

CURRICULUM VITAE



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EDUCATION

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 and 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 Engineering
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 Engineering
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

Current position

Position: Assistant Professor *Institution:* University of Granada
Start date: 01/03/2018 *Faculty:* Information Technology and Telecommunications Eng.
Dedication: Full-time *Lab:* Computer Architecture & Computer Technology

Current affiliations

Position: Senior Researcher
Institution: Research Center for Information and Communications Technologies - University of Granada (CITIC-UGR) *Duration from:* 01/03/2018 to: present

Position: Senior Researcher (Collaborator)
Institution: Biomedical Signal and Systems (Telemedicine Group), Faculty of Electrical Eng., Math and Computer Science, University of Twente *Duration from:* 01/03/2018 to: present

Previous positions

Position: Assistant Professor
Institution: Biomedical Signal and Systems (Telemedicine Group) Faculty of Electrical Eng., Math and Computer Science, University of Twente *Duration from:* 01/01/2016 to: 28/02/2018

Position: Senior Researcher
Institution: Centre for Monitoring and Coaching (CMC) of the University of Twente *Duration from:* 01/01/2016 to: 28/02/2018

Position: Senior Researcher
Institution: Research Centre for Biomedical Technology and

Technical Medicine (MIRA) of the University of Twente *Duration from: 01/01/2016 to: 28/02/2018*
Position: External Faculty Member
Institution: Doctoral Programme in Information and Communication Technologies, University of Granada *Duration from: 01/09/2014 to: 28/02/2018*
Position: Senior Researcher
Institution: Centre for Telematics and Information Technology (CTIT) of the University of Twente *Duration from: 01/01/2016 to: 31/12/2017*
Position: Postdoctoral Research Fellow
Institution: Grand-ICT Center of Intelligent Interaction for Life Companionship Experience, Kyung Hee University (KHU) *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, 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: Postdoctoral Research Fellow
Institution: Research Center for Information and Communications Technologies - University of Granada (CITIC-UGR) *Duration from: 01/05/2014 to: 31/08/2014*
Position: Predoctoral Research Fellow
Centre: Research Center for Information and Communications Technologies - University of Granada (CITIC-UGR) *Duration from: 01/09/2010 to: 31/08/2014*

RESEARCH

Individual 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

Principal Investigator of R&D Projects

Project title: Platform for the holistic monitoring, processing and mining of human behaviour to estimate trajectories of functioning (HoliBehave)
Reference ID: NA
Funded by: Center for Telematics and Information Technology
Budget: 65.000,00 EUR
Principal Investigator: Banos, Oresti
Project duration: from: 2016 to: 2017
Partners: University of Twente

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 \$
Principal Investigator: Lee, Sungyoung
Project duration: from: 2014 to: 2018
Partners: Kyung Hee University, Green Cross Healthcare, TAPACROSS, Korea Institute of Industrial Technology, U2 System, Pohang University of Science and Technology, University of Tasmania, Soongsil University, Korea Creative Content Agency

Workpackage Leadership of R&D Projects

Project title: Council of Coaches (COUCH)
Reference ID: EU-H2020-Health grant #769553
Funded by: European Commission
Budget: 4.636.000,00 \$
Coordinator: Hermens, Hermie
Project duration: from: 2017 to: 2020
Partners: University of Twente, Roessingh Research and Development, Danish Board of Technology Foundation, Université Pierre et Marie Curie - Paris 6, University of Dundee, Universitat Politècnica de València, Innovation Sprint

Participation in International R&D Projects

Project title: Intelligent Medical Platform Research Center (IMPRC)
Reference ID: IITP-2017-01629
Funded by: Ministry of Science and ICT
Budget: 4.636.000,00 \$
Coordinator: Lee, Sungyoung
Project duration: from: 2017 to: 2020
Partners: Kyung Hee University, Kwangwoon University, Sejong University, University of Tasmania, Kyung Hee University Medical Center, Asan Medical Center, Kyung Hee University Hospital at Gangdong, Seoul National University Bundang Hospital, Seoul ST. Mary's Hospital, Tapacross, Xii-Lab, Life Semantics, Hein & Dewitt

