

ANDREA C. CÓRDOVA CRUZATTY

808 S Rural Rd
Tempe. AZ 85281

www.linkedin.com/in/accordova

accordova@asu.edu

EDUCATION

Doctor of Philosophy, Sustainable Energy 2020 - 2024

School of Sustainability, Arizona State University, Tempe, AZ.

Research Interest: Electric vehicles and Sustainable Energy transitions

Master of Engineering, Aerospace Engineering 2016

The Pennsylvania State University, State College, PA.

Culminating project: UAV design for antarctic ice thickness measurement

Bachelor of Engineering, Mechatronics 2014

Universidad de las Fuerzas Armadas - ESPE, Sangolquí, Ecuador

Focus on Automation Systems

PROFESSIONAL EXPERIENCE

Arizona State University

School of Sustainability, Arizona State University, Tempe, AZ

Aug 2020 - Present

RESEARCH ASSISTANT - Graduate research assistant for the following projects:

- Renewable Natural Gas production estimation model in Python. - *Spring 2021*
- *EV Charging for Multifamily Housing: Barriers and Opportunities* - *Fall 2021-Spring 2022*

STUDENT TEACHER

- SOS 322 International Development and Sustainability, Session B - *Summer 2021*
- SOS 171 The Thread of Energy, Session B - *Summer 2022*

TEACHING ASSISTANT - Assist undergraduate sustainability students in the following subjects:

- SOS 111 Sustainable Cities - *Fall 2020*
- SOS 324 Sustainable Energy, Technology and Systems - *Spring 2021*

STUDENT INSTRUCTOR - Sustainability Instructor for TRIO Upward Bound - *Summer 2021*

Universidad de las Fuerzas Armadas ESPE - Sede Latacunga

Nov 2016 - July 2020

Mechanics and Energy Department, Latacunga-Ecuador

PROJECT DIRECTOR - Mechatronics undergraduate community outreach.

RESEARCH COLLABORATOR - UAVs applications: sun powered UAVs, obstacle detection, geolocation.

UNDERGRADUATE PROFESSOR - Taught courses for students in the following subjects:

- CAD CAM CAE systems
- Hydraulic and Pneumatic systems
- Mechanical Industrial Instrumentation
- Automatic Process Control
- Fluid Mechanics
- Industrial Automation
- Energy Systems
- Introduction to Mechatronics
- Introduction to Control Systems

Cámara de Comercio Ecuador - Shanghai; Quito- Ecuador

Jan 2015 - May 2015

CONSULTANT

Consulting Area, Provided online technical assistance for members in acquiring machinery from Chinese companies.

Ecuadorian Space Institute; Quito-Ecuador Sep 2013 - Dec 2014
RESEARCH ASSISTANT

Research Department, Implemented sensors and uav systems for the project "Impact Of Climate Change And Nutrition In Rice, Hard Corn And Potato Crops with Crop Forecasting Models Through Space And Spectral Methods".

Ecuapack; Quito-Ecuador Feb 2013 - Aug 2013
AUTOMATION SPECIALIST

Automation Department, Testing and programming of packing machinery.

Empac Machine; Quito- Ecuador Jul 2012 - Jan 2013
CAD SPECIALIST

Manufacturing Department, Designing Machinery.

PUBLICATIONS

Obstacle detection algorithm by images with a ZED camera using ROS software in a drone. 2020
Milton Fabricio Perez Gutierrez, Andrea C. Cordova-Cruzatty, International Conference of Applied Technologies - ICAT 2020, Ecuador, December 2-4. ICAT 2020 Proceedings. April 1st, 2020. DOI:10.1007/978-3-030-71503-8_35

Geolocation and Counting of People with Aerial Thermal Imaging for Rescue Purposes. 2018
Córdova C. Andrea, Jiménez Q. Byron, Pardo I. Jorge, Toalombo CH. Inti, Wilbert G. Aguilar. Augmented Reality, Virtual Reality, and Computer Graphics 5th International Conference, AVR 2018 Otranto, Italy, June 24–27, 2018 Proceedings, Part I. eISBN 978-3-319-95270-3

Precise weed and maize classification through convolutional neural networks. 2017
Andrea, C.-C., Mauricio Daniel, B., Jose Misael, J.B. IEEE 2nd Ecuador Technical Chapters Meeting, ETCM 2017. October 16-20, 2017. eISBN: 978-1-5386-3894-1

Yield prediction for precision territorial management in maize using spectral data. 2015
Seshadri Sastry Kunapuli, Victor Patricio Rueda-Ayala, Grace Benavides, Andrea Córdova-Cruzatty, Alejandra Cabrera, Christian Fernández, Javier Maiguashca, Yield prediction for precision territorial management for maize using spectral data. Precision agriculture '15, 1. 2015. eISBN: 978-90-8686-814-8

MERITS AND AWARDS

Fast Pitch Competition Award 2022
Arizona Student Energy Conference AZSEC 2022

WorldSkills Ecuador. Mechatronics Champions. 2017
Expert professor, Team ESPE.

SENESCYT Scholarship for Graduate Studies 2015
Ecuadorian Government

Mechatronics and Its Applications. Course Scholarship. 2015
Ministry of External Affairs, Government of India
Central Institute of Tool Design - Hyderabad, India

Introduction to Satellite Communications. Program Scholarship 2014
Organization of American States (OAS) - CITEL

Scholarship granted during Spring Term. Participation on ASME Human 2009

Powered Vehicle Challenge (HPVC). *Universidad de las fuerzas Armadas - ESPE*, Sangolquí, Ecuador

LANGUAGES

Spanish - First language

English - Fluent, written and verbal.