art in Facial Expression Recognition using a Novel YouTube-based Datasets. *Multimedia Tools and Applications* (2017) {IF=1.331, Q2} [ACCEPTED]

Villalonga, C., Pomares, H., Rojas, I., Banos, O. MIMU-Wear: Ontology-based Sensor Selection for Real-World Wearable Activity Recognition. *Neurocomputing* (2016) {IF=2.392, Q1} [ACCEPTED]

Villalonga, C., Razzaq, M.-A., Ali Khan, W., Pomares, H., Rojas, I., Lee, S., Banos, O. Ontology-based High-Level Context Inference for Human Behavior Identification. *Sensors*, vol. 16, no. 10, pp. 1-19 (2016) {IF: 2.033, Q1}

Banos, O., Villalonga, C., Bang, J. H., Hur, T. H., Kang, D., Park., S.-B., Hyunh-The, T., Vui, L. B., Amin, M.-B., Razzaq, M.-A., Ali Khan, W., Hong, C.-S., Lee, S. Human Behavior Analysis by means of Multimodal Context Mining. *Sensors*, vol. 16, no. 8, pp. 1-19 (2016) {IF=2.033, Q1}

Bilal Amin, M., Banos, O., Ali Khan, W., Rizvi, B. A., Gong, J., Mao, B., Cho, S. H., Hussain, S., Ali, T., Aktar, U., Chung, T. C., Lee, S. On curating multimodal sensory data for personalized health and wellness services. *Sensors*, vol. 16, no. 7, pp. 1-27 (2016) {IF=2.033, Q1}

Huynh-The, T., Banos, O., Sungyoung, L., Yoon, Y., Le-Tien, T. Improving Digital Image Watermarking by Means of Optimal Channel Selection. *Expert Systems with Applications*, vol. 62, pp. 177-189 (2016) {IF=2.981, Q1}

Banos, O., Bilal Amin, M., Ali Khan, W., Afzel, M., Hussain, M., Kang, B. H., Lee, S. The Mining Minds Digital Health and Wellness Framework. *BioMedical Engineering OnLine*, vol. 15, no. 1, pp. 165-186 (2016) {IF=1.382, Q3}

Huynh-The, T., Banos, O., Sungyoung, L., Byeong Ho, K., Eun, S. NIC: A Robust Background Extraction Algorithm for Foreground Detection in Dynamic Scenes. *IEEE Transactions on Circuits and Systems for Video Technology*, vol. PP, no. 99, pp. 1-13 (2016) {IF=2.254, Q1}

Banos, O., Villalonga, C., Garcia, R., Saez, A., Damas, M., Holgado, J. A., Lee, S., Pomares, H., Rojas, I. Design, implementation and validation of a novel open framework for agile development of mobile health applications. *BioMedical Engineering OnLine*, vol. 14, S2-S6, pp. 1-20 (2015) {IF=1.382, Q3}

Huynh-The, T., Banos, O., Le, B. V., Bui, D. M., Sungyoung, L., Yoon, Y., Lee, S. Traffic Behavior Recognition Using the Pachinko Allocation Model. *Sensors*, vol. 15, no. 6, pp. 16040-16059 (2015) {IF=2.033, Q1}

Bilal Amin, M., Ali Khan, W., Hussain, S., Bui, D. M., Banos, O., Kang, B. H., Lee, S. Evaluating Large-scale Biomedical Ontology Matching Over Multicore Platforms. *IETE Technical Review*, Online (2015) {IF=1.304, Q2}

Banos, O., Moral-Munoz, J.A., Diaz-Reyes, I., Arroyo-Morales, M., Damas, M., Herrera-Viedma, E., Hong, C.S., Lee, S., Pomares, H., Rojas, I., Villalonga, C. mDurance: a Novel Mobile Health System to Support Trunk Endurance Assessment. *Sensors*, vol. 15, pp. 13159-13183 (2015) {IF=2.033, Q1}

Banos, O., Damas, M., Guillen, A., Herrera, L.J., Pomares, H., Rojas, I., Villalonga, C. Multi-sensor fusion based on asymmetric decision weighting for robust activity recognition. *Neural Processing Letters*, vol. 42, no. 1, pp. 5-26 (2015) {IF=1.747, Q2}

