José Andrés Leal Ordóñez

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Experience

Scientific Researcher
Chalmers University of Technology
Aug 2023 - Present (2 months)
Developing new technologies to accelerate wound healing through DC electrostimulation.

ERC PoC project ProBER - Personalized Bioelectronics for Epithelial Repair

Guest Researcher
University of Freiburg
Aug 2023 - Present (2 months)

University Lecturer
Universidad del Valle de Guatemala
Nov 2021 - Present (1 year 11 months)
Biomedical Engineering profesor
- Physiology
- Biomaterials
- Bioelectricity & Bioelectronics
- Regulatory affairs

Guest Researcher
Universidad del Valle de Guatemala
Oct 2021 - Present (2 years)

Guest Researcher
Universidad Galileo
Oct 2021 - Present (2 years)
Introducing new technologies and projects to the Biomedical Engineering students (M.Sc.)

PHD Researcher
The University of Freiburg
Mar 2018 - Aug 2023 (5 years 6 months)
Working on ERC project SPEEDER (Supercapacitive Polymer Electrodes for Directing Epithelial Repair)

- Development of supercapacitive conducting polymer electrodes capable of sustaining DC stimulation within biologically relevant parameters.

- Electrode design, fabrication, and characterization through electrochemical testing.
- Development and characterization of stimulation paradigms required for control of skin cells involved in wound healing through electrostimulation with DC.

Research Assistant
IMTEK, University of Freiburg
Sep 2013 - Feb 2017 (3 years 6 months)
Worked at the laboratory for Biomedical Microtechnology.

- Implant Manufacturing
- Thin-film fabrication
- Thick-film fabrication
- Electrode design & fabrication
(PDMS laser technology, PI thin-film technology)
- Electrochemical evaluation
- Electronics design
- Programming
- Data Analysis

Education

The University of Freiburg
Doctor of Philosophy - PhD, Microsystems Engineering
Mar 2018 - Aug 2023

The University of Freiburg
Master of Science - MS, Microsystems Engineering
2015 - 2017
Focus on Biomedical Engineering

Thesis: Development of a thin-film pH sensor for in situ measurement of neural stimulation induced pH shifts

The University of Freiburg
Bachelor of Science - BS, Microsystems Engineering
2012 - 2015
Thesis: Development of a ceramic-based implantable connector

Licenses & Certifications

Foundations of Project Management - Coursera
KV7GSKB7BC4M

Project Initiation: Starting a Successful Project - Coursera
Q9X7ZH3XY2UC

Project Planning: Putting It All Together - Coursera
W8PAPP45GSGA

Google Project Management | Specialization - Coursera
BLQWCLY5WH6C

Skills

Entrepreneurship • Biomedical Engineering • Microfabrication • Research and Development (R&D) • Project Management • Medical Devices • Project Coordination • Regulatory Affairs • University Teaching • Mentoring

Honors & Awards

Best Project Award - KTUR
Sep 2021
Best project at the summer school for entrepreneurship organized by the KTUR - Knowledge Transfer Upper Rhein (University of Freiburg, University of Strasbourg, Fachhochschule Nordwestschweiz)

Distinguished Lecturer Award - Universidad Del Valle de Guatemala
Jun 2023
Distinction for outstanding results in student's evaluation of lecture performance