

2022 IEEE 10th Conference on Systems, Process & Control (ICSPC 2022)

**Malacca, Malaysia
17 December 2022**



**IEEE Catalog Number: CFP22EUT-POD
ISBN: 978-1-6654-7099-5**

**Copyright © 2022 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:	CFP22EUT-POD
ISBN (Print-On-Demand):	978-1-6654-7099-5
ISBN (Online):	978-1-6654-7098-8

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

	Page
<i>Organizing Committee</i>	iii
<i>Technical Reviewers</i>	iv
<i>Paper Title & Authors</i>	
Design and Development of an IoT Virtual Doctor Robot (IVDR) for the Hospital Station Safaa Najah Saud Al-Humairi, Alexander Eugene Yih and R. Junaidi Daud	1
Raspberry PI Based: Design an Android-Thermal Surveillance Robot Safaa Najah Saud Al-Humairi, Ummar Idraqi Mohamad Noh and Wee Ying Ci	7
Design and Development of an IoT Contactless Door Buzzer, Automation and Home Security Device Safaa Najah Saud Al-Humairi, Khisharn Selvamani and Lilysuriazna Raya	12
Modelling of Cupping Suction System based on System Identification Method Kavindran Suresh, Mohd Riduwan Ghazali and Mohd Ashraf Ahmad	18
Cupping Suction System with Fuzzy Logic Controller Design Mohd Riduwan Ghazali, Mohd Ashraf Ahmad, Yoong Tai Hui, Nor Aimi Najwa Shamsudin and Wan Ismail Ibrahim	23
Development on Autonomous Object Tracker Robot using Raspberry Pi Nuha Ilya Rasidi, Omar Ismael Al-Sanjary, Manar Y. Kashmola and Kevin Loo Teow Aik	29
Indoor Safety Monitoring and Auto Temperature Detector for Covid Omar Ismael Al-Sanjary, Batrisyia Anati Idzhar and Manar Y. Kashmola	34
A Novel Triple Radar Arrangement for Level 2 ADAS Detection System in Autonomous Vehicles Javad Enayati, Pedram Asef and Yeshwanth Jonnalagadda	39
Factors Affecting the E-Banking User Acceptance in Jomhouria Banks in Libya Musbah Abdulkarim Musbah Ataya, Rabab Alayham Abbas Helmi and Adam Amril Jaharadak	45
Game-Based Learning as a Teaching and Learning Tool for Dyslexic Children Siti Nur Sarah Abu Bakar, Noor Hafizah Mahamarowi and Safinaz Mustapha	50
Implementation of Safe Experimentation Spiral Dynamics Algorithm for Self-Tuning of PID Controller in Elastic Joint Manipulator Mohd Ashraf Ahmad, Mohd Zaidi Mohd Tumari, Mohd Riduwan Ghazali and Mohd Helmi Suid	56

Optimum Damping and Spring Stiffness of Semi-Trailer Truck for Minimizing Unwanted Body Motion Due to Road Irregularities Using Taguchi Method	62
Khisbullah Hudha, Rakschini Elanggovan, Alawiyah Hasanah Mohd Alawi, Zulkiffli Abd Kadir, Noor Hafizah Amer and Nur Akmal Haniffah	
Yaw Motion Analysis of Single-Trailer Truck Using Yaw Amplification Factor (YAF)	68
Zulkiffli Abd Kadir, Mohamad Huzairi Mohamad Yusri, Amrina Rasyada Zubir, Khisbullah Hudha, Noor Hafizah Amer and Nur Akmal Haniffah	
Dark Net Forum Analyzer Using Meta Data Search Bots	73
Rabab Alayham Abbas Helmi, Naveen Baskaran, Arshad Jamal and M. N. Mohammed	
Design and Development of Indoor Campus Navigation Application	77
Rabab Alayham Abbas Helmi, Harini Ravichandran, Arshad Jamal and M. N. Mohammed	
Design and Development of Virtual Autopsy System for Teaching Medical Undergraduates	83
Rabab Alayham Abbas Helmi, Sohayla M. Attalla, Muhammad Fareez Lutfi Faizol and Md Gapar Md Johar	
Accuracy Assessment of Airborne Mapping Based on Variation of Number and Distribution of Ground Control Points	88
Muhammad Syafiq Muhammad Zaly Shah, Mohd Farid Mohd Ariff and Ahmad Firdaus Razali	
Improving Velocity Prediction in Electric Vehicles using Hybrid Artificial Neural Network (ANN)	94
Ashruti Upadhyaya and Chitralekha Mahanta	
A Model for Collaboration Tool Adoption in Distributed Project Team	100
Zurida Ishak, Rabab Alayham Abbas and Vitiyataran TM Karunanithi	
Validation of Variable-Value Stream Mapping Model by using Monte Carlo Simulation and Risk Assessment Approach	106
Mohd Shihabudin Ismail, Mohamad Shaiful Ashrul Ishak, Amir Yazid Ali and Muhammad Iqbal Muhammad Hussain	
Strength Analysis of Shock Strut of Aircraft Landing Gear Based on ANSYS	111
Peng Ni	
Statistical Analysis of High-grade Samples from 4-Grade Agarwood Essential Oil	117
Anis Hazirah 'Izzati Hasnu Al-Hadi, Aqib Fawwaz Mohd Amidon, Nurlaila Ismail, Siti Mariatul Hazwa Mohd Huzir, Zakiah Mohd Yusoff, Saiful Nizam Tajuddin and Mohd Nasir Taib	
CopyPoppy – A Source Code Plagiarism Detector	123
Nik Faris Aiman Nik Rahiman, Md. Gapar Md. Johar and Rabab Alayham Abbas Helmi	
Ego Lane Yaw Rate Extraction Using LaneNet Network	129
Wan Muhammad Hafeez Wan Azree, Mohd Hatta Mohammed Ariff and Hairi Zamzuri	
Performance Analysis on Interpolation-based Methods for Fingerprint Images	135
Noor Zaim Fariz Nor Azam, Haniza Yazid and Saufiah Abdul Rahim	
NexusKaizen - A Sustainable Network Visualization System	141
Arshad Jamal, Manraj Singh Rajeshpal Singh, Rabab Alayham Abbas Helmi, Ghazali Sulong and M. N. Mohammed	
Schematic of IoT Micro Transit Implementation: A Preliminary Outlook for Exploration	146
Siti Salwa Salleh, Wan Aryati Wan Ghani and Juliana Hamka Kamarodin	

