

**Part A. PERSONAL INFORMATION**

First Name	Pino		
Family Name	Caballero Gil		
Sex	Female	Date of Birth	29/11/1968
ID number Social Security, Passport	45534310Z		
URL Web	https://pcaballe.webs.ull.es/PCG.htm		
Email Address	pcaballe@ull.edu.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-0859-5876		

A.1. Current position

Job Title	Catedrática de Universidad		
Starting date	2015		
Institution	Universidad de La Laguna		
Department / Centre	Ingeniería Informática y de Sistemas / Escuela Superior de Ingeniería y Tecnología		
Country	Spain	Phone Number	(+34) 922318176
Keywords	Quantum computation; Mobile phone; Radio telecommunications; Coding; Cryptography; Disclosure of information; Monitoring and security		

A.3. Education

Degree/Master/PhD	University / Country	Year
Doctorado en Estadística, Investigación Operativa y Computación	Universidad de La Laguna	1995
Licenciado en Matemáticas Especialidad Estadística e Investigación Operativa	Universidad de La Laguna	1990

Part B. CV SUMMARY

Pino Caballero Gil was born in Gran Canaria in 1968, obtaining a Bachelor's Degree in Mathematics in 1990 and a PhD from the University of La Laguna (ULL) in 1995. She obtained the positions of University Lecturer in 1997 and Full Professor of Computer Science and Artificial Intelligence in 2015. At the ULL, she was Director of Vice-Rector's Office between 2001 and 2003, Dean of the Faculty between 2006 and 2010, and member of the Governing Council between 2017 and 2020. She is currently participating in the European projects: Celtic-Plus EUREKA IMMINENCE led by INDRA, and COST Action CA19135 CERCIRAS led from Serbia. She has been involved in 5 ERASMUS networks, the 2 European COST actions: AAPELE and CryptoAction, in the 3 European projects: Celtic-Plus EUREKA UNICRINF, H2020 CSA 824550 FORWARD and FP7-REGIONS-2011-1 InTraRegio. She has been the promoter of 8 European project applications. She is a regular evaluator of the Horizon Europe and H2020 calls, having participated in the CYBER, FCT, CS, INFRAIA, WIDESPREAD, IPr, SU-ICT, LEIT and MSCA-ITN calls. She is also a regular evaluator of national projects and member of the selection commission of the INF Program, as well as a current member of the ANECA Committee for the evaluation of six-year research periods. She is the founder and leader of the CryptULL research group in Cryptology of the ULL (<https://pcaballe.webs.ull.es>), currently with 12 members. CryptULL was recognized as a consolidated group by the Government of the Canary Islands since 1998, and since then 30 researchers have passed through it, some of whom now work in companies known as IBM Research. She has participated in 61 research projects, being Main Researcher of 31 (2 in progress), of which have been: 11 from the National Plan, 12 regional and 8 from the ULL. She is a member of the National Cybersecurity Research Network of Excellence, the Cybersecurity Forum, the Network for Research in Cybersecurity and Privacy, and the Thematic Network of Excellence MATSI-Mathematics in the Information Society. She

has supervised 7 doctoral theses, 5 of them with a European or international doctorate mention in quality mention programs and 3 with extraordinary awards, and she is currently advising 6 more. She has advised more than 70 final degree projects. She has signed more than 15 research collaboration agreements and contracts with public institutions and different regional, national and international private companies, such as the National Intelligence Center, Nokia, Binter, Alcatel, etc. She is the inventor of two patents, one of them with an exploitation license. She is the author of 97 papers in international journals (65 indexed in SCI JCR, of which 32 are in Q1 and Q2) and 276 papers in conferences (84 indexed in GII-GRIN-SCIE), with h-index 20. She is the author of 5 books and 8 chapters, and the editor of 4 books. She has given 23 invited plenary talks at conferences, and has carried out several research stays, one of them lasting one month in 2018 at IRIT (France) as Visiting Professor. She is a member of the University Institutes of Regional Development, and of Women's Studies (IUEM). She is the director of the University Master's Degree in Cybersecurity and Data Intelligence, and of the Institutional Chair of Cybersecurity at the ULL. She has served on numerous indexed conference program committees such as ACNS, NSS, IWOCA, CISIS, and IEEE TrustCom. She has been the General Chair of the Financial Cryptography and Data Security and other well-known conferences. She is a regular referee for 30 ISI-JCR magazines, a member of the Editorial Board of Wireless Networks and Security and Communication Networks journals. As for the national six-year terms, she has been granted 4 for research and 1 for transfer. She has received several awards, such as: "Woman and Innovation" from the More Woman Magazine, "Recognition for Researchers of the ULL" from the IUEM, "Business Project" from the Fyde-CajaCanarias Foundation, and "Canary Islands Day for Young Researchers" from the Government of Canary Islands. She has always carried out many scientific dissemination activities, for example interviews in the media and talks in schools.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