Banos, O., Villalonga, C., Damas, M., Glösekötter, P., Pomares, H., Rojas, I. PhysioDroid: combining wearable health sensors and smartphones for a pervasive, continuous and personal monitoring. *The Scientific World Journal*, vol. 2014, no. 490824, pp. 1-11 (2014) {IF=1.219, Q2}

Banos, O., Toth M. A., Damas, M., Pomares, H., Rojas, I. Dealing with the effects of sensor displacement in wearable activity recognition. *Sensors*, vol. 14, no. 6, pp. 9995-10023 (2014) {IF=2.245, Q1}

Banos, O., Galvez, J. M., Damas, M., Pomares, H., Rojas, I. Window size impact in activity recognition. *Sensors*, vol. 14, no. 4, pp. 6474-6499 (2014) {IF=2.245, Q1}

Banos, O., Damas, M., Pomares, H., Rojas, F., Delgado-Marquez, B., Valenzuela, O. Human activity recognition based on a sensor weighting hierarchical classifier. *Soft Computing*, vol. 17, pp. 333-343 (2013) {IF=1.300, Q2}

Banos, O., Damas, M., Pomares, H., Rojas, I. On the Use of Sensor Fusion to Reduce the Impact of Rotational and Additive Noise in Human Activity Recognition. *Sensors*, vol. 12, no. 6, pp. 8039-8054 (2012) {IF=1.953, Q1}

Banos, O., Damas, M., Pomares, H., Prieto, A., Rojas, I. Daily Living Activity Recognition based on Statistical Feature Quality Group Selection. *Expert Systems with Applications*, vol. 39, no. 9, pp. 8013-8021 (2012) {IF=1.854, Q1}

- Other international journals:

Banos, O., Bilal Amin, M., Ali Khan, W., Afzel, M., Ali, T., Kang, B. H., Lee, S. Mining Minds: an innovative framework for personalized health and wellness support. *EAI Endorsed Transactions on Pervasive Health and Technology*, vol. 15, no. 2, pp. 1-8 (2015)

Banos, O., Ali Khan, W., Bilal Amin, M., Hur, T. H., Bang, J. H., Kang, D. U., Hussain, M., Afzel, M., Ali, T., Lee, S. Mining Minds Healthcare Framework based on Big Data. *The Journal of The Korean Institute of Communication Sciences*, vol. 32, no. 11, pp. 12-20 (2015).

- Book chapters:

Banos, O., Toth M. A., Damas, M., Pomares, H., Rojas, I. Amft, O. Evaluation of inertial sensor displacement effects in activity recognition systems. *Science and Supercomputing in Europe (Information & Communication Technologies), HPC-Europe 2* (2013)

Damas, M., Ortega, J., Pomares, H., Banos, O. Parallel Hybrid Method Applied to Water Distribution Networks scheduling. *Science and Supercomputing in Europe (Information & Communication Technologies), HPC-Europe 2* (2010) ISBN: 978-88-86037-24-2

- International Conferences:

Moreno, S., Damas, M., Pomares, H., Moral-Munoz J.-A., Banos, O. First Approach to Automatic Performance Status Evaluation and Physical Activity Recognition in Cancer Patients. *IUCC 2016*, Granada, Spain, December 14-16, (2016)

Villalonga, C., Pomares, H., Banos, O. Analysis of the Innovation Outputs in mHealth for Patient Monitoring. *IUCC 2016*, Granada, Spain, December 14-16, (2016)

Bailon, C., Damas, M., Pomares, H., Banos, O. First Approach to Automatic Measurement of Frontal Plane Projection Angle During Single Leg Landing Based on Depth Video. *UCAmI 2016*, Las Palmas, Spain, November 29-December 2, (2016)

Bang, J. H., Kang, D. U., Hur, T. H., Hyunh-The, T., Razzaq, M., Ali Khan, W., Banos, O., Lee, S. IoT based Human Centric Context Awareness Framework for Healthcare and Wellness Platform. *International Symposium on Perception, Action and Cognitive Systems (PACS2016)*, Seoul, South Korea, October 27-28, (2016).

