

2018 Congreso Argentino de Ciencias de la Informatica y Desarrollos de Investigacion (CACIDI 2018)

**Buenos Aires, Argentina
28 – 30 November 2018**



**IEEE Catalog Number: CFP18H47-POD
ISBN: 978-1-5386-5448-4**

**Copyright © 2018 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:	CFP18H47-POD
ISBN (Print-On-Demand):	978-1-5386-5448-4
ISBN (Online):	978-1-5386-5447-7

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

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

USING SOFTWARE DEFINED NETWORKING FOR CALL ADMISSION CONTROL AND VOIP APPLICATIONS	1
<i>Deolindo Zanuttini ; Christian Andres ; Joaquin Gonzalez ; Aldana Lacapmesure ; Daniel Priano ; Nicolás Pucci ; Pablo Bullian</i>	
ARIMA AND NEURAL NETWORK FOR SENSORS FAILURE DETECTION	6
<i>Rodolfo Rodrigo ; Daniel H. Patiño ; Gustavo Schweickardt</i>	
INTELLIGENT INSULIN PUMP DESIGN	12
<i>Guillermo Cocha ; José Rapallini ; Omar Rodriguez ; Carlos Amorena ; Hugo Mazzeo ; Carlos E. D'Attellis</i>	
ANALYSIS OF THE PERFORMANCE OF TCP VEGAS AND ITS RELATIONSHIP WITH ALPHA AND BETA PARAMETERS IN A WIRELESS LINKS NETWORK AND BURST ERRORS	16
<i>Carlos A. Talay ; Franco A. Trinidad ; Diego R. Rodriguez Herlein ; M. Luz Almada ; Claudia N. González ; Luis A. Marrone</i>	
HOME AUTOMATION: PROPOSAL FOR A LOW-COST AND NONINVASIVE APPROACH	22
<i>Mariano Aprea ; Eric Nothen ; Luciano Uberman</i>	
ON A MODEL OF CRIME AND PUNISHMENT DYNAMICS	28
<i>Mariano Aprea ; Ariel Arbiser ; Matías Monge</i>	
STUDY OF THE BRAIN WAVES FOR THE IDENTIFICATION OF THE BASIC NEEDS OF PATIENTS WITH AMYOTROPHIC LATERAL SCLEROSIS	34
<i>Brian Meneses-Claudio ; Avid Roman-Gonzalez</i>	
FUSION OF MAGNETIC AND WIFI FINGERPRINTS FOR INDOOR POSITIONING	40
<i>J. P. Grisales Campeón ; S. López ; S. R. de Jesús Meleán ; H. Moldovan ; D. R. Parisi ; P. I. Fierens</i>	
ANALYSIS OF IMPLEMENTING BLOCKCHAIN TECHNOLOGY TO THE ARGENTINIAN CRIMINAL RECORDS INFORMATION SYSTEM	45