- 1 Nayra Rodríguez-Pérez, Pino Caballero-Gil, Alexandra Rivero-García, Josué Toledo-Castro.2020. A secure mHealth application for attention deficit and hyperactivity disorder Expert Systems. Wiley. Volume 37(1). Q2. ISSN 0266-4720. scholar (5) <https://doi.org/10.1111/exsy.12431>
- 2 Moisés Lodeiro-Santiago, Pino Caballero-Gil, Ricardo Aguasca-Colomo, Cándido Caballero-Gil. 2019. Secure UAV-Based System to Detect Small Boats Using Neural Networks Complexity. Q2. Wiley. 7206096. ISSN 1076-2787. scholar (17) <https://doi.org/10.1155/2019/7206096>
- 3 J. Molina-Gil, P. Caballero-Gil, C. Caballero-Gil. 2014. Aggregation and probabilistic verification for data authentication in VANETs Information Sciences. Elsevier Science. 262, 172-189. Q1. ISSN 0020-0255. scholar (27) <https://doi.org/10.1016/j.ins.2013.07.036>
- 4 Néstor García-Moreno, Pino Caballero-Gil, Cándido Caballero-Gil and Jezabel Molina-Gil. 2022. Ethereum-Based Decentralized Vehicle Rental System Logic Journal of the IGPL. Vol. 30, Issue 6, pp. 926-941. Q1. Oxford Univ Press. ISSN 1367-0751. <https://doi.org/10.1093/jigpal/jzac003>
- 5 N. Rodríguez-Pérez, J. Toledo-Castro, P. Caballero-Gil, I. Santos-González, C. Hernandez-Goya. 2022. Secure Ambient Intelligence Prototype for Airports.Journal of Ambient Intelligence and Humanized Computing. Springer. Q2. ISSN 1868-5137. scholar (2) <https://doi.org/10.1007/s12652-020-01683-y>
- 6 Alexandra Rivero-García, Iván Santos-González, Candelaria Hernández-Goya, Pino Caballero-Gil. 2021. Using blockchain in the follow-up of emergencies situations related to events. Software: Practice and Experience. Wiley. Volume 51(10). Q2, pp.2000-2014. ISSN 0038-0644. scholar (2) <https://doi.org/10.1002/spe.2779>

