

Curriculum Vitae

Personal information Alba Perez-Vela

Work experience

Dec 2019 -currently: Biotechnology Project Manager CIBER-BBN, ISCIII (Instituto de Salud Carlos III, that depends on the Ministry of Health and Universities). Project Manager at CIBER (Centro de Investigación Biomédica en Red) in Bioengineering, Biomaterials and Nanomedicine area. Supporting the management team, researchers, and scientific direction. Coordinating and preparing international and national proposals and budgets. Successfully co-writing ARISTOS Project (MSCA Cofund), deploying and implementing the program (3.8M€). Reporting and promoting internal scientific activity at CIBER-BBN. Organizing scientific events.

Nov 2018 - Nov 2019 Postdoc Researcher Universitat Politècnica de Catalunya, UPC Leading tasks in national and European H2020 Research Projects related to data analytics and machine learning. Preparation of technical reports and scientific dissemination. Trips to project meetings. Very close technical collaborations with Telefónica-Spain, British Tel-U.K. and CNIT-Italy.

Dec 2015 -Nov 2018: FPI Doctoral Scholarship Universitat Politècnica de Catalunya, UPC. Extraordinary Doctorate Award. International doctorate mention. Titled: "Bringing Cognition to Multilayer Transport Networks". Focused on improving the network operation by introducing autonomic networking capabilities.

Mar 2017 - June 2017 University of California, Davis (UCDavis), U.S.A Research Stay. Three months visit at the Next Generation Networking Systems Lab.

Apr 2014 -Mar 2015 Medical Radiation Protection Department UTPR SL, Barcelona. Radiation Protection Technical Unit. Checking and reporting the functioning of X-ray generators, personal dosimetry, and legislation.

Education and training

Oct 2023 - Current; Retina International Education Hub.

2020 - 2020 Project Management Professional Project Management Institute PMP specialized certification by PM Office Global Telefónica.

July 2019 - Sept 2018 Master's Degree in Teacher Training UNIR, Online Teaching qualification for Physics, Mathematics and Chemistry.

2018 - 2015 PhD in Optical Communications UPC, Barcelona. Bringing Cognition to Multilayer Transport Networks, directed by Prof. Luis Velasco and Dr. Marc Ruiz.

2015 - 2014 Master Radiation Protection UPV, Valencia Radiation protection in Nuclear and Radioactive Facilities. Study of Radiation Physics: Detection and measurement.

2013 - 2012 Master in Physics and Physical Technologies Unizar, Zaragoza. M.Sc thesis research: Characterization of solid scintillation counters of ZnS(Ag) to determine gross alpha contents in water and soil samples of environmental interest.

2012 - 2006 Degree in Physics 5 years Unizar, Zaragoza. Specialization in the field of Dosimetry and Medical Physics.

Additional information

Publications

5 Journal publications and a Book Chapter High IF Journals, Wiley Ed.

· Publications in Q1 and Q2 Journals, Journal of Lightwave and Technology (JLT) or Optical Communications and Networking (JOCN).

· "Chapter 15. Toward Cognitive In-Operation Planning," in Provisioning, Recovery and In operation Planning in Elastic Optical Networks, ISBN 978-1-119-33856-7.

18 Conference Publications (peer-reviewed) International Conferences

Attendance to 10 top-level conferences in Optical Commun. Having presented 12 talks, co-autored 17 papers, and presented 2 demos.

Charing sessions at International Conferences in 2018 and 2019.

From my Google Scholar: https://scholar.google.es/citations?user=r_2H4LEAAAAJ&hl=es

