

Jaime Cascante Vindas, Ph.D.

Personal information

Profession: Professor and university scientist.

Nationality: Costa Rican.

ID: 1-1008-0549.

Date of birth: August 6, 1978.

Place of birth: San José (Costa Rica).

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Work information

2019 - 2023. Director of the Department of Electronics and Telecommunications of the Electrical Engineering School, University of Costa Rica.

2018 - 2022. Sub-director of the Postgraduate Program of the Electrical Engineering School, University of Costa Rica.

2017 - current date. Coordinator of the Biophotonics area of the Photonics and Applied Laser Technology Laboratory (LAFTLA-BioPhotonics) of the Electrical Engineering School (UCR).

2017 - current date. Coordinator of the Analog Electronics Laboratory (eLab) of the Electrical Engineering School (UCR).

2016 - 2017. Sub-director of the Electrical Engineering School, University of Costa Rica.

2012 - 2015. Director of the Electronics and Telecommunications Department of the Electrical Engineering School, University of Costa Rica.

2011 - 2013. Director of the Postgraduate Program of the Electrical Engineering School, University of Costa Rica.

2010 - 2016. Coordinator of the Nonlinear Photonics Research Laboratory (NLPR-LAB) of the Electrical Engineering School (UCR).

2000 - 2016. Collaborator in the Laboratory of Photonics and Applied Laser Technology (LAFTLA) of the Electrical Engineering School (UCR).

Studies

2015. University of Valencia, Valencia, Spain. Postdoc. Project: Development of Yb-doped fiber optic lasers and application to supercontinuous generation.

2004 - 2010. University of Valencia, Valencia, Spain. PhD in applied physics. Program 500-175C, Photonics: fundamentals and devices.

2004 - 2006. University of Valencia, Valencia, Spain. DEA in the 500-175C PhD Program, Photonics: Fundamentals and Devices.

2002 - current date. University of Costa Rica, San José, Costa Rica. Licenciature's Plan at the School of Electrical Engineering with an emphasis on electronic data communication.

1997 - 2003. University of Costa Rica, San José, Costa Rica. Bachelor of Electrical Engineering with an emphasis on electronics and telecommunications.

1994 - 1996. Professional Technical College of Heredia, Heredia, Costa Rica. Middle Technician in Electrical Engineering.

Research projects and others

2022 - current date. Collaborator of the project VI-322-C2-519: "Supercitómetro: desarrollo de un citómetro de flujo con radiación láser supercontinua".

2020 - current date. Collaborator of the international project "Integrated Photonics-Nano Technologies for Bioapplications (IPN-Bio)", funded by the "European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 872049 (H2020-MSCA-RISE-2019-872049)".

2019 - current date. Coordinator of the project VI-322-B9-031: "Feasibility study for the manufacture of modulators with carbon nanotubes (CNT-SA) for biomedical lasers at the University of Costa Rica".

2019 - 2022. Coordinator of the project VI-322-B9-716: "Design and manufacture of the electronic system of an ultrafast broad spectrum fiber optic laser for biomedical applications".

2017 - 2018. Coordinator of the project VI-322-B7-057: "Investigation of new reference laser sources for biomedical spectroscopy".

2014 - 2017. Coordinator of the project VI-322-B4-601: "Investigation of new micro-structured fiber optic laser prototypes with applications in biomedical engineering".

2011 - 2015. Collaborator in the ED-2887 project: "Professional assistance in Electrical Engineering".

2011. Coordinator of the ED2371 project: "Electrical Engineering School Course Program".

Publications in magazines and conferences (last 5 years)

- [1] J. Rosses-Monge, and **J. Cascante-Vindas**, "Supercontinuum generation in zero-dispersion wavelength decreasing microstructure fiber with Q-switch pump laser," in XI Iberoamerican Optics Meeting / XIV Latinamerican Meeting on Optics, Lasers and Applications (RIAO/OPTILAS-2023), San José, Costa Rica, 27-31 mar. 2023.
- [2] T. Ramírez-Cortés, **J. Cascante-Vindas**, M. Montero-Villalobos, and E. Avendaño-Soto, "Fabrication and characterization of a carbon nanotube saturable absorber for fiber laser passive mode locking," in XI Iberoamerican Optics Meeting / XIV Latinamerican Meeting on Optics, Lasers and Applications (RIAO/OPTILAS-2023), San José, Costa Rica, 27-31 mar. 2023.
- [3] **J. Cascante-Vindas**, "Oportunidades de I+D en Ingeniería Biomédica en EIE-UCR," in V Seminario Internacional de Ciencias y tecnologías Biomédicas - Congreso Internacional PRIS-BIOMEDICA 2022, Puebla, México, 23-25 nov. 2022.
- [4] P. Montero-Sánchez, R. Román-Brenes, F. Siles, and **J. Cascante-Vindas**, "MISIM: Microstructured Fibers' Simulator," in Latin American Electron Devices Conference (LAEDC-2020), San José, Costa Rica, 25-28 feb. 2020.
- [5] **J. Cascante-Vindas**, A. Díez, and M. V. Andrés, "Fuentes láser de amplio espectro para aplicaciones biomédicas," in I Jornadas de Investigación de la Facultad de Ingeniería, UCR, San José, Costa Rica, 16-18 oct. 2019.
- [6] P. Montero-Sánchez, **J. Cascante-Vindas**, "Optical Power Verification of Commercial Laser Pointer Sold in Costa Rica," in Simposio de Metrología 2018, CENAM, Querétaro, México, 8-12 oct. 2018.