| CV date | 27/04/2021 |
|---|---|

## Part A. PERSONAL INFORMATION

| First name and Family name | Diego Castillo-Barnes | |
|---|---|---|
| Researcher numbers | Researcher ID | C-6239-2017 |
| | ORCID code | 0000-0003-1635-5685 |

### A.1. Current position

| Institution | University of Granada | | |
|---|---|---|---|
| Department | Department of Signal Theory, Networking and Communications | | |
| Address and Country | Periodista Daniel Saucedo Aranda, 18071, Granada (Spain) | | |
| Current position | PhD Student | From | 10/2016 |
| UNESCO Code | 332500 - Telecommunications technology | | |
| Keywords | Neuroimaging, Machine Learning, Signal Processing | | |

### A.2. Education

| PhD | University | Year |
|---|---|---|
| PhD Student (Caracterización de imágenes cerebrales mediante distribuciones alfa-estables e isosuperficies. Combinación de marcadores heterogéneos) | University of Granada (Spain) | 2016 - Current |

### A.3. JCR articles, h Index, Cites

- JCR articles: 15 (13 in Q1 quartile)
- International conferences: 23
- Cites (last 5 years): 199 (Last revised on 27 April 2021)
- h Index: 7

## Part B. CV SUMMARY

Telecommunications Engineer (5-years, which is equivalent to doing a graduate in Telecommunications Engineering plus a 2-year specialization) at University of Seville (Spain). I am specialized in a mix of Radiocommunications and Telematics. I have several professional certificates including the following in chronological order: [2012-2013] Network and Systems Security Specialist (450 hours), Management of Services in the Information System (90 hours), Digital Marketing (Google Inc. & IAB, 40 hours), SipWise NGCP - SIP Provider CE (special guest invited by A7, 40 hours).

I have got some experience in the private sector, first as an intern at ADC Tech Soluciones S.L.U. (Seville) in 2013. Shortly after, I founded the company INTESOFT (Instituto Tecnológico de Software Libre) also in Seville (2013-2015) where I collaborated as a consultant for IP telephony solutions for companies as well as in the installation of cloud services and process automation. At the end of 2013 I

also started working for QuaiP LTD (2013-2014) as a service manager, cloud services deployment, virtualization and VoIP specialist. Later, I was hired at U-Telecom (Granada) as responsible for the technical support department where I performed deployment, supervision and maintenance tasks for the telephone operator. This work also included process monitoring tasks, data network engineering and interconnection with other national operators.

Since I have started my PhD Degree studies at the University of Granada in 2016 (with a scholarship from the Spanish Ministry of Economy, Trade and Industry), I have been working as PhD student in the SiPBA group (Signal Processing and Biomedical Applications) under EU project with reference TEC2015-64718-R. This project is keen on the analysis of neurodegenerative diseases using Machine Learning techniques as well as the development of tools to help medical diagnosis. During this time I have made two research stays at University of Cambridge (UK) and Ludwig-Maximilians-University of Munich (Germany).

My teaching activity includes 180 hours taught in 4 academic years, corresponding to BSc. degrees in Telecommunications Engineering.

**Main contributions**

1. Martinez-Murcia F.J.; Gorriz, J.M.; Ramirez, J.; Illan, I.A.; Segovia, F.; Castillo-Barnes, D.; Salas-Gonzalez, D. «Functional brain imaging synthesis based on image decomposition and kernel modeling: Application to neurodegenerative diseases». Frontiers in Neuroinformatics, 11 (14th, November, 2017): https://doi.org/10.3389/fninf.2017.00065
2. Castillo-Barnes, D.; Peis, I.; Martinez-Murcia, F.J.; Segovia, F.; Illan, I.A.; Gorriz, J.M.; Ramirez, J.; Salas-Gonzalez, D. «A Heavy Tailed Expectation Maximization Hidden Markov Random Field Model with Applications to Segmentation of MRI». Frontiers in Neuroinformatics, 11 (21th, November, 2017): https://doi.org/10.3389/fninf.2017.00066
3. Gorriz, J.M.; Ramirez, J.; Suckling, J.; Martinez-Murcia, F.J.; Illan, I.A.; Segovia, F.; Ortiz, A.; Salas-Gonzalez, D.; Castillo-Barnes, D.; Puntonet, C. «A semi-supervised learning approach for model selection based on class-hypothesis testing». Expert Systems with Applications, 90, 40-49 (30th, December, 2017): https://doi.org/10.1016/j.eswa.2017.08.006
4. Ramirez, J.; Gorriz, J.M.; Ortiz, A.; Martinez-Murcia F.J.; Segovia F.; Salas-Gonzalez, D.; Castillo-Barnes, D.; Illan, I.A.; Puntonet, C.; for the Alzheimer's Disease Neuroimaging Initiative. «Ensemble of random forests One *vs*. Rest classifiers for MCI and AD prediction using ANOVA cortical and subcortical feature selection and partial least squares». Journal of Neuroscience Methods, 302, 47-57 (15th, May, 2018): https://doi.org/10.1016/j.jneumeth.2017.12.005
5. Castillo-Barnes, D.; Ramirez, J.; Segovia, F.; Martinez-Murcia, F.J.; Salas-Gonzalez, D.; Gorriz, J.M. «Robust Ensemble Classification Methodology for I123-Ioflupane SPECT Images and Multiple Heterogeneous Biomarkers in the Diagnosis of Parkinson's Disease». Frontiers in Neuroinformatics, 12 (14th, August, 2018): https://doi.org/10.3389/fninf.2018.00053
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9. Rodriguez-Rivero, J.; Ramirez, J.; Martinez-Murcia, F.J.; Segovia, F.; Ortiz, A.; Salas-Gonzalez, D.; Castillo-Barnes, D.; Illan, I.A.; Puntonet, C.; Jimenez-Mesa, C.; Leiva, F.J.; Carillo, S.; Suckling, J.; Gorriz, J.M. «Granger causality-based information fusion applied to electrical measurements from power transformers». Information Fusion, 59, 59-70 (9th, December, 2019): https://doi.org/10.1016/j.inffus.2019.12.005
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