Detecting Abnormality on Coronary Artery Image by Extracted Edges to Deep Learning	151
Le Nhi Lam Thuy, Quang Ngoc Trieu, Pham The Bao and Truong Dat Nhan	
Model Order Reduction Method based on Improved Sine Cosine Algorithm	155
Mohd Zaidi Mohd Tumari, Mohd Ashraf Ahmad, Mohd Helmi Suid and Mohd Riduwan Ghazali	
End-Product of Solar-Sharing Smart Lighting Artificial Intelligence Driven Platform for High-Valued Crops (Lactuca Sativa) on Indoor Hydroponics System	160
Myrtel Bernardo, Arnel Fajardo and Ruji Medina	
Feasibility Study of Wind Power Generation System Using Small Scale Wind Turbines	166
Wan Mohammad Amirul Mohd Adnan, Anees Abdul Aziz and Lilysuriazna Raya	
DC Motor System Identification Simulator App for Online Learning of Automatic Control System Subjects	170
Riady Siswoyo Jo and Hudyjaya Siswoyo Jo	
Log Necropsy: Web-Based Log Analysis Tool	176
Ayesha Kamal, Asif Iqbal Hajamydeen and Adam Amril Jaharadak	
Securing Digital Payment by using Blockchain Technology	180
Rabab Alayham Abbas Helmi and Chua Shang Ren	
Pear Classification using Machine Learning	186
Agus Pratondo and Astri Novianty	
Enhanced Network Solution for Flexible Working Environment	191
M. S. M. Subair, A. Sahthiyan, S. S. Bhaskaran, F. N. Zaini, A. F. Rozley and P. S. JosephNg	
Hand Segmentation for Chest Pain Behaviour of a Car Driver in Vehicle by Using Fusion Watershed and Blob Analysis	197
Noraizan Ibrahim, Rohana Abdul Karim, Nurul Wahidah Arshad, Yasmin Abdul Wahab and Adhi Harmoko Saputro	
Comparative Study for Cursor Detection at Endoscopic Images for Telepointer	203
Rohana Abdul Karim, Muhamad Hamizi Zaidi Mohd Jonhanis, Wan Nur Azhani W. Samsudin, Nurul Wahidah Arshad and Nor Farizan Zakaria	
Modeling and Dynamic performance of Energy Storage -Rotary Series Elastic Actuator for Lumbar Support Exoskeleton	208
Omar Sabah Al-Dahiree, Raja Ariffin Raja Ghazilla, Hwa Jen Yap, Mohammad Osman Tokhi and Gan Woun Yoong	
A Lane Detection Using Image Processing Technique for Two-Lane Road	214
Noorfadzli Abdul Razak, Muhammad Zaim Mazlan, Juliana Johari, Syahrul Afzal Che Abdullah and Ng Kok Mun	
Soft Exoskeleton for Hand Rehabilitation: An Overview	220
Zakarya Zyada, Khaled Alharbi and Mohamed A. Omar	
Big Data and Business Intelligence - A Data Driven Strategy for Business in Bosnia Herzegovina	226
Anes Kelić, Ali Almisreb, Nooritawati Md Tahir and Jamil Bakri	
Partial Discharge Monitoring and Analysis using Phase Resolve Partial Discharge Pattern	231
Muhamad Azizulhakim Mohamed Asseri, Mohd Hezri Fazalul Rahiman and Mohd Helmy Halim Abdul Majid	