<i>Alejandro Tomás Dini ; Esteban Gabriel Abete ; Marcelo Colombo ; Javier Guevara ; Bárbara Sol Menchón Hoffmann ; María Claudia Abeledo</i>	
EVALUATION OF THE NATIONAL OPTICAL FIBER BACKBONE NETWORK MODEL FOR THE UNIVERSAL INTERNET ACCESS IN PERU	48
<i>Martin M. Soto-Cordova ; Carlos Sotelo-Lopez</i>	
IMPLEMENTATION OF AN EVALUATION SYSTEM TO MEASURE AIR QUALITY ON PUBLIC TRANSPORT ROUTES USING THE INTERNET OF THINGS	53
<i>Martha Medina-De-La-Cruz ; Anderson Mujaico-Mariano ; Martin M. Soto-Cordova</i>	
PROPOSAL OF BLENDED LEARNING FOR ADVANCED STUDENTS USING A SPECIFICALLY DESIGNED WEB PRODUCT	57
<i>M. Monica R. Hencsek ; Patricia M. Calvo ; Juan J. Lopez ; Juan Carlos Capia</i>	
DETECTION AND ANALYSIS OF VULNERABILITIES IN CONVERGENT NETWORK PLATFORMS	62
<i>Fabian M. Carino ; Horacio Rene Del Giorgio ; Maria Claudia Abeledo ; Pablo Bullian ; Joaquin Gonzalez ; Monica Hencsek</i>	
SOLUTIONS FOR SMARTCITIES: PROPOSAL OF A MONITORING SYSTEM OF AIR QUALITY BASED ON A LORAWAN NETWORK WITH LOW-COST SENSORS	67
<i>Agustin Candia ; Soledad Natacha Represa ; Daniela Giuliani ; Miguel Ángel Luengo ; Andrés Atilio Porta ; Luis Armando Marrone</i>	
TECHNOLOGY PUSH: APPROACH FOR INNOVATION IN PERUVIAN COMPANIES	73
<i>Raquel M. Sotomayor-Parian ; Martin M. Soto-Cordova</i>	
A SPATIAL ASSESSMENT OF ANEMIA AMONG PERUVIAN CHILDREN AGED 6 MONTHS TO 5 YEARS BETWEEN 2016 AND 2017	77
<i>Carlos Sotomayor-Beltran ; Guillermo Zarate Segura</i>	
MOBILE FOLLOW-UP SYSTEM FOR ELDERLY AND DISABLED PEOPLE	82
<i>Pablo Martín Vera ; Mariano Kaimakamian Carrau ; Rocío Andrea Rodríguez</i>	
QUANTITATIVE EXPLORATORY STUDY OF THE PRESENCE OF THE VARIATION OF THE IONOSPHERE LOAD BEFORE EARTHQUAKES GREATER THAN M7.0 DEGREE IN THE WORLD DURING 2015	87
<i>Alva Mantari Alicia ; Guillermo Wenceslao ; Sotomayor Beltran Carlos ; Brian Meneses-Claudio ; Roman-Gonzalez Avid</i>	
SOCIAL COGNITIVE CAREER THEORY: A QUALITATIVE APPROACH IN PERUVIAN ENGINEERING FEMALE STUDENTS	93
<i>Jano Ramos-Diaz ; Rosmary Ramos Sandoval ; Miguel Barboza-Palomino</i>	