Project title: Soft modular biomimetic exoskeleton to assist people with mobility impairments (XOSOFT)
Reference ID: EU-H2020-ICT grant #688175
Funded by: European Commission
Budget: 5.420.000,00 €
Coordinator: Ortiz, Jesus
Project duration: from: 2016 to: 2019
Partners: Fondazione Istituto Italiano di Tecnologia, Consejo Superior de Investigaciones Científicas, Saxion University of Applied Science, University of Limerick, Zurich University of Applied Sciences, Roessingh Research and Development, accelopment AG, Geriatrie-Zentrum Erlangen, Össur HF

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: Koopman, Bart
Project duration: from: 2015 to: 2019
Partners: University of Twente, Imperial College of Science, Technology and Medicine, Roessingh 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: 13.061.754,00 €

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, University of Passau, Johannes Kepler Universität Linz, École Polytechnique Fédérale de Lausanne

Participation in National R&D Projects

Project title: A Healthy Mind in a Healthy Body

Reference ID: NA

Funded by: Menzis Health Insurance

Budget: 50.000,00 €

Coordinator: van Det, Marc

Project duration: from: 2018 to: 2019

Partners: Ziekenhuisgroep Twente, University of Twente

Project title: Symbionics: creating Co-Adaptive Assistive Devices

Reference ID: P12-03

Funded by: Applied and Engineering Sciences (TTW) division of the Netherlands Organisation for Scientific Research (NWO)

Budget: 3.980.000,00 €

Coordinator: Koopman, Bart

Project duration: from: 2014 to: 2019

Partners: University of Twente, TU Delft, VU University, Radboud University Nijmegen Medical Centre, University Medical Centre Groningen, Maastricht University Medical Centre

Project title: ADAPT

Reference ID: 13535

Funded by: Applied and Engineering Sciences (TTW) division of the Netherlands Organisation for Scientific Research (NWO)

Budget: 750.000,00 €

Coordinator: Meijer, Kenneth

Project duration: from: 2014 to: 2019

Partners: Maastricht University Medical Centre, University of Twente, VU University, Rijksuniversiteit Groningen

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 Innovation *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 *Budget:* 3.000,00 €
Funded by: University of Granada *Project duration: from: 2012 to: 2012*
Coordinator: Pomares, Hector
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)

Scientific Publications

----- Journals (SCI-E) -----

Banos, O., Hervas, R. Ubiquitous computing for health applications. Journal of Ambient Intelligence and Humanized Computing, [ONLINE] (2018) {IF=1.423, Q3}

Banos, O., Hermens, H., Nugent, C., Pomares, H. Smart Sensing Technologies for Personalised e-Coaching. *Sensors*, vol. 18, no. 1751, pp. 1-4 (2018) {IF=2.475, Q2}

Wohlfahrt-Laymann, J., Hermens, H., Villalonga, C., Vollenbroek-Hutten, M., Banos, O. MobileCogniTracker - A mobile experience sampling tool for tracking cognitive behaviour. *Journal of Ambient Intelligence and Humanized Computing*, [ONLINE] (2018) {IF=1.423, Q3}

Banos, O., Nugent, C. E-Coaching for Health. *Computer*, vol. 51, no. 3, pp. 12-15 (2018) {IF=1.940, Q1}

Bailon, C., Damas, M., Pomares, H., Banos, O. SPIRA: an automatic system to support lower limb injury assessment. *Journal of Ambient Intelligence and Humanized Computing*, [ONLINE] (2018) {IF=1.423, Q3}

Hussain, J., UI-Hassan, A., Muhammad-Bilal, H.-S., Ali, R., Afzal, M., Hussain, S., Bang, J., Banos, O., Lee, S. Model-Based Adaptive User Interface based on Context and User Experience Evaluation. *Journal on Multimodal User Interfaces*, vol. 12, no. 1, pp. 1-16 (2018) {IF=1.140, Q3}

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*, vol. 77, no. 1, pp. 917-937 (2018) {IF=1.541, Q2}

Hur, T., Bang, J., Kim, D., Banos, O., Lee, S. Smartphone Location-Independent Physical Activity Recognition based on Transportation Natural Vibration Analysis. *Sensors*, vol. 17, no. 4, pp. 1-21 (2017) {IF=2.475, Q2}

Villalonga, C., Pomares, H., Rojas, I., Banos, O. MIMU-Wear: Ontology-based Sensor Selection for Real-World Wearable Activity Recognition. *Neurocomputing*, vol. 250, pp. 76-100 (2017) {IF=3.241, Q1}

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. 27, no. 7, pp. 1478-1490 (2017) {IF=3.558, Q1}