Siddiqi, M. H., Ali, M., Idris, M., Banos, O., Lee, S., Lee, H. C., A Novel Dataset for Real-life Evaluation of Facial Expression Recognition Methodologies. *CCAI 2016*, May 31-June 3, (2016)

Nugent, C., Cleland, I., Santanna, A., Synnott, J., Espinilla, M., Banos, O., Lundstrom, J., Hallberg, J., Calzada, A. An initiative for the creation of open datasets within pervasive healthcare. *PervasiveHealth 2016*, Cancun, Mexico, May 16-19, (2016)

Guillen, A., Herrera, L. J., Banos, O., Garcia-Saura, P. L., Munoz, A., Guillen, J. F. A new approach to improve coping strategies to surgery in children. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2016)*, Granada, Spain, April 20-22, (2016)

Villalonga, C., Banos, O., Pomares, H., Rojas, I., Lee, S. High-Level Context Architecture for Real Time Identification of Human Behavior. *IWBBIO 2016*, Granada, Spain, April 20-22, (2016)

Moreno, S., Damas, M., Pomares, H., Moral-Munoz, J. A., Banos, O. A Gamified System to Support Cancer Patients Recovery. *IWBBIO 2016*, Granada, Spain, April 20-22, (2016)

Banos, O., Villalonga, C., Bang, J. H., Hur, T. H., Kang, D. W., Park, S. B., Hyunh-The, T., Vui, L. B., Lee, S. Inferring Human Behavior by means of Multimodal Context Mining. *IWBBIO 2016*, Granada, Spain, April 20-22, (2016)

Banos, O., Damas, M., Guillen, A., Herrera, L. J., Pomares, H., Rojas, I., Villalonga, C., Lee, S. On the Development of A Real-Time Multi-Sensor Behavior Recognition System. *IWAAL 2015*, Patagonia, Chile, December 1-4, (2015)

Villalonga, C., Banos, O., Ali Khan, W., Ali, T., Razzaq, M. A., Lee, S., Pomares, H., Rojas, I. High-Level Context Inference for Human Behavior Identification. *IWAAL 2015*, Patagonia, Chile, December 1-4, (2015)

Ali, W. K., Amin, M. B., Banos, O., Ali, T., Hussain, M., Afzal, M., Hussain, S., Hussain, J., Ali, R., Ali, M., Kang, D. U., Bang, J. H., Hur, T. H., Ali, B., Idris, M., Razzaq, A., Lee, S., Kang, B. H. Mining Minds: Journey of Evolutionary Platform for Ubiquitous Wellness. *u-Healthcare 2015*, Osaka, Japan, Nov 30-Dec 2, (2015)

Wansing, C., Banos, O., Gloesekoetter, P., Pomares, H., Rojas, I. Development of a platform for the exchange of biodatasets with integrated opportunities for artificial intelligence using MatLab. *WCCS 2015*, Marrakech, Morocco, November 23-25, (2015)

Huynh-The, T., Banos, O., Le, B.-V., Bui, D.-M., Lee, S., Yoon, Y., Le-Tien, T. PAM-Based Flexible Generative Topic Model for 3D Interactive Activity Recognition. *ATC 2015*, Hochiminh, Vietnam, October 14-16, (2015)

Huynh-The, T., Banos, O., Le, B.-V., Bui, D.-M., Lee, S., Yoon, Y., Le-Tien, T. Background Subtraction With Neighbor-based Intensity Correction Algorithm. *ATC 2015*, Hochiminh, Vietnam, October 14-16, (2015)

Banos, O., Moral-Munoz, J.A., Arroyo-Morales, M., Pomares, H., Rojas, I., Villalonga, C., Bang, J.H., Kang, D.U., Hong, C. S., Lee, S. Facilitating Trunk Endurance Assessment by means of Mobile Health Technologies. *UbiComp 2015*, Osaka, Japan, September 7-11, (2015)