PRINCIPLES OF DESIGN, SOMETHING OF HISTORY AND TRENDS, IN ARCHITECTURES AND OPERATING SYSTEMS (I. OPERATING SYSTEMS)	99
<i>Roberto Bevilacqua ; Graciela Pataro ; Gastón Aguilera</i>	
ONTOLOGICAL REPRESENTATION APPLIED TO THE SYSTEMS ENGINEERING	104
<i>Torcoroma Velasquez Perez ; Hugo Fernando Castro Silva ; Didier Camilo Gaona Sanchez</i>	
VERSIONING STRATEGY FOR DEVOPS IMPLEMENTATIONS	109
<i>Nicolás Paez</i>	
PRINCIPLES OF DESIGN, SOMETHING OF HISTORY AND TRENDS, IN ARCHITECTURES AND OPERATING SYSTEMS (II. HISTORY)	115
<i>Roberto Bevilacqua ; Graciela Pataro ; Gastón Aguilera</i>	
PRINCIPLES OF DESIGN, SOMETHING OF HISTORY AND TRENDS, IN ARCHITECTURES AND OPERATING SYSTEMS (III. TRENDS)	124
<i>Roberto Bevilacqua ; Graciela Pataro ; Gastón Aguilera</i>	
USING CATEGORY THEORY TO STRUCTURE THE OCC THEORY OF EMOTIONS	131
<i>Michael Olmos Trujillo ; Diana F. Adamatti ; Ingo Siegert</i>	
EVALUATION OF INCLUSIVE WEBSITES FOR CHILDREN WITH AUTISM SPECTRUM DISORDERS USING THE AHP METHOD	137
<i>Alexi Delgado ; Nicolás Benites ; Betsabe Ayala</i>	
ACV ASSISTANCE SENSOR PLUS	142
<i>Diego Esquivel ; Juan Pablo Martinez ; Mauricio Miloqui</i>	
VIRTUAL LEARNING OBJECT FOR TEACHING PROCESSES IN DENTAL PROSTHESIS MODELING RECREATING DIGITAL MODELS	148
<i>German Herrera ; Javier Cifuentes ; Juan Chica ; María Wilches</i>	
STUDY OF THE BRAIN WAVES FOR THE DIFFERENTIATION OF GAMERS CATEGORY BETWEEN A NEWBIE AND A HARDCORE IN THE GAME DOTA 1	152
<i>Brian Meneses-Claudio ; Avid Roman-Gonzalez</i>	
INTEGRATING IEEE 802.11 TECHNOLOGY AND WIRELESS SENSOR NETWORKS USING PORME ROUTING PROTOCOL	156
<i>María Claudia Abeledo ; Lic. Fabio Sergio Bruschetti ; Javier Guevara ; Joaquín González ; Matías Marcicano ; Luis Marrone ; Pedro Iriso</i>	
EVALUATION OF TECHNOLOGICAL DEVELOPMENT FOR THE DEFINITION OF INDUSTRIES 4.0	165
<i>Alicia Mon ; Horacio René Del Giorgio ; Eduardo De María ; Matías Querel ; Claudio Figuerola</i>	
IMPLEMENTATION OF AN ASYNCHRONOUS MOBILE SYSTEM FOR THE DIAGNOSIS OF MELANOMA IN CALLAO	171
<i>Alva Mantari Alicia ; Cristian Ordoñez ; Vergaray Zavaleta Sadith ; Walter Castillo Llaque ; Brenda Palomino Zarate ; Cesar Ramos Aguilar ; Zimic Peralta Mirko</i>	
PROCESSING TOOL FOR GENERATING GLOBAL IONOSPHERE MAPS(GIM)	177
<i>Guillermo Wenceslao Zarate Segura ; Carlos Sotomayor-Beltran</i>	
INTEGRABLE SYSTEMS AND SPIN GAP	181
<i>Zeila V. T. Santos</i>	
ELIMINATION OF BRIGHTNESS AND RECONSTRUCTION OF CERVIX IMAGES FOR DIAGNOSIS IN CERVICAL CANCER	185
<i>Buitrago C. Felipe ; Ruiz V. Carlos ; Germán Olarte</i>	
EDU-CIAA IIR TYPE FILTER	190
<i>Julián Ezequiel Parengo ; Soldano Aretuo ; Ezequiel Matías</i>	
INCORPORATING NEW NODES TO FUNCTIONING WIRELESS SENSOR NETWORKS THAT USE THE PORME ROUTING PROTOCOL	196
<i>Joaquín González ; Fabio Sergio Bruschetti ; María Claudia Abeledo ; Daniel Priano ; Aldana Lacapmesure ; Deolindo Zanuttini ; Matías Marcicano ; Pedro Iriso</i>	
TOWARDS SMART CITIZEN SECURITY BASED ON SPEECH RECOGNITION	201
<i>Jorge Roa ; Guillermo Jacob ; Leandro Gallino ; Patrick C. K. Hung</i>	
A PROPOSAL BASED ON KNOWLEDGE MODELING AND ONTOLOGIES TO SUPPORT THE ACCESSIBILITY EVALUATION PROCESS OF LEARNING OBJECTS	207
<i>Paola Ingavélez-Guerra ; Vladimir Robles-Bykbaev ; S. Otón ; Pablo Vera-Rea ; Jorge Galán-Men ; Marlon Ulloa-Amaya ; J. R. Hilera</i>	
AN INTERACTIVE TOOL BASED ON SERIOUS GAMES AND FUZZY LOGIC TO SUPPORT THE MOTOR DEVELOPMENT AND REHABILITATION OF CHILDREN WITH DISABILITIES	212
<i>Angel Pérez-Muñoz ; Yaroslava Robles-Bykbaev ; Vladimir Robles-Bykbaev ; Diana Pérez-Muñoz ; Paola Ingavélez-Guerra ; Mayra León-Cadme</i>	