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: 2.677, Q1}

Banos, O., Villalonga, C., Bang, J. H., Hur, T. H., Kang, D., Park, S.-B., Huynh-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=2.677, 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 platforms. *Sensors*, vol. 16, no. 7, pp. 1-27 (2016) {IF=2.677, 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=3.928, 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=1.683, Q3}

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*, vol. 33, no. 4, pp. 415-427 (2016) {IF=1.330, Q3}

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=1.304, 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}

----- Non-SCI 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)

----- Books -----

Banos, O. Robust Expert Systems for more Flexible Real-World Activity Recognition. Ph.D. Thesis, University of Granada (2014) ISBN: 978-84-9083-078-9

----- 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 -----

Recher, F., Banos, O., Corien, D. M., Schaake, L., Baten, C., Buurke, J. Optimizing activity recognition in stroke survivors for wearable exoskeletons. *IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob 2018)*, Enschede, Netherlands, August 26-29, (2018)

op den Akker, H., op den Akker, R., Beinema, T., Banos, O., Heylen, D., Bedsted, B., Pease, A., Pelachaud, C., Traver-Salcedo, V., Kyriazakos, S., Hermens, H. Council of Coaches - A Novel Holistic Behavior Change Coaching Approach. *ICT for Ageing Well (ICT4AWE 2018)*, Funchal, Portugal, March 22-23, (2018)

- Wohlfahrt-Laymann, J., Hermens, H., Villalonga, C., Vollenbroek-Hutten, M., Banos, O. Enabling remote assessment of cognitive behaviour through mobile experience sampling. *EmotionAware*, within IEEE International Conference on Pervasive Computing and Communications (*Percom 2018*), Athens, Greece, March 19-23, (2018)
- Villalonga, C., Op den Akker, H., Hermens, H., Herrera, L.J., Pomares, H., Rojas, I., Valenzuela, O., Banos, O. Automatic mapping of motivational text messages into ontological entities for smart coaching applications. International Conference on Ubiquitous Computing and Ambient Intelligence (*UCAmI 2017*), Philadelphia, USA, November 7-10, (2017)
- Diaz-Reyes, I., Damas, M., Moral-Munoz, J.A., Banos, O. A Classification System to Assess Low Back Muscle Endurance and Activity Using mHealth Technologies. *International Work-Conference on Artificial Neural Networks (IWANN 2017)*, Cadiz, Spain, June 14-16, (2017)
- Bailon, C., Damas, M., Pomares, H., Banos, O. Automatic 2D Motion Capture System for Joint Angle Measurement. *International Work-Conference on Artificial Neural Networks (IWANN 2017)*, Cadiz, Spain, June 14-16, (2017)
- Villalonga, C., Op den Akker, H., Hermens, H., Herrera, L.J., Pomares, H., Rojas, I., Valenzuela, O., Banos, O. Ontological Modeling of Motivational Messages for Physical Activity Coaching. *Health-i-Coach*, within the International Conference on Pervasive Computing Technologies for Healthcare (*PervasiveHealth 2017*), Barcelona, Spain, May 23-26, (2017)
- Ollero, J., Moral-Munoz J.-A., Rojas, I., Banos, O. Mobile Health System for Evaluation of Breast Cancer Patients During Treatment and Recovery Phases. International Work-Conference on Bioinformatics and Biomedical Engineering (*IWBIO 2017*), Granada, Spain, April 26-28, (2017)
- 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. *International Conference on Ubiquitous Computing and Communications (IUCC 2016)*, Granada, Spain, December 14-16, (2016)
- Villalonga, C., Pomares, H., Banos, O. Analysis of the Innovation Outputs in mHealth for Patient Monitoring. *International Conference on Ubiquitous Computing and Communications (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. *International Conference on Ubiquitous Computing and Ambient Intelligence (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., Choo, H., A Novel Dataset for Real-life Evaluation of Facial Expression Recognition Methodologies. *Canadian Conference on Artificial Intelligence (CCAI 2016)*, Victoria, Canada, May 31-June 3, (2016)
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- Villalonga, C., Banos, O., Pomares, H., Rojas, I., Lee, S. High-Level Context Architecture for Real Time Identification of Human Behavior. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBIO 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. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBIO 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. *International Work-Conference on Bioinformatics and Biomedical Engineering (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. *International Work-conference on Ambient Assisted Living an Active Ageing (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. *International Work-conference on Ambient Assisted Living an Active Ageing (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. *International Conference on Ubiquitous Healthcare (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. *World Conference on Complex Systems (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. *International Conference on Advanced Technologies for Communications (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. *International Conference on Advanced Technologies for Communications (ATC 2015)*, Hochiminh, Vietnam, October 14-16, (2015)