Performance Analysis of Heterogeneous Data Transmission in 5G C-V2N Network	236
Muhammad Asyraf Mustaffa, Husna Zainol Abidin, Lucyantie Mazalan, Fadhlan Hafizhelmi Kamaru Zaman, Ng Kok Mun and Syahrul Afzal Che Abdullah	
Crime Scene Prediction Using the Integration of K-Means Clustering and Support Vector Machine	242
Awangku Harraz Aiman Awangku Bolkihah, Hafizatul Hanin Hamzah, Zaidah Ibrahim, Norizan Mat Diah, Azizian Mohd Sapawi and Haslizatul Mohamed Hanum	
Data Mining Analysis of Online Drug Reviews	247
Samuel-Soma M. Ajibade, Abdelhamid Zaidi, Catherine P. Tapales, Dai-Long Ngo-Hoang, Muhammad Ayaz, Johnry P. Dayupay, Yakubu Aminu Dodo, Sushovan Chaudhury and Anthonia Oluwatosin Adediran	
ECOC-SVM Classification of Coffee Roast Levels based on MNDT s-Parameters	252
Azlan Salim, Ihsan Mohd Yassin, Mohd Khairil Adzhar Mahmood, Zuhani Ismail Khan, Megat Syahirul Amin Megat Ali, Khairul Khaizi Mohd Shariff, Fairul Nazmie Osman, Adizul Ahmad and Farzad Eskandari	
CNN-based Deep Transfer Learning Approach for Detecting Breast Cancer in Mammogram Images	256
Dilovan Asaad Zebari, Habibollah Haron, Dawlat Mustafa Sulaiman, Yusliza Yusoff and Mohamad Nurfalihin Mohd Othman	
Chronic Kidney Disease Prediction based on Data Mining Method and Support Vector Machine	262
Muhamad Huzaimi Abdul Ghafar, Nurul Aleena Abdullah, Abdul Hadi Abdul Razak, Megat Syahirul Amin Megat Ali and Syed Abdul Mutalib Al-Junid	
Preliminary Kidney Disease Diagnostic System based on Concentration of Hydrogen Ions in Urine	268
N. A. F. Shamsudin, A. H. A. Razak, M. H. Abdul Ghafar, A. K. Halim, M. F. Md Idros, F. N. Osman and S. A. M. Al Junid	
Human Tracking and Following using Machine Vision on a Mobile Service Robot	274
Cherng Liin Yong, Ban Hoe Kwan, Danny Wee-Kiat Ng and Hong Seng Sim	
Development of an Autonomous Mobile Manipulator for Pick and Place Operation Using 3D Point Cloud	280
Sheng-Wei Sim, Ban-Hoe Kwan, Wun-She Yap and Danny Wee-Kiat Ng	
Comparative Analysis for Customer Profiling and Segmentation in Food and Beverages Using Data Mining Techniques	286
Nur Ulfah Maisurah Mohd Faiz, Muhaini Othman, Mohd Najib Mohd Salleh, Yana Mazwin Mohmad Hassim, Suziyanti Marjudi, Munirah Mohd Yusof, Mohd Zaki Mohd Salikon and Tan Kang Leng	
Recognition of Real-Time Hand Gestures using Mediapipe Holistic Model and LSTM with MLP Architecture	292
Maricel L. Amit, Arnel C. Fajardo and Ruji P. Medina	
An Application of Principal Component Analysis in Aspergillus Species Identification	296
Nur Rodiatul Raudah Mohamed Radzuan, Haryati Jaafar and Farah Nabilah Zabani	
A Modified Non-separable Haar Wavelet Transform with Rabin-p Cryptosystem for Colour Image Watermarking	302
Muhammad Khairi A Razak, Kamilah Abdullah and Suhaila Abd Halim	
Comparison of Wood Classification using Machine Learning	308
Agus Pratondo and Astri Novianty	

Publication Management System using Scopus API	313
Badrul Hisham Fitri Mohd Ijazi, Syahrul Afzal Che Abdullah, Ng Kok Mun, Norashikin M. Thamrin, Noorfadzli Abdul Razak and Zainal Hisham Che Soh	
A Review of Commonly Used Machine Learning Classifiers in Heart Disease Prediction	319
Alimul Mahfuz Tushar, Abdul Wazed, Ehsanuzzaman Shawon, Muntasir Rahman, Md. Ismail Hossen and Jesmeen M. Z. H.	
Image Enhancement Methods for Anterior Segment Photographed Images	324
Laily Azyan Ramlan, Wan Mimi Diyana Wan Zaki, Haliza Abdul Mutalib, Aqilah Baseri Huddin and Aini Hussain	
Region of Interest Localisation of Hematopoietic Stem/Progenitor Cell Images	330
Nurul Syahira Mohamad Zamani, Wan Mimi Diyana Wan Zaki, Aqilah Baseri Huddin and Zariyantey Abdul Hamid	
Author's Index	335