- 7 Moises Lodeiro-Santiago, Iván Santos-González, Pino Caballero-Gil, Cándido Caballero-Gil. 2020. Secure System based on UAV and BLE for improving SAR Missions Journal of Ambient Intelligence and Humanized Computing. Springer Heidelberg. 11. Q1, pp.3109-3120. ISSN 1868-5145. scholar.google.es (8) <https://doi.org/10.1007/s12652-017-0603-4>
- 8 Iván Santos-González, Pino Caballero-Gil, Alexandra Rivero-García, Cándido Caballero-Gil. 2019. Priority and collision avoidance system for traffic lights.Ad Hoc Networks. Elsevier. 94. Q1. ISSN 1570-8705. scholar (7) <https://doi.org/10.1016/j.adhoc.2019.101931>
- 9 J. Toledo-Castro, P. Caballero-Gil, Nayra Rodríguez-Pérez, I. Santos-González, C. Hernández-Goya. 2018. Forest Fire Prevention, Detection and Fighting Based on Fuzzy Logic and Wireless Sensor Networks Complexity. Q2. Wiley. 1639715. ISSN 1076-2787. scholar (31) <https://doi.org/10.1155/2018/1639715>
- 10 M. Burmester, J. Munilla, A. Ortiz, P. Caballero-Gil. 2017. An RFID-based Smart Structure for the Supply Chain: resilient scanning proofs and ownership transfer with positive secrecy capacity channels Sensors. 2017. Q2. ISSN 1424-8220. scholar (24) <https://doi.org/10.3390/s17071562>
- 11 F. Martín-Fernández, P. Caballero-Gil, C. Caballero-Gil. 2016. An Experimental Hybrid Wireless Platform for Vehicular Networks. Seventeenth International WOWMOM Symposium World Of Wireless, Mobile And Multimedia Networks. CORE A.scholar (3)
- 12 A. Fúster-Sabater, P. Caballero-Gil. 2011. Chaotic Modelling of the Generalized Self-Shrinking Generator Applied Soft Computing. Elsevier. 11(2), 1876-1880. Q1. scholar (24) <https://doi.org/10.1016/j.asoc.2010.06.002>
- 13 A. Fúster-Sabater, M.E. Pazo-Robles, P. Caballero-Gil. 2010. A Simple Linearization of the Self-Shrinking Generator by means of Cellular Automata Neural Networks. Elsevier. 23(3) 461-464. Q2. scholar (24) <https://doi.org/10.1016/j.neunet.2009.12.008>
- 14 Pino Caballero Gil. 1996. Libro: Introducción a la Criptografía.Ra-Ma. ISBN 84-7897-210-2. scholar (63)
- 15 A. Fúster Sabater, P. Caballero Gil. 1995. On the Linear Complexity of Nonlinearly Filtered PN-Sequences.ASIACRYPT. CORE A. GGS Class 1 Rating A+. Lecture Notes in Computer Science. Springer-Verlag. 917, pp.80-91. scholar (32) <https://doi.org/10.1007/BFb000426>

C.3. Research projects and contracts

- 1 **Project.** COST Action CA19135: CERCIRAS – Running Connecting Education and Research Communities for an Innovative Resource Aware Society. Convocatoria: Acciones COST (European Cooperation in Science and Technology). Gordana Rakic (University of Novi Sad, Serbia). (Comisión Europea). 29/09/2020-28/09/2024. Management Committee Substitute: Pino Caballero Gil
- 2 **Project.** COEDU-IN - Alfabetización digital y STEAM en edades tempranas: propuesta co-educativa inclusiva. Ayudas a Proyectos de Investigación 2020. Pino Teresa Caballero Gil. (Fundación CajaCanarias). 01/03/2021-31/12/2023. 57.000 €.
- 3 **Project.** IDI-20210977, IMMINENCE - Gestión Inteligente de la nueva generación de Redes y Servicios de Comunicaciones Móviles. IP en Indra: Antonio Cuadra Sanchez. IP en ULL: Pino Caballero-Gil.(EUREKA. Proyecto Celtic-Plus.). 01/06/2021-31/05/2023. 100.000 €.
- 4 **Project.** RTI2018-097263-B-I00, ACTIS – Avances en Ciberseguridad aplicados al Transporte Inteligente: Soluciones tecnológicas eficientes y resilientes. Ministerio de Ciencia, Innovación y Universidades. IP: Pino Caballero Gil. (Convocatoria: Retos-Investigación). 01/01/2019-30/09/2022. 161.656 €.
- 5 **Project.** CSA 824550: FORWARD - Fostering Research Excellence in EU Outermost Regions. SwafS-22-2018. Antonio López Gulias (ACIISI). (Comisión Europea. H2020). 01/01/2019-31/12/2021. 4.277.423,75 €. Information and Communications Technology TWG-4: Pino Caballero Gil. Subvención a la ULL: 135.562,50 €
- 6 **Project.** C2017/3-9, UNICRINF - Universal Critical Infrastructures.. IP en Nokia: Mª Luisa Arranz Chacón. IP en ULL: Pino Caballero-Gil. (EUREKA. Proyecto Celtic-Plus). 01/10/2018-30/09/2020. 70.000 €.