Banos, O., Moral-Munoz, J.A., Diaz-Reyes, I., 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. *ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2015)*, Osaka, Japan, September 7-11, (2015)

Banos, O., Bang, J. H., Hur, T. H., Siddiqui, M., Hyunh-The, T., Vui, L. B., Ali Khan, W., Ali, T., Villalonga, C., Lee, S. Mining Human Behavior for Health Promotion. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2015)*, Milano, Italy, August 25-29, (2015)

Banos, O., Hong, C. S., Lee, S. A novel feature selection technique for improving wearable activity recognition. *Korea Computer Conference (KCC 2015)*, Jeju, South Korea, June 24-26, (2015)

Banos, O., Galvez, J. M., Damas, M., Guillen, A., Herrera, L. J., Pomares, H., Rojas, I., Villalonga, C., Hong, C. S., Lee, S. Multiwindow Fusion for Wearable Activity Recognition. *International Work Conference on Neural Networks (IWANN 2015)*, Palma de Mallorca, Spain, June 10-12, (2015)

Villalonga, C., Banos, O., Pomares, H., Rojas, I. Ontological Sensor Selection for Wearable Activity Recognition. *International Work Conference on Neural Networks (IWANN 2015)*, Palma de Mallorca, Spain, June 10-12, (2015)

Guillen, A., Liebana, F., Herrera, L. J., Banos, O., Rojas, I. Performing variable selection by multiobjective criterion: an application to mobile payment. *International Work Conference on Neural Networks (IWANN 2015)*, Palma de Mallorca, Spain, June 10-12, (2015)

Herrera, L. J., Guillen, A., Martinez, R., Garcia, C., Pomares, H., Banos, O., Rojas, I. Modeling the EUR/USD index using LS-SVM and performing variable selection. *International Work Conference on Neural Networks (IWANN 2015)*, Palma de Mallorca, Spain, June 10-12, (2015)

Hussain, J., Ali, M., Bilal, M., Ahmad, H. F., Banos, O., Sungyoung, L. SNS based predictive model for depression assessment. *International Conference on Smart homes and Health Telematics (ICOST 2015)*, Geneva, Switzerland, June 10-12, (2015)

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. *International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth 2015)*, Istanbul, Turkey, May 20-23, (2015)

- Banos, O., Bilal Amin, M., Ali Khan, W., Afzel, M., Ahmad, M., Ali, M., Ali, T., Ali, R., Bilal, M., Han, M., Hussain, J., Hussain, M., Hussain, S., Hur, T. H., Bang, J. H., Huynh-The, T., Idris, M., Kang, D. W., Park, S. B., Siddiqui, M., Vui, L. B., Fahim, M., Khattak, A. M., Kang, B. H., Lee, S. An Innovative Platform for Person-Centric Health and Wellness Support. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2015)*, Granada, Spain, April 15-17, (2015)
- Villalonga, C., Banos, O., Pomares, H., Rojas, I. An Ontology for Dynamic Sensor Selection in Wearable Activity Recognition. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 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. *International Conference on Ubiquitous Information Management and Communication (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. *International Work-conference on Ambient Assisted Living an Active Ageing (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. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 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. *International Work-conference on Ambient Assisted Living an Active Ageing (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. *International Conference on Biomedical Computing (BioMedCom 2013)*, Washington D.C., USA, 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. *International Conference on Biomedical Computing (BioMedCom 2013)*, Washington D.C., USA, September 8-14, (2013)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Activity recognition based on a multi-sensor meta-classifier. In: *International Work-Conference on Neural Networks (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. *International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 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. *International Conference on Ubiquitous Computing (UbiComp 2012)*, Pittsburgh, USA, 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. *Annual International Symposium on Wearable Computers (ISWC 2012)*, Newcastle, United Kingdom, June 18-22 (2012)
- Banos, O., Damas, M., Pomares, H., Rojas, I. Human multisource activity recognition for AAL problems. *International Symposium on Ubiquitous Computing and Ambient Intelligence (UCAI 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. *International Conference on Artificial Intelligence (ICAI 2011)*, Las Vegas, Nevada, USA, 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. *International Joint Conference on Neural Networks (IJCNN 2011)*, San José, California, USA, July 31- August 5, (2011)