- ☐ [BER degradation detection and failure identification in elastic optical networks](#)
AP Vela, M Ruiz, F Fresi, N Sambo, F Cugini, G Meloni, L Potì, L Velasco, ...
Journal of Lightwave Technology 35 (21), 4595-4604
- ☐ [Soft failure localization during commissioning testing and lightpath operation](#)
AP Vela, B Shariati, M Ruiz, F Cugini, A Castro, H Lu, R Proietti, ...
Journal of Optical Communications and Networking 10 (1), A27-A36
- ☐ [An architecture to support autonomic slice networking](#)
L Velasco, L Gifre, JL Izquierdo-Zaragoza, F Paolucci, AP Vela, ...
Journal of Lightwave Technology 36 (1), 135-141
- ☐ [Designing, operating, and reoptimizing elastic optical networks](#)
L Velasco, AP Vela, F Morales, M Ruiz
Journal of Lightwave Technology 35 (3), 513-526
- ☐ [Service-triggered failure identification/localization through monitoring of multiple parameters](#)
M Ruiz, F Fresi, AP Vela, G Meloni, N Sambo, F Cugini, L Potì, L Velasco, ...
ECOC 2016; 42nd European Conference on Optical Communication, 1-3
- ☐ [Distributing data analytics for efficient multiple traffic anomalies detection](#)
AP Vela, M Ruiz, L Velasco
Computer Communications 107, 1-12
- ☐ [Learning from the optical spectrum: Soft-failure identification and localization](#)
L Velasco, B Shariati, AP Vela, J Comellas, M Ruiz
2018 Optical Fiber Communications Conference and Exposition (OFC), 1-3
- ☐ [Traffic generation for telecom cloud-based simulation](#)
AP Vela, A Via, F Morales, M Ruiz, L Velasco
2016 18th International Conference on Transparent Optical Networks (ICTON), 1-4
- ☐ [Early pre-FEC BER degradation detection to meet committed QoS](#)
AP Vela, M Ruiz, F Fresi, N Sambo, F Cugini, L Velasco, P Castoldi
Optical Fiber Communication Conference, W4F. 3
- ☐ [Applying data visualization for failure localization](#)
AP Vela, M Ruiz, L Velasco
Optical Fiber Communication Conference, W1D. 5
- ☐ [Experimental assessment of node and control architectures to support the observe-analyze-act loop](#)
L Gifre, AP Vela, M Ruiz, JEL de Vergara, L Velasco
Optical Fiber Communication Conference, Th1J. 3
- ☐ [CASTOR: a monitoring and data analytics framework to help operators understand what is going on in their network](#)
AP Vela, L Gifre, OG De Dios, M Ruiz, L Velasco
2018 European Conference on Optical Communication (ECOC), 1-3
- ☐ [Combining a machine learning and optimization for early pre-FEC BER degradation to meet committed QoS](#)
AP Vela, M Ruiz, F Cugini, L Velasco
2017 19th International Conference on Transparent Optical Networks (ICTON), 1-4
- ☐ [Examples of machine learning algorithms for optical network control and management](#)
AP Vela, M Ruiz, L Velasco
2018 20th International Conference on Transparent Optical Networks (ICTON), 1-4
- ☐ [Monitoring and data analytics: Analyzing the optical spectrum for soft-failure detection and identification](#)
B Shariati, AP Vela, M Ruiz, L Velasco
2018 International Conference on Optical Network Design and Modeling (ONDM ...
- ☐ [Bringing data analytics to the network nodes](#)
AP Vela, A Via, M Ruiz, L Velasco
ECOC 2016; 42nd European Conference on Optical Communication, 1-3
- ☐ [Reducing virtual network reconfiguration and traffic losses under multiple traffic anomalies](#)
AP Vela, M Ruiz, L Velasco
Asia Communications and Photonics Conference, AF3E. 5
- ☐ [Soft failure localization in elastic optical networks](#)
AP Vela, B Shariati, M Ruiz, J Comellas, L Velasco
2018 20th International Conference on Transparent Optical Networks (ICTON), 1-4
- ☐ [Bringing data analytics to the network nodes for efficient traffic anomalies detection](#)
AP Vela, M Ruiz, L Velasco
2017 19th International Conference on Transparent Optical Networks (ICTON), 1-4
- ☐ [Autonomous Operations in Optical Networks](#)
AP Vela, M Ruiz, L Velasco
2019 21st International Conference on Transparent Optical Networks (ICTON), 1-4

+ others with less than 1 citation.

Projects

Worked as a researcher in:

- 2017: Metro Haul; METRO High bandwidth, 5G Application-aware optical network, with edge storage, compUte and low Latency <https://cordis.europa.eu/project/id/761727>
- Other national projects related to telecomunicaciones and data analysis.

Worked as a project manager:

- 2023: ARISTOS Postdoctoral Program in Biomedicine and Health Sciences, <https://cordis.europa.eu/project/id/101081334>

- 2023: EUCAIM: European Cancer Imaging Initiative, <https://digital-strategy.ec.europa.eu/en/policies/cancer-imaging>
- Other national projects related to biomedicine and nanomedicine.
- 2024: Others with the GA not signed yet.

Memberships

- 2018: Extraordinary Doctorate Award
- 2019: Optical Fiber Communic. Travel Grants IEEE, OSA and Corning
- 2012: 1st Scientific Photography Prize University of Zaragoza

I have attended, and presented 18 Conference Publications (peer-reviewed) at International Conferences

Other Relevant Information

I am a patient representative for Hereditary Retinal Dystrophies (in particular Stargardt)