AN INTERACTIVE EDUCATIONAL TOOL BASED ON AUGMENTED REALITY, MOBILE APPLICATIONS AND COMIC STRIPS TO TEACH CHILDREN THE CAÑARI AND INCA CULTURES IN THE ECUADORIAN CONTEXT	218
<i>Alexis Medina-Carrión ; Paúl Arias-Espinoza ; Vladimir Robles-Bykbaev ; Yaroslava Robles-Bykbaev ; Fernando Pesántez-Avilés ; Jorge Ortega</i>	
SERIOUS GAME TO IMPROVE FINE MOTOR SKILLS USING LEAP MOTION.....	223
<i>Julio César Cabrera Hidalgo ; Yaroslava Robles Bykbaev ; John David Arévalo Delgado ; Tatiana Pesántez Coyago ; Vladimir Robles Bykbaev</i>	
QUALITY OF SERVICE ASSESMENT USING MACHINE LEARNING TECHNIQUES FOR THE NETCONF PROTOCOL	228
<i>Javier A. Ouret ; Ignacio Parravicini</i>	
DEVELOPMENT OF A GRAPHIC INTERFACE FOR THE THREE-DIMENSIONAL SEMIAUTOMATIC GLIOBLASTOMA SEGMENTATION BASED ON MAGNETIC RESONANCE IMAGES	233
<i>Alexander Mulet de los Reyes ; María Elena Buemi ; Maikel Noriega Alemán ; Cecilia Suárez</i>	
POINT CLOUD DENOISING USING DEEP LEARNING	239
<i>Jonathan Almonacid ; Celia Cintas ; Claudio Derieux ; Mirtha Lewis</i>	
COMPARISON OF QUEUEING DISCIPLINES IN NETWORKS WITH SELF-SIMILAR TRAFFIC	244
<i>Gustavo A. Hirchoren ; Nicolás Porrez</i>	
SEGMENTATION OF THE LOBULAR CLEFT OF THE EAR RELATED TO CARDIOPATHY	249
<i>Eliseo Chávez-Alarcon ; Pedro Segura-Saldaña ; Brian Meneses-Claudio ; Avid Roman-Gonzalez</i>	
FIRST APPROACH TO IMAGE STACKING USING A SINGLE-BOARD COMPUTER - A SMALL STUDY OF STRENGTHS, OPPORTUNITIES, WEAKNESSES AND THREATS.....	254
<i>Martin Gonzalez Perna ; Nadia Gonzalez ; Julian Ariel Karp ; Pedro Iriso ; Roger Duran ; Javier Guevara ; Diego Salamida</i>	
INFLUENCE OF MAN ON THE METEOROLOGICAL CONDITIONS OF THE CORONCORO WETLANDS LOCATED IN THE CITY OF VILLAVICENCIO USING MULTIPARAMETER DATALOGGER AND IOT TECHNOLOGY	259
<i>Carlos Ariel Beltran Encio ; Juan Alejandro Chica Garcia ; Javier Cifuentes</i>	
A NEW PATH TO PREDICT SUCCEPTIBILITY OF COCOA POD AGAINST CARMENITA FORASEMINIS (BUSCK) EICHLIN USING A MATHEMATICAL MODEL	264
<i>Raquel M. Sotomayor-Parian ; Martin M. Soto-Cordova</i>	
FORMALDEHYDE ADSORPTION USING A "DYNAMIC WATER BUBBLE" IN REACTORS MANUFACTURING PHENOLIC RESIN.....	268
<i>Carlos Medina-Ramos ; Daniel Carbonel-Olazabal ; Judith Betetta-Gomez ; Vicenta Tafur-Anzualdo ; David Navarro-Condezo ; Miguel Pilco-Barrenechea</i>	
Author Index	