Banos, O., Damas, M., Pomares, H., Rojas, I. Automatic Recognition of Daily Living Activities based on a Hierarchical Classifier. *International Work Conference on Neural Networks (IWANN 2011)*, Torremolinos, Spain, June 8-10, (2011)

Banos, O., Pomares, H., Rojas, I. Ambient Living Activity Recognition based on Feature-set Ranking Using Intelligent Systems. *International Joint Conference on Neural Networks (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. *International Conference on Industrial Engineering and Other Applications of Applied Intelligent Systems (IEA/AIE 2010)*, Cordoba, Spain, June 1-4, (2010)

TEACHING

Teaching Accreditation

Institution: TCP Language Centre of the University of Twente

Accreditation: English Proficiency Level C2

Awarded: 2018

Institution: National Agency for Quality Assessment and Accreditation of Spain (ANECA)

Accreditation: Associate Professor

Awarded: 2014

Teaching Experience

Subject: Systems Engineering (2.2 ECTS)

Institution: Faculty of Sciences (University of Granada)

Degree: Industrial Electrical Engineering

Courses: 2017/2018

Role: Instructor

Subject: Industrial Communications and Computing (2.2 ECTS)

Institution: Faculty of Sciences (University of Granada)

Degree: Industrial Electrical Engineering

Courses: 2017/2018

Role: Instructor

Subject: Professional Development (4 + 2 ECTS)

Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)

Degree: Creative Technology

Courses: 2016/2017, 2017/2018

Role: Instructor

Subject: Smart Environments (2.5 ECTS)

Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)

Degree: Creative Technology

Courses: 2017/2018

Role: Instructor

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

Role: Instructor

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

Role: Instructor

Subject: Smart Technology (2.5 ECTS)

Institution: Faculty of Electrical Engineering, Mathematics and Computer Science (University of Twente)

Degree: Creative Technology

Courses: 2016/2017

Role: Guest lecturer

Subject: Parallel Computing (6 ECTS)

Institution: Higher Technical School of Information Technology and Telecommunications Engineering (UGR)

Degree: Computer Engineering

Courses: 2013/2014, 2012/2013

Role: Instructor

(Co)supervised PhD Thesis

Title: TBD

Author: Kostas Konsolakis (University of Twente, Netherlands)

Defense date: TBA

Title: TBD

Author: Salvador Moreno (University of Granada, Spain)

Defense date: TBA

Title: TBD

Author: Carlos Bailon (University of Granada, Spain)

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

Grade: 10.0 (Cum Laude)

(Co)supervised MSc Thesis

Title: Investigating technical aspects, usability aspects, and participatory willingness for an effective mobile data sensing study

Author: Monique Te Rietstap (University of Twente, Netherlands)

Defense date: January 2018

Grade: 8.0 (B)

Title: Development of an intelligent system to predict lower limb biomechanical injuries

Author: Carlos Bailon (University of Granada, Spain)

Defense date: July 2017

Grade: 10.0 (A)

Title: Algorithm for the automatic analysis of the QT complex based on 4x3-lead ECGs

Author: Judith Elshof (University of Twente, Netherlands)

Defense date: November 2016

Grade: 8.0 (B)

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

Grade: 10.0 (A)

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

Grade: 9.5 (A)

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

Grade: 10.0 (A)

Title: An innovative clinical support system for trunk endurance assessment

Author: Ignacio Díaz (University of Granada, Spain)

Defense date: June 2015

Grade: 10.0 (A+)

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

Grade: 9.5 (A)

Title: mHealthDroid: A toolkit for rapid development of mHealth applications

Author: Alejandro Sáez (University of Granada, Spain)

Defense date: December 2013

Grade: 10.0 (A)

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

Grade: 10.0 (A)

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

Grade: 10.0 (A)

Title: Android APP for biomedical monitoring
Author: Hendrik Mende (University of Applied Sciences Münster, Germany) *Defense date:* October 2012
Grade: 10.0 (A)

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
Grade: 10.0 (A)

Title: Signal preprocessing effects on daily living activity recognition systems
Author: Juan Manuel Gálvez (University of Granada, Spain) *Defense date:* September 2012
Grade: 9.0 (A)

Title: Sensmotion: APP for daily living activities monitoring
Author: Raúl Nadal (University of Granada, Spain) *Defense date:* September 2012
Grade: 9.5 (A)

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
Grade: 9.5 (A)