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- Villalonga, C., Banos, O., Pomares, H., Rojas, I. An Ontology for Dynamic Sensor Selection in Wearable Activity Recognition. *IWBIO 2015*, Granada, Spain, April 15-17, (2015)
- Hyunh-The, T., Banos, O., Lee, S., Yoon, Y., Le-Tien, T. A Novel Watermarking Scheme for Image Authentication in Social Networks. *IMCOM 2015*, Bali, Indonesia, January 8-10, (2015)
- Banos, O., Garcia, R., Holgado, J. A., Damas, M., Pomares, H., Rojas, I., Saez, A., Villalonga, C. mHealthDroid: a novel framework for agile development of mobile health applications. *IWAAL 2014*, Belfast, Northern Ireland, December 2-5, (2014)
- Banos, O., Galvez, J. M., Damas, M., Pomares, H., Rojas, I. Evaluating the effects of signal segmentation on activity recognition. *IWBIO 2014*, Granada, Spain, April 7-9, (2014)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Handling displacement effects in on-body sensor-based activity recognition. *IWAAL 2013*, San José, Costa Rica, December 2-6, (2013)
- Herrera L. J., Rojas, I., Pomares, H., Guillen A., Valenzuela, O., Banos, O. Classification of MRI images for Alzheimer's disease detection. *BioMedCom 2013*, Washington D.C., US, September 8-14, (2013)
- Valenzuela, O., Rojas, F., Herrera, L. J., Ortuno, F., Banos, O., Ruiz, G., Tribak, H., Pomares, H., Rojas, I. Intelligent systems to autonomously classify several arrhythmia using information from ECG. *BioMedCom 2013*, Washington D.C., US, September 8-14, (2013)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Activity recognition based on a multi-sensor meta-classifier. *IWANN 2013*, Tenerife, Spain, June 12-14, (2013)
- Banos, O., Damas, M., Glösekötter, P., Hermes, A., Mende, H., Pomares, H., Rojas, I. PhysioDroid: an app for physiological data monitoring. *IWBIO 2013*, Granada, Spain, March 18-20, (2013)
- Banos, O., Toth, M. A., Damas, M., Pomares, H., Rojas, I., Amft, O. A benchmark dataset to evaluate sensor displacement in activity recognition. *UbiComp 2012*, Pittsburgh, US, September 5-8, (2012)
- Banos, O., Calatroni, A., Damas, M., Pomares, H., Rojas, I., Troester, G., Sagha, H., Millan, J. del R., Chavarriaga, R., Roggen, D. Kinect=IMU? Learning MIMO Signal Mappings to Automatically Translate Activity Recognition Systems Across Sensor Modalities. *ISWC 2012*, Newcastle, UK, June 18-22 (2012)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Human multisource activity recognition for AAL problems. *UCAml 2011*, Riviera Maya, México, December 5-9, (2011)
- Banos, O., Damas, M., Pomares, H., Rojas, I., Prieto, B. Application of a novel feature selector for human activity recognition based on inertial monitored data. *ICAI 2011*, Las Vegas, Nevada, US, July 18-21, (2011)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Recognition of Human Physical Activity based on a novel Hierarchical Weighted Classification scheme. *IJCNN 2011*, San José, California, US, July 31- August 5, (2011)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Automatic Recognition of Daily Living Activities based on a Hierarchical Classifier. *IWANN 2011*, Torremolinos, Málaga, Spain, June 8-10, (2011)
- Banos, O., Pomares, H., Rojas, I. Ambient Living Activity Recognition based on Feature-set Ranking Using Intelligent Systems. *IJCNN 2010*, Barcelona, Spain, July 18-23, (2010)
- Banos, O., Pomares, H., Rojas, I. Novel Method for Feature-set Ranking Applied to Physical Activity Recognition. *IEA/AIE 2010*, Cordoba, Spain, June 1-4, pp. 637-642 (2010)

Invited Talks

Venue: International Workshop on Big Data & Knowledge for Healthcare

Talk: Mining Minds: an Innovative Framework for Personalized Health and Wellness Support

Sponsored by: Brain Korea 21 Plus, NRF, Korea

Date: November 2015

Participation in PhD Thesis Committees

Title: DARP: a New Routing Algorithm for Large Communication Infrastructures

Student: Francisco José Estévez Ortiz (University of Granada, Spain)

Defense date: June 20, 2016

Participation in PhD Thesis External Reviews

Title: e-MoDe: A Framework to support the development of mobile telemonitoring platforms

Student: Angel Ruiz Zafra (University of Granada, Spain)

Review date: June 11, 2016

Awards

Distinction: Second prize in the VI UGR Entrepreneurial contest

Awarded by: University of Granada (“as supervisor of the mDurance project”)

Date: November 2016

Distinction: Talentum Startup Grant

Awarded by: Telefonica Spain (“as supervisor of the mDurance project”)

