

2019 International Conference on Advanced Mechatronics, Intelligent Manufacture and Industrial Automation (ICAMIMIA 2019)

**Batu, Malang, Indonesia
9 – 10 October 2019**



**IEEE Catalog Number: CFP19AWY-POD
ISBN: 978-1-7281-3091-0**

**Copyright © 2019 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:	CFP19AWY-POD
ISBN (Print-On-Demand):	978-1-7281-3091-0
ISBN (Online):	978-1-7281-3090-3

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 Content

2019 International Conference on Advanced Mechatronics, Intelligent Manufacture and Industrial Automation (ICAMIMIA)

NO	Paper ID	Paper Title	Page
1	1570592818	Monitoring System Garden Light Solar Cell Based on Smart IoT	N/A
2	201975	Detection Of Children With Personality Through Fingerprint Random Forest And Maximum Entropy Method	7
3	194531	Subarray Design with Two Rectangular Elements for Massive MIMO System Development	13
4	194542	Artificial Intelligent Based Fall Detection System for Elderly People Using IoT	19
5	201972	Detection of Children's Personality with Fingerprint Using K-Nearest Neighbor (Knn) and Decision Tree Methods	25
6	201974	Early Detection Of Skin Basal Cell Carcinoma Nodular Using Ectraction Methods ABCD Feature Comparison With Dematofibroma Data	31
7	1570561164	Object Detection of Surgical Instruments for Assistant Robot Surgeon using KNN	37
8	1570564670	Underwater Image Enhancement: Combining the Polarization and the Dark Channel Prior Approaches	N/A
9	1570566526	Heading Control on Differential Drive Wheeled Mobile Robot with Odometry for Tracking Problem	47
10	1570572174	Optimal Power Flow of the Manokwari Power Grid Regarding Penetration of 20 MW Combined Cycle Power Plant	53

NO	Paper ID	Paper Title	Page
11	1570572210	Early Detection of Diabetes Mellitus using Statistical Texture Feature in Finger Nail Image	N/A
12	1570572265	Flight Test of Pasopati Electric Cruise Missile	63
13	1570579467	Design of Earthquake Shaking Table (EST) Using Ball Screw Guide Linear Actuator	69
14	1570579585	Classification Of Eligibility Consumption Of Manalagi Apple Fruit Varieties Using Artificial Intelligence	75
15	1570579590	Sleepiness Detection for the Driver using Single Channel EEG with Artificial Neural Network	80
16	1570582927	Constrained H_{∞} Control Application to Inverted Pendulum with Control Moment Gyroscope	86
17	1570584111	Building Crack Due To Lombok Earthquake Classification Based on GLCM Features and SVM Classifier	91
18	1570584973	Performance Evaluation of Hybrid Electric Propulsion System for AUVs with Simulation Results	N/A
19	1570585033	Lane Keeping Assist Based on Fuzzy Logic using Camera Sensor	101
20	1570585049	Design Of Sinusoidal Signal Generator Using Pipelined CORDIC Architecture Based On Altera Cyclone II FPGA	105
21	1570585075	Baggage Tracing at Airports using Near Field Communication	109
22	1570586789	Blended Learning Development Using Self-Paced Learning Through Video Online Learning	N/A
23	1570588568	Depth Control Simulation of Autonomous Underwater Vehicle with Communication Delay	119
24	1570588656	Smart Lamp Control Based on User Behavior For Two Lamps Using K-Nearest Neighbour	123

NO	Paper ID	Paper Title	Page
25	1570588664	Comparative Study of Fuzzy-PID and Fuzzy-PI Control Systems on DC Motor Speed for Four-Wheeled Mobile Robotic	129
26	1570588886	Early Detection of Superficial Basal-Cell Carcinoma Skin Cancer with Extraction Method ABCD Feature Based on Android	134
27	1570591171	Water Monitoring Prototype Using Internet of Things Technology	141
28	1570591391	Coordination of Electricity Protection in Piru Power Grid	145
29	1570591508	Wavelength Effect on Graphene Oxide-Coated Plastic Optical Fiber for Dissolved Oxygen Sensor	151
30	1570591672	Design and Simulation of Herbal Medicine Milling System	155
31	1570591674	Real-time Players Movement Monitoring on Basketball Game using UWB Multidrop Ranging and Trilateration	159
32	1570591675	Design of Level Control System in Storage Tank Using Ultrasonic Sensor on Mini Plant for Purification of Salt	N/A
33	1570591832	Opinion Spam Detection in Product Reviews Using Self Training - Semi Supervised Learning Approach	169
34	1570592021	Face Recognition in Kindergarten Students using the Principal Component Analysis Algorithm	174
35	1570592049	User Experience Testing Based Reliability Analysis For Evaluating Psymo Application	N/A
36	1570592359	Automatic Detection of Breast Cancer in Mammographic Image Using the Histogram Oriented Gradient (HOG) Descriptor and Deep Rule Based (DRB) Classifier Method	185
37	1570592363	Structural Displacement Measurement with High-speed Vision System and Retro-reflective Markers	191