(Co)supervised BSc Thesis

Title: SmartMoments: Using Smart Devices to Tag and Cluster "Personal Moments" in Daily Life
Author: Sun Ok (University of Twente, Netherlands) *Defense date:* July 2018
Grade: 9.0 (A)

Title: Using mobile sensing to detect indicators of alcohol intoxication
Author: Boris Das (University of Twente, Netherlands) *Defense date:* July 2018
Grade: 7.0 (B)

Title: Improved reminder system to stimulate medication adherence of elderly at home as well as outdoors with the use of the Medido medicine dispenser
Author: Laura van der Neut (University of Twente, Netherlands) *Defense date:* July 2018
Grade: 9.0 (A)

Title: CogniDecline: tracking mobile interaction for cognitive assessment
Author: Jan Wohlfahrt-Laymann (University of Twente, Netherlands) *Defense date:* July 2017
Grade: 9.0 (A)

Title: Using technology to recognise emotions in autistic people
Author: Tamara Notenboom (University of Twente, Netherlands) *Defense date:* July 2017
Grade: 8.0 (B)

Title: Safe cycling for elderly: see
Author: Lukas Bos (University of Twente, Netherlands) *Defense date:* July 2017
Grade: 8.0 (B)

Title: Traceability of medical equipment through hospitals and retirement homes
Author: Dennis Rieffe (University of Twente, Netherlands) *Defense date:* February 2017
Grade: 8.0 (B)

Title: Incorporating a Crutch into Gait Rehabilitation Floor Data
Author: Ruben van der Berg (University of Twente, Netherlands) *Defense date:* July 2016
Grade: 7.0 (B)

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
Grade: 10.0 (A)

Title: Automatic estimation of knee alignment based on depth video
Author: Carlos Bailon (University of Granada, Spain) *Defense date:* July 2016
Grade: 10.0 (A+)

Participation in Academia Innovation Projects

Title: UGRASP - UGR AeroSpace Program

Funded by: University of Granada

Reference ID: 13-29

Project duration: from: 2013 to: 2015

Title: New learning methods applied to industrial robotics

Funded by: University of Granada

Reference ID: 11-280

Project duration: from: 2011 to: 2013

Academic Publications

----- Journals -----

Moreno, S., Damas, M., Pomares, H., Banos, O. Theremin DIY con Arduino UNO. *Enseñanza y Aprendizaje de Ingeniería de Computadores*, vol.1, no. 6, pp. 119-125 (2016)

Damas, M., Banos, O., Olivares G., Mula F. Complementos para Informática Industrial del perfil de Ingeniería de Computadores del Grado de Informática de la UGR: Controladores Lógicos Programables. *Enseñanza y Aprendizaje de Ingeniería de Computadores*, vol.1, no. 3, pp. 107-119 (2013)

Damas, M., Lopera, J., Banos, O. Una iniciativa para la coordinación y difusión de la docencia del perfil de Ingeniería de Computadores del Grado de Informática de la UGR. *Enseñanza y Aprendizaje de Ingeniería de Computadores*, vol.1, no. 2, pp. 73-80 (2012)

----- Book chapters -----

Damas, M., Olivares G., Gómez, F. Prados, A. M., Olivares, A., Banos, O. Laboratorio Virtual para el Ciclo Completo de Desarrollo de Sistemas de Control Industriales (PID 08-80). *Innovación Docente y Buenas Prácticas en la Universidad de Granada* (2012) ISBN 978-84-338-5400-1

Participation in Teaching Development Courses

Title: Technical Writing & Editing

Organiser: petecom (University of Twente)

Duration: 20 hours

Date(s): 01/09/2017 - 30/09/2017

Title: How to activate students

Organiser: Centre for Educational Support (University of Twente)

Duration: 4 hours

Date(s): 12/06/2017

Title: Storytelling

Organiser: Centre for Educational Support (University of Twente)

Duration: 6 hours

Date(s): 15/05/2017

Title: Supervising Students

Organiser: Centre for Educational Support (University of Twente)

Duration: 10 hours

Date(s): 12/04/2017-19/04/2017

Title: Practical Teaching Skills

Organiser: Centre for Educational Support (University of Twente)

Duration: 20 hours

Date(s): 16/02/2017-02/03/2017

Title: Testing and Assessment

Organiser: Centre for Educational Support (University of Twente)

Duration: 16 hours

Date(s): 10/11/2016-24/11/2016

Title: English for Lectures

Organiser: TCP Language Centre (University of Twente)

Duration: 36 hours

Date(s): 21/09/2016-02/11/2016

Title: Designing a lesson and a course

Organiser: Centre for Educational Support (University of Twente)

Duration: 20 hours

Date(s): 11/05/2016-25/05/2016

Title: Knowledge Management in Academia

Organiser: Quality Assurance Vice-Rector's Office (University of Granada)Date(s): 10/03/2014-30/04/2014

Duration: 30 hours

Title: Statistical methods for experimental computation

Organiser: Quality Assurance Vice-Rector's Office (University of Granada)Date(s): 10/03/2014-30/04/2014

Duration: 25 hours

Title: Migration of Academic Materials to Open Source

Organiser: Quality Assurance Vice-Rector's Office (University of Granada)Date(s): 30/09/2013-30/09/2014

Duration: 175 hours

Title: Digital image processing using open software and online tools

Organiser: Quality Assurance Vice-Rector's Office (University of Granada)Date(s): 16/09/2013-20/09/2013

Duration: 24 hours

Title: Introduction to iOS programming

Organiser: Vice-Rector's Office for Quality Assurance (University of Granada)Date(s): 25/06/2013-04/07/2013

Duration: 30 hours

Title: Introduction to Android programming

Duration: 30 hours

SERVICE

Organisational Positions

<i>Institution:</i> IEEE Engineering in Medicine and Biology Society (EMBS)	
<i>Position:</i> Member of (#93660605)	<i>Duration:</i> 2015/today
<i>Institution:</i> International Neural Network Society (INNS)	
<i>Position:</i> Member of (#ID4521)	<i>Duration:</i> 2011/today
<i>Institution:</i> CITIC-UGR Executive Board	
<i>Position:</i> Member of	<i>Duration:</i> 2011/2014
<i>Institution:</i> CITIC-UGR Scientific Committee	
<i>Position:</i> Member of	<i>Duration:</i> 2011/2014
<i>Institution:</i> Department of Computer Architecture and Computer Technology Board	
<i>Position:</i> Member of	<i>Duration:</i> 2010/2014

Editorship International Journals

Associate Editor of Human-centric Computing and Information Sciences (Springer)

Guest Editor of the Special Issue on E-Coaching for Health of the IEEE Computer Magazine (IEEE)

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 Ubiquitous Computing for Health Applications of the Journal of Ambient Intelligence and Humanized Computing (Springer)

Organisation International Conferences/Workshops

PC Co-Chair at the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI2018)

Posters and Demos Co-Chair at the EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth2018)

Co-organizer of the Workshop on Intelligent Technologies for Coaching in Health (Health-i-Coach2017, within ACM PervasiveHealth2017)

Organizing Committee member (Health Track Co-Chair) at the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI2016, UCAmI2017)

Co-organizer of the Special Session on Assistive Rehabilitation Technology (within IWANN2017)

Organizing Committee member (Publicity Co-Chair) at the EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth2016)

Co-organizer of the Workshop on Smart Ubiquitous Technologies for Human Behaviour Coaching (SUT4Coaching2016, within IEEE IUCC2016)

Co-organizer of the Workshop 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 International Conferences/Workshops

Steering Committee member at the International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO2017, IWBBIO2018)

Program Committee member at the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI2016, UCAmI2017, UCAmI2018)

Program Committee member at the EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth2016, PervasiveHealth2017, PervasiveHealth2018)

Program Committee member at the International Work-Conference on Artificial Neural Networks (IWANN2017)
Program Committee member at the International Work-Conference on Time Series (ITISE2017, ITISE2018)
Program Committee member at the Workshop on Internet of People and Things (IPAT2017, within IEEE SERA 2017)

Program Committee member at the International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO2013, IWBBIO2014, IWBBIO2015, IWBBIO2016)

Program Committee member at the Special Session Track on Smart Things for Active and Assisted Living (ST4AAL) of the EAI International Conference on Smart Objects and Technologies for Social Good (GOODTECHS2016)

Program Committee member at the EAI International Conference on Body Area Networks (BodyNets 2016)

Program Committee member at the IEEE International Conference on Ubiquitous Computing and Communications (IUCC2016)

Program Committee member at the International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM2016)

Reviewers Committee member at the ACM Conference on Human Factors in Computing Systems (CHI2016)

Reviewers Committee member at the ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp2015/UbiComp2016)

Reviewers Committee member at the International Symposium on Wearable Computers (ISWC2015/ISWC2016)