- 7 Project.** IDI-20160465, MOTAM - Medidas para Optimizar el Transporte por Carretera Mediante Aplicaciones Móviles.. IP en Nokia: M^a Luisa Arranz Chacón. IP en ULL: Pino Caballero Gil. (Centro para el Desarrollo Tecnológico Industrial.). 01/07/2016-03/05/2019. 154.000 €.
- 8 Project.** TEC2014-54110-R, CASUS – Cooperación móvil segura Aplicada a Situaciones de emergencia e infraestructuras críticas de transporte.. Ministerio de Economía y Competitividad. IP: Pino Caballero Gil. (Convocatoria: Retos-Investigación). 01/01/2015-31/12/2018. 110.100 €.
- 9 Project.** RTC-2014-1648-8, ATLAS – Aplicaciones de la Tecnología LTE para Aumentar la Seguridad.. Ministerio de Economía y Competitividad. IP en Nokia: Javier Sánchez Sánchez. IP en ULL: Pino Caballero Gil. (Convocatoria: Retos-Colaboración). 01/10/2014-30/06/2018. 259.377 €.
- 10 Project.** COST IC1306, Crypto Action - Cryptography for Secure Digital Interaction.. Comisión Europea. IP: Claudio Orlandi. Management Committee: Pino Caballero Gil. (Comisión Europea). 07/04/2014-06/04/2018. 520.000 €.
- 11 Project.** COST IC1303, AAPELE - Algorithms, Architectures and Platforms for Enhanced Living Environments.. Comisión Europea. IP: Nuno García. Management Committee: Pino Caballero Gil. (Comisión Europea). 13/11/2013-12/11/2017. 520.000 €.
- 12 Project.** 539461-LLP-1-2013-1-BG-ERASMUS-ENW: FETCH - Future Education and Training in Computing: How to support learning at anytime anywhere. IP: Angel Kanchev (University of Rousse, Bulgaria). IP en ULL: P. Caballero-Gil. (European Commission Directorate General Education and Culture.). 01/10/2013-30/09/2016. 13.200 €.
- 13 Project.** TIN2011-25452, TUERI – Tecnologías seguras y Eficientes para las Redes inalámbricas en la Internet de las cosas con aplicaciones en transporte y logística.. Ministerio de Ciencia e Innovación. IP: Pino Caballero Gil. (Ministerio de Ciencia e Innovación). 01/01/2012-31/07/2015. 78.771 €.
- 14 Project.** TIN2008-02236/TSI, MUOVE: Mejora de la seguridad vial mediante la planificación, diseño e integración de servicios criptográficos en Vansets.. Ministerio de Ciencia e Innovación. IP: Pino Caballero Gil. (Ministerio de Ciencia e Innovación). 01/01/2009-31/03/2012. 115.434 €.
- 15 Contract.** Convenio de Colaboración entre el Centro Nacional de Inteligencia y la Universidad de La Laguna para la Realización de Actividades de Investigación en Computación Cuántica y Criptografía Post-Cuántica Responsables científico-técnicos: Pino Caballero Gil (ULL) y un responsable del Departamento de Crip. 26/10/2021-29/12/2022. 50.000 €.
- 16 Contract.** Convenio de Colaboración entre el Grupo CryptULL de Investigación en Criptología de la Universidad de La Laguna y la Asociación Canaria de Unidades de Drones y Robótica Policiales para la Realización de Tareas de Apoyo de Actividades de Investigación Responsables científico-técnicos: Pino Caballero Gil (ULL), José Andrés Correa Cordobés (ACUDROPOL). 22/07/2021-22/07/2022.
- 17 Contract.** Acuerdo de Subcontratación entre Nokia España y Universidad de La Laguna para proyecto C2017/3-9: UNICRINF - Universal Critical Infrastructures. Pino Caballero Gil. From 01/03/2019. 70.000 €.
- 18 Contract.** Convenio de Colaboración entre Binter Sistemas SL y la Universidad de La Laguna para el patrocinio de la Cátedra Institucional en Ciberseguridad Binter-Universidad de La Laguna. Pino Caballero Gil (ULL), Héctor Reboso Morales (BS). From 28/02/2019. 30.000 €.

C.4. Activities of technology / knowledge transfer and results exploitation

- 1 Patent of invention.** Cándido Caballero-Gil, Pino Caballero-Gil, Jezabel Molina-Gil. P 201600224. Sistema y método para la automatización y uso seguro de aplicaciones móviles en vehículos PCT/ES2016/070215 Spain. 18/03/2016. Universidad de La Laguna.
- 2 Patent of invention.** Pino Caballero-Gil, Cándido Caballero-Gil, Jezabel Molina-Gil. ES 2372841 B2. Patente licenciada: Sistema de comunicaciones seguras en una red ad-hoc vehicular espontánea y autogestionada PCTES2011000220 Spain. 04/04/2013. Universidad de La Laguna.