2021 IEEE Colombian Conference on Applications of Computational Intelligence (ColCACI 2021)

Virtual Conference 26 – 28 May 2021



IEEE Catalog Number: ISBN:

CFP21O64-POD 978-1-6654-3535-2

Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc. All Rights Reserved

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

*** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.

 IEEE Catalog Number:
 CFP21064-POD

 ISBN (Print-On-Demand):
 978-1-6654-3535-2

 ISBN (Online):
 978-1-6654-3534-5

Additional Copies of This Publication Are Available From:

Curran Associates, Inc 57 Morehouse Lane Red Hook, NY 12571 USA Phone: (845) 758-0400

Fax: (845) 758-2633

E-mail: curran@proceedings.com Web: www.proceedings.com





May 26th - 28th, 2021, Cali - Colombia (Virtual Mode)



2021 IEEE Colombian Conference on Applications of Computational Intelligence – ColCACI

Table of Content

ID	TITLE	AUTHORs
1	Stock Price Analysis with Deep-Learning Models1	Juan Arosemena, Noel Pérez, Diego Benitez, Daniel Riofrio and Ricardo Flores-Moyano
2	Mobile Application for Anemia Detection through Ocular Conjunctiva Images7	Maileth Rivero-Palacio, Wilfredo Alfonso-Morales and Eduardo Caicedo-Bravo
4	Face Gesture Recognition Using Deep- Learning Models13	Andres Espinel, Noel Pérez, Daniel Riofrio, Diego Benitez and Ricardo Flores-Moyano
5	Near Helipad Auto Guidance System for Landing and Take-off of Helicopter19	Muhammad Yasir Imam
12	Low Cost Classification Method for Differentiated White Blood Cells using Digital Image Processing and Machine Learning Algorithms25	Santiago Lehenis Begambre Poveda, Carlos Esteban Castillo Fuentes, Luz Helena Villamizar Silva, Hugo Segura and Juan Carlos Aceros
13	Power quality event emulator using PSO algorithm30	Melissa Carolina Paternina Jimenez, Caicedo Peñaranda Edison Andres, Luis David Pabón Fernández and Jorge Luis Diaz Rodriguez
14	Automated Preprocessing Pipeline for EEG Analysis in Visual Imagery Tasks36	Christian Rosero-Rodríguez and Wilfredo Alfonso-Morales
15	Monitoring assessment of Santa River watershed in Perú applying a model based on fuzzy logic42	Alexi Delgado, Chiara Carbajal, Kevin Alejo, Nancy Vargas and Kevin Luna
17	Coccinellidae Beetle Specimen Detection Using Convolutional Neural Networks48	Mateo Vega, Diego Benitez, Noel Pérez, Daniel Riofrio, Giovanni Ramon and Diego Cisneros-Heredia
18	Feature Extraction for Extreme Precipitation Events using Deep-Networks53	Cristhian Eduardo Fernández-Álvarez and Wilfredo Alfonso-Morales
20	Respiratory Sounds Classification employing a Multi-label Approach59	Andrés Felipe Romero Gómez and Alvaro David Orjuela-Cañón
21	3D reconstruction of organ from CT images and visualization in a virtual reality environment64	Miguel Esteban Mora Gonzalez, Sara Daniela Galeano Galeano and Ricardo Alonso Espinosa Medina
22	A smart algorithm for traffic lights intersections control in developing countries69	Jose David Olaya Quiñones and Juan Carlos Perafan Villota