Date: June 2016

Distinction: Second prize to the best project in Telecommunications Engineering

Awarded by: University of Granada (“as supervisor of the mDurance project”)

Date: May 2016

Distinction: “Emilio Herrera Linares” to the Best Spanish National Graduate Research Project

Awarded by: University of Granada (“as supervisor of the mHealthDroid project”)

Date: June 2014

Distinction: Best Paper Award of 5th International Work-conference on Ambient Assisted Living and Active Ageing (IWAAL 2013)

Awarded by: IWAAL2013 Steering Committee

Date: December 2013

Distinction: Best academic record of the University of Granada (Electronic Engineering)

Awarded by: University of Granada

Date: February 2011

Distinction: IX Certamen Archimedes to the Best Spanish National Graduate Research Project

Awarded by: Spanish Ministry of Education, CSIC, Astrazeneca Foundation, Orange Foundation, Banco Santander

Date: November 2010

Distinction: “Emilio Herrera Linares” to the Best Spanish National Graduate Research Project

Awarded by: University of Granada

Date: June 2010

Organisational Positions

Member of CITIC-UGR Executive Board (2011/2014), CITIC-UGR Scientific Committee (2011/2014), IEEE Engineering in Medicine and Biology Society (EMBS) (#93660605, 2015/today), International Neural Network Society (INNS) (#ID4521, 2011/today), Spanish National Society of Computer Architecture and Computer Technology (SARTECO) (2011/today) and Department of Computer Architecture and Computer Technology Board (2010/2014)

Service

Steering Committee member at the International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO2017). Organizing Committee member (Health Track Co-Chair) and Program Committee member at the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAI2016). Organizing Committee member (Publicity Co-Chair) and Program Committee member at the EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth2016). Principal organizer of the Workshop on Smart Ubiquitous Technologies for Human Behaviour Coaching (SUT4Coaching2016, within IEEE IUCC2016). Principal organizer of the Special Session on Human Behavior Monitoring, Analysis and Understanding (HBMAU2016, co-located with IWBBIO2016). Co-organizer of the Workshop on Open Data in Pervasive Health (within the Future of Pervasive Health workshop, co-located with PervasiveHealth2016). Program Committee member at the EAI International Conference on Body Area Networks (BodyNets 2016). Program Committee member at the EAI International Conference on Smart Objects and Technologies for Social Good (GOODTECHS2016). Program Committee member and Session Chair at the International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO2016, IWBBIO2015, IWBBIO2014, and IWBBIO2013). Program Committee member at the IEEE International Conference on Ubiquitous Computing and Communications (IUCC2016), the International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM2016), the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAI2016), the International Conference on Software, Knowledge, Intelligent Management and Applications (SKIMA2015). Reviewers Committee member at the ACM International Joint

Conference on Pervasive and Ubiquitous Computing (UbiComp2015, UbiComp2016), the International Symposium on Wearable Computers (ISWC2015, ISWC2016) and the ACM Conference on Human Factors in Computing Systems (CHI2016)

Associate Editor of Human-centric Computing and Information Sciences (Springer), Guest Editor of the Special Issue on Smart Sensing Technologies for Personalised Coaching of the SENSORS journal (MPDI)

Guest Editor of the Special Issue on Selected Papers from UCAml2016 of the Journal of Ambient Intelligence and Humanized Computing (Springer)

Reviewer of the international journals "Journal of Medical and Biological Engineering" (Springer), "Biomedical Engineering Online" (BMC), "Journal of Biomedical Informatics" (Elsevier), "Medical Engineering and Physics" (Elsevier), "Journal of Ambient Intelligence and Smart Environment" (IOPress), "Electronics" (MDPI), "Sensors" (MDPI), "Journal of System Architecture" (Elsevier), "Journal of Network and Computer Applications" (Elsevier) "The Scientific World Journal" (Hindawi), "International Journal of Soft Computing and Applications" (Aloy Publishers), "Computer Vision and Image Understanding" (Elsevier), "Expert Systems with Applications" (Elsevier), "Applied Intelligence" (Springer), "Journal of Ambient Intelligence and Humanized Computing" (Springer), "Pervasive and Mobile Computing" (Elsevier), "IEEE Transactions on Industrial Informatics" (IEEE), Computers and Electrical Engineering (Elsevier) and "IEEE Transactions on Human-Machine Systems" (IEEE)