NO	Paper ID	Paper Title	Page
38	1570593679	Size, Topology, and Shape Optimization of Truss Structures using Symbiotic Organisms Search	197
39	1570593932	Induction Motor Stator Fault Detection Using Discrete Wavelet Transform Based on Statistical Parameters	202
40	1570594875	Prediction of DNA Hepatitis C Virus based on Recurrent Neural Network-Back Propagation Through Time (RNN-BPTT)	208
41	1570595126	Characterization of Speed Based On Fuel Input Ratio On Generator Set Dual Fuel (Gasoline - Biogas) Using Artificial Neural Networks	215
42	1570595128	Simulation Of Two Dimensional Navier-Stokes Equation On Circular Body And Merapi Shape Barrier	N/A
43	1570595853	Autonomous Car Simulation Using Evolutionary Neural Network Algorithm	226
44	1570595854	Taxonomy of IoT Woodworking CNC Machine 1000 (WCM-1000) Under Environment of Industry 4.0	231
45	1570596094	Comparison of Ensemble Kalman Filters with Unscented Kalman Filters for Estimating Motion of Moving Projectile Shooter	235
46	1570596660	The Feasibility Study of Mountain Water Treatment into Drinking Water Using Reverse Osmosis in Kediri, Indonesia	N/A
47	1570597125	Performance Analysis of Multihop Communication on a SCADA System	N/A
48	1570597153	Design of Wind Turbine Output Voltage Control Systems in Multi-Input Buck Converter Using Fuzzy Logic Control for Battery Charging	249
49	1570597190	Single Speaker Recognition Using Deep Belief Network Gender Classification Voices	253
50	1570597887	Toothpaste Tube Detector Inside Cardboard Using Proximity Inductive Sensor To Maintain Quantity Of Product	259

NO	Paper ID	Paper Title	Page
51	1570598008	Carbon Monoxide and Methane Gas Identification System	263
52	1570598016	Prototype of Liquid Materials Mixing System using Microcontroller	268
53	1570598023	Design of Gas Detection Toxic Sulfur Dioxide (SO ₂) in The Mountain Activity Area	272
54	1570598156	A Water Tank Level Control System Using Angular Movement in the SLC Plant	N/A
55	1570598922	Backpropagation and Radial Basis Function Neural Network to Predict Top-Oil Temperature of Distribution Transformer	282
56	194527	Omni-Wheeled Robot with Rapidly-exploring Random Tree (RRT) Algorithm for Path Planning	288
57	194529	Calculator for Blind with Self Correction Feature using Voice Output	293
		No Show Paper	
59	194535	Water Leak Detection and Shut-off System on Water Distribution Pipe Network Using Wireless Sensor Network	297
60	194536	Centralized Post Paid Water Meter Controller Using Wireless Sensor Network	302
61	194538	Design of Condensers on Miniplant Pyrolysis "Machine for Converting Plastic Waste Into Oil Fuel"	306
62	201947	Power Extraction Based on Particle Swarm Optimization For Wind Energy Conversion System	310
63	201948	An Improved PID Controller Using Fuzzy Logic for SEPIC DC/DC Converter	315
64	201952	UNUSAITS AUV Navigation and Guidance System with Nonlinear Modeling Motion using Ensemble Kalman Filter	321
65	201953	Trajectory Estimation of Autonomous Surface Vehicle using Square Root Ensemble Kalman Filter	325

NO	Paper ID	Paper Title	Page
66	201954	Design of Sliding Mode Control for Linearized Touristant ASV Model	329
67	201957	Estimation of UNUSAITS AUV Position of Motion Using Extended Kalman Filter (EKF)	334
68	201959	Unmanned Vehicle Using Received Signal Strenght Indicator (RSSI) in Instant Beverage Industry	340
69	201968	Detection of Fire With Image Processing Using Backpropagation Method	344
70	201969	Web-Based Flood Warning System Using Decision Tree Method	350
71	201971	Prototype Design Mapping of kWh Meters Based on Internet of Things (IoT)	356
		No Show Paper	
73	1570598637	A Feasibility Study of Piping System for Water Supply from Bengawan Solo River to Sinan Lamongan	N/A