Program Committee member at the International Conference on Software, Knowledge, Intelligent Management and Applications (SKIMA2015)

Session Chair International Conferences/Workshops

Session Chair at the Workshop on emotion awareness for pervasive computing with mobile and wearable devices (EmotionAWARE2018, within PerCom2018)

Session Chair at the EAI International Conference on Pervasive Computing Technologies for Healthcare (PervasiveHealth2017)

Session Chair at the International Conference on Ubiquitous Computing and Ambient Intelligence (UCAMI2016, UCAMI2017)

Session Chair at the International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO2013, IWBBIO2014, IWBBIO2015, IWBBIO2016)

Session Chair at MIRA Symposium 2016 (MIRA2016)

Reviewer International Journals

Reviewer of the international journal "IEEE Transactions on Systems, Man and Cybernetics: Systems" (IEEE)

Reviewer of the international journal "Biomedical Engineering Online" (BMC)

Reviewer of the international journal "Journal of Biomedical Informatics" (Elsevier)

Reviewer of the international journal "Journal of Medical and Biological Engineering" (Springer)

Reviewer of the international journal "IEEE Transactions on Industrial Informatics" (IEEE)

Reviewer of the international journal "Electronics" (MDPI)

Reviewer of the international journal "Sensors" (MDPI)

Reviewer of the international journal "Journal of System Architecture" (Elsevier)

Reviewer of the international journal "Medical Engineering and Physics" (Elsevier)

Reviewer of the international journal "Journal of Network and Computer Applications" (Elsevier)

Reviewer of the international journal "Journal of Ambient Intelligence and Smart Environment" (IOPress)

Reviewer of the international journal "International Journal of Soft Computing and Applications" (Aloy Publishers)

Reviewer of the international journal "Expert Systems with Applications" (Elsevier)
Reviewer of the international journal "The Scientific World Journal" (Hindawi)
Reviewer of the international journal "Computer Vision and Image Understanding" (Elsevier)
Reviewer of the international journal "Applied Intelligence" (Springer)
Reviewer of the international journal "Journal of Ambient Intelligence and Humanized Computing" (Springer)
Reviewer of the international journal "Pervasive and Mobile Computing" (Elsevier)
Reviewer of the international journal "Computers and Electrical Engineering" (Elsevier)
Reviewer of the international journal "IEEE Transactions on Human-Machine Systems" (IEEE)

OTHER MERITS

Invited Talks

Venue: Wearables in Practice: Physiology and Emotions Symposium (Enschede, Netherlands)
Talk: What your smartphone tells about your behaviour: challenges and opportunities
Sponsored by: 4TU (TU Delft, Tue, University of Twente, Wageningen University) *Date:* 22/09/2017
Venue: Connected Health Summer School (Tuscany, Italy)
Talk: Advanced Processing of Sensor Data for Human Behaviour Modelling
Sponsored by: REMIND, H2020 Marie Curie Training Network *Date:* 28/06/2017
Venue: International Workshop on Big Data & Knowledge for Healthcare (Suwon, Korea)
Talk: Mining Minds: an Innovative Framework for Personalized Health and Wellness Support
Sponsored by: Brain Korea 21 Plus, Korean National Research Foundation *Date:* 17/10/2015

PhD Thesis Committees

Title: Sistemas de laboratorios remotos sobre instrumentación de tiempo real: aplicación a laboratorios de medida de tensión interfacial
Student: Jesus Luis Muros Cobos (University of Granada, Spain) *Defense date:* September 28, 2017
Title: DARP: a New Routing Algorithm for Large Communication Infrastructures
Student: Francisco José Estévez Ortiz (University of Granada, Spain) *Defense date:* June 20, 2016

PhD Thesis External Review Committees

Title: Extending the Concepts of Type-2 Fuzzy Sets and Systems
Student: Gonzalo Ruiz Garcia (University of Granada, Spain) *Review date:* May 11, 2017
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

Reviewer International Projects

Proposal type: PhD fellowships (<http://www.fwo.be/en/fellowships-funding/phd-fellowships/>)
Institution: Research Foundation Flanders (FWO) *Review date:* June 28, 2018

Awards

Distinction: Outstanding PhD Award
Awarded by: University of Granada *Date:* December 2017
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 ("as supervisor of the mHealthDroid project")

Awarded by: University of Granada

Date: June 2014

Distinction: Best Paper Award of the 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