2022 International Conference on Engineering and Emerging **Technologies (ICEET 2022)**

Kuala Lumpur, Malaysia 27 – 28 October 2022



IEEE Catalog Number: CFP22M57-POD ISBN:

978-1-6654-9107-5

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:
 CFP22M57-POD

 ISBN (Print-On-Demand):
 978-1-6654-9107-5

 ISBN (Online):
 978-1-6654-9106-8

ISSN: 2409-2983

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



		Table of Conte	nt	
Sr. No.	Paper_ID	Title	Authors	Page No.
1	1	Application of Random Forest Model for Traffic Accidents Severity Prediction in Qassim Province of Saudi Arabia	Meshal Almoshaogeh*	1
2	3	Enhancements of Pass Play Quantification Method with Geometric Features of Formations	Tatsuya Mimura; Yohei Nakada	7
3	5	Comparative Analysis of KNN, Random Forrest, Decision Tree and SVM in Application to Millimeter Wave Chemical Detection	Lorena C Ilagan	13
4	9	A Review on the Hybrid Solar-Wind-Pumped Hydroelectric Energy Storage Systems	Khaleeq Tajamal; Muhammad Usman	19
5	12	Exploring the Impact of an Augmented Reality Application for Bespoke Musical Instruments	Ikram Asghar*; Rahmat Ullah; Mark Griffiths; Rhys Thomas; Geraint Frowen	24
6	14	A Predictive Model for R0 (SARS-COV2)	Yasmany Fernández Fernández*; Sira M. Allende-Alonso; Ridelio Miranda-Pérez; Gemayqzel Bouza-Allende; Elia N. Cabrera-Alvarez	30
7	16	Frequency Quadrature Amplitude Modulation based Scheme for Dual Function Radar and Communication Systems	Muhammad Fahad Munir*; Abdul Basit, Wasim Khan, Athar Waseem, Ahmed Saleem, Abdurrehman Alsalehi	36
8	22	Music Classification Using Fourier Transform and Support Vector Machines	Ritesh Ajoodha	41
9	23	A Content-Based Collaborative Filtering Movie Recommendation System using Keywords Extractions	Ritesh Ajoodha	45
10	28	Image De-noising and Edge Segmentation using Bilateral Filtering and Gabor-cut for Edge Representation of a Breast Tumor	Saranyaraj D	51
11	41	PRODUCT RECOMMENDATION USING SENTIMENTAL ANALYSIS	Vaishnavi S	57
12	43	Thermal Imaging of Utility Power Lines: A Review	Farhan Shams	62
13	44	Myeloma, Melanoma, Lung, Breast, Colon and Brain Cancer Detection Using Deep Learning in Web Based Application	Tanjila Farah*; Kazi Soumik Islam ; Sumit Kumar das	66
14	45	An Autonomous Vehicle prototype for Off-Road Applications based on Deep Convolutional Neural Network	Rahmat Ullah*; Ikram Asghar; Mark Griffiths; Gareth Evans; Rory Dennis	72
15	47	Digitalizing The Speed Control Circuit Of Three-Phase Induction Motor Based On Pulse-Width Modulation Using Proteus Software	Ngoc Thien Male Le	78
16	51	Comparative Analysis of Testing Black Hole Attack and Rushing Attack on VANET (Vehicular Ad-Hoc Network) with AOMDV Routing Protocol	Siti Ummi Masruroh*; Yusran Syuja Farghani; Aries Kusdaryono; Andrew Fiade; Rizka Amalia Putri; Luigi Ajeng Pratiwi	84
17	58	Inconsistency Checking of UML Sequence Diagrams and State Machines Using the Structure-Behavior Coalescence Method	Steve haga; Wei-ming Ma*; William Chao	90
18	64	Adoption of Augmented Reality To Enhance Durban University of Technology's Learning Management System	Wappi Francis Djumo ; Shaolin Lee Govender; Sanele Raphael Matha; Timothy T Adeliyi*	96
19	65	A combination of Broyden-Fletcher-Goldfarb-Shanno (BFGS) and bisection method for solving portfolio optimization problems	Krassimira Dr. Stoyanova*	102
20	67	Dynamic Waste Collection Model for Smart Bins In Smart Cities	Mohammad Tayseer Alsharat	105
21	68	Design dual-fuzzy adaptive controller for industrial robotic manipulators	Dinh Van Do	109
22	72	Evolutionary Multi-task Optimization Introducing Task Assignment Based on a Search Degree	Yohei Hazama*; Hitoshi lima	115
23	74	Optimization of mixed-precision iterative refinement using parallelized direct methods	Tomonori Kouya	221
24	77	System Characteristics in Predicting E-Learning Acceptance: An Extended Technology Acceptance Model (TAM) Study	NUR HIDAYAH MD NOH*; Mohd Talmizie Amron; MOHAMAD AMIRUDDIN MOHAMAD	227
25	80	A Global Trend of the Smart Home Research: A Bibliometric Analysis	dicky H Syahchari*; Hardijanto Saroso	133
26	84	Shapelet Selection for Efficient Time Series Classification by Dynamic Time Warping	Hyungseok Yun; Gilseung Ahn; Sun Hur	139

27	85	Building a QoS Testing Framework for Simulating Real-World Network Topologies in a Software-defined Networking Environment	Hyeong Seon Yoo*; William Emmanuel S. Yu	145
28	87	A Robust Plant Leaf Disease Recognition System Using Convolutional Neural Networks	Diponkor Bala*; Mohammed Mynuddin; Mohammad Iqbal Hossain; Mohammad Anwarul Islam; Mohammad Alamgir Hossain; Md. Ibrahim Abdullah	151
29	89	Automated Brain Tumor Classification System using Convolutional Neural Networks from MRI Images	Diponkor Bala*; Mohammad Anwarul Islam; Mohammad Iqbal Hossain; Mohammed Mynuddin; Mohammad Alamgir Hossain; Md. Shamim Hossain	157
30	91	Complementary Technique of Flight Time Compensation for 6.4 Gbps DDR5 Transmission Link on Dense PCB	Chang Fei Yee	163
31	95	Bounded Issues on a Class of Integral Equations with Weakly Singular Kernels	Shihchung Chiang	167
32	96	A Preliminary Study on Handwriting Classification Using Motor Information	Yoko Seki	171
33	97	Predicting Covid-19 cases for 12 countries using Long Short-Term Memory	Pranav Ramesh; Angel Arul Jothi J	177
34	99	Multiple Noise Suppression Based on Simultaneous Learning and Independent Estimation of Amplitude and Phase of Noise	Koki Takenaka; Kenji Ozawa	183
35	100	Impact of green human resource practices on work performance: The mediating role of organizational commitment and employee loyalty and moderating role of green life style	Tayyeba Bashir, Tan Zhongfu, Burhan Sadiq, Nasif R Jaffri, Muhammad W Rana*; Hassan Mahmood	N/A
36	102	Song and Artist Attributes Analysis For Spotify	Sandra Grace	195
37	105	An Empirical Study of Model and APPs Design of the Adoption Ease of Mobile Payments	Muhammad W Rana*; Sufang Zhang, Iqra Hamid	201
38	106	Prioritizing CPEC Energy Projects using AHP and TOPSIS Technique	Muhammad W Rana*; Sufang Zhang, Abbass Butt	207
39	107	Design and Simulation of a Versatile Three-Phase Automatic Change- over Switch	Michael A. Boateng*; Daniel Afriyie; Joel Akorli; Kojo Acquah; Ambrose Dery	213
40	108	Modeling of Landslide Susceptibility Mapping Using State-Of-Art Machine Learning Models	llyas Ahmad Huqqani; Lea Tien Tay*; Junita Mohamad-Saleh	219
41	109	Design and Development of IoT-based SMART Monitoring System for Hydro-Powered Generator	Re-Ann Cristine O Calimpusan	225
42	110	Cost-based Optimal Allocation of Shunt Capacitors in Radial Distribution Networks considering Load Types	Sunday Adeleke Salimon*; Gafari Abiola Adepoju; Isaiah Gbadegesin Adebayo; Ismail Adeyemi Adeyemo; Abiodun Aderemi Baruwa; Ayooluwa Peter Adeagbo	231
43	116	Improved Fake News Detection Method based on Deep Learning and Comparative Analysis with other Machine Learning approaches	Dr. Razib Hayat Khan	237
44	121	Blockchain-based Approach to thwart Replay Attacks targeting Remote Keyless Entry Systems	Issa A.R Djinko; Thabet Kacem*; Anteneh Girma	243
45	122	Improved Automated Essay Grading System Via Natural Language Processing and Deep Learning	Samira Said Ibrahem	249
46	124	Analysis of Acoustic Correlates of Marathi Prosodic Features for Human-Machine Interaction	Trupti Kamlesh Harhare*; Milind S. Shah	256
47	125	The Impact of Voltage Changes Due to Synchronization of Solar Power Plant 618.8 KWp At HKBP Nommensen University	Timbang Pangaribuan	262
48	126	Quality Improvements in the Electrical Design of Typical DC-DC Electronic Power Converter for High-Voltage Applications	King Harold A. Recto*; Miguel Escoto; Noel Hernandez	266
49	129	Supervisory control for surge prevention in a gas compressor station with actuator faults	Nikolaos Kouvakas; Fotis N Koumboulis*; Dimitrios Fragkoulis; Enti Zoto	272
50	132	Analysis of urban area extracted from NDBI and classification approach by using satellite data	Ankush Agarwal*; Shikha Verma	278
51	133		Alexey Shuklin; Danila S Parygin*; Alexander Gurtyakov; Oksana Savina; Nikolay Rashevskiy	282

52	134	A comparative study among swarming intelligence algorithms and subspace based algorithms for high resolution direction of arrival estimation	Nauman Ahmed; Sikandar Khan*; SAJID ALI; Rizwan Ahmed; Rahisham Abd. Rahman; Mamon M. Horoub; Malik Zain Ishaq; Arshad Jamal ; Sadaqat Ali	288
53	135	Review of Power Transmission Line Inspection Robots Moving on Ground Wire	Zehra Karagöz Küçük*; Nazmi Ekren; Mustafa Şahin	294
54	136	Blockchain-based Model for Trading Smart Contracts for Shared Energy Generation in Brazil	Paula Zenni Lodetti*; Beatriz B Cardoso; Luis Gustavo O. B. Ulhoa; Luciano Benvenuti Roncalio; Lucas de Paula A. Pinheiro; Orlando da Silva Santos; Marcos Aurelio Izumida Martins; Diogo V Joao	300
55	137	Federated learning-based UAVs for the diagnosis of Plant Diseases	Fawad Salam Khan, Sikandar Khan, Athar Waseem*, Muhammad Numan Ali Khan, Sajid Ali, Arshad Jamal, Imam Abdulrahman Bin Faisal, Hamid Khan, Rizwan Ahmed	305
56	140	Civil Data Mining using Machine Learning	Zara Nasar*; Shahmin Sharafat; Muhammad Azhar; Syed Waqar Jaffry	311
57	144	Implementation of Matrix Drone Show Using Automatic Path Generator with DJI Tello Drones	Virbora Ny*; Srun Channareth	317
58	145	On the Reliability of Space Modulation Techniques	Omar Hiari*; Raed Mesleh; Neveen Aljanini	322
59	147	Massive MIMO With Few Number of Transmit Antennas: Space Shift Keying–Steiner Triple System	Raed Mesleh*; Omar Hiari; Mohammad Abu Daya	328
60	153	Congestion Control of Healthcare Packet Routing in 5G Edge Computing Networks	Kedir Besher; lan OKidhain; Lucas Wick; Mohammed Ali	333
61	159	Constructing a Cryptocurrency-Price Prediction Model Using Deep Learning	Toai Kim Tran	339
62	161	Novel Scheme for Mutual Authentication to Isolate Sinkhole Attack in Wireless Sensor Networks	Dheeraj Kumar	345
63	167	Cyber security based Multikey Management System in Cloud Environment	Jeyaselvi M; Jayakumar C; Sathya M; JAFAR ALI IBRAHIM SYED MASOOD*; Kalyan Chakravarthy N.S	350
64	169	Leveraging Deep Learning Model for Emergency Situations Detection On Urban Road Using Images From CCTV Cameras	Ngoc Thien Male Le	356
65	172	Energy Efficient Clustering to Improve Lifetime of Wireless Sensor Networks	Syed Mohammad Abbas Zaidi*; Prashant Ahluwalia	361
66	173	Dynamic Evolution of Technical Achievement in China's Provinces	Guochao Wan*; Ahmad Yahya Dawod; somsak chanaim	366
67	177	Estimation of Darkness factor from Low-light Images based on Adaptive Neuro-fuzzy Inferencing Technique	Deepak Rai*; Shyam Rajput	372
68	182	Robust Texture Analysis via Optimal Mass Transport: Application to Medical Images Classification	Zehor Belkhatir*; Aditi Iyer; James Mathews; Maryam Dr. Pouryahya; Saad Nadeem; Joseph Deasy; Aditya Apte; Allen Tannenbaum	378
69	186	Analysis on Stability of IoT Ecosystem Based on Three-Party Evolutionary Game	Kaibin Xie	384
70	187	Development of an IoT based DAQ system for PV monitoring and management	Saeed Ahmad, Mustafa Shakir, Bilal Ahmad, Zain Aslam, Muhammad Qaiser, Sohaib Aslam*	390
71	188	The Mediating Effect of Academic Behaviour towards Mobile Phone Use and Intention for Mobile Learning among University Students	YuenFook Chan*; Nurharani Selamat; Suthagar Narasuman; Priyadarshini Muthukrishnan	396
72	194	BLOCOVID: A blockchain-based COVID-19 digital vaccination certificate verification system	Promise Ricardo Agbedanu*; Faiza Umar Bawah; Vivian Akoto- Adjepong; Nicodemus Songose Awarayi; Isaac Kofi Nti; Samuel Boateng; Peter Nimbe; OWUSU NYARKO-BOATENG	401
73	199	Mixing degree effect in the photodegradation of olive mill wastewater	Mha Albqmi ; Nathalia Basegio-Castellani ; Amani Belaiba; Gassan Hodaifa*	407
74	200	Convergence between technology and education for sustainable development in Latin America.	Tania Morales*; Chabely Figueredo ; Ana Guédez ; Geri Bucheli	411
75	202	Application of Fuzzy Sliding Mode Control Supercapacitor – Battery System in PV Solar connect to Grid	Mai Hoang Nguyen	416
76	204	Hospital-Location Classification and Analysis in the Healthcare Cold Chain using K-means Algorithm	Jirawan Niemsakul; Kasin Ransikarbum*; Duangpun Singkarin	422

77	211	Addressing operational challenges of small and medium enterprises of the logistics industry – Potential for autonomous vehicles	Mpedi Mokonyama; Masike Malatji*; Wilton Mlitwa	428
78	214	Fast Transmit-Phase Optimization and Tracking to Moving Target in Distributed-Antenna Wireless Energy Transfer	Masaaki Fujii*	434
79	216	Design and Implement of REST API for Data Integration	Mohd Kamir Yusof	439
80	217	Evaluating a Game-based and a Web-based User Interface Using Skin Conductivity Signals and Gamers and Non-Gamers Preferences	Andreas Mallas*; Maria Samanta; Michalis Xenos	443
81	221	Time-Series Forecasting of Ethereum Price Using Long Short-Term Memory (LSTM) Networks	Mohammad Samin-Al-Wasee*; Promee Shankar Kundu; Israt Mahzabeen; Tasnim Tamim; Dr. Golam Rabiul Alam	449
82	222	Forensic Timeline Analysis of iOS Devices	Hudan Studiawan*; Tohari Ahmad; Bagus J. Santoso; Baskoro A. Pratomo	455
83	224	A Hybridized Framework for Designing and Evaluating E-Learning Students' Performance in Medical Education	Deborah O Oluwadele*; Yashik Singh; Timothy T Adeliyi	460
84	225	LoRa Transceiver for Load Monitoring and Control System in Microgrids	Ibrahim Mwammenywa*; Dmitry Petrov; Philipp Holle; Ulrich Hilleringmann	466
85	227	Port Scanning Mitigation Strategies for Penetration Testing: Blue Team Perspective	Vadivel Ramasamy; mayukha selvaraj*	471
86	228	Design of an incinerator working on solar PV powered electrolyzer for municipal solid waste management	Osama Majeed Butt*	477
87	229	Inspections and detection system for hotspotsin photovoltaic farms using UAV	Asma Idris Fatani*; Ahlam AlAhdal	483
88	231	Design of an Android-based remotely-accessible system to detect ripeness of dates in palm trees	Tariq Jamil*	489
89	232	Impact of Shunt Reactor Overvoltages Switching in High Voltage System	Mazyed A. Al-Tak*; Mohd Fadzil Ain; Omar Sh Alyozbaky; Prof. Mohamad Kamarol Mohd Jamil USM	493
90	234	PCONet: A Convolutional Neural Network Architecture to Detect Polycystic Ovary Syndrome (PCOS) from Ovarian Ultrasound Images	A.K.M. Salman Hosain*; Md Humaion Kabir Mehedi; Irteza Enan Kabir	499
91	239	Influence of industrial olive mill wastewater pretreatment on the Scenedesmus obliquus growth	Gassan Hodaifa*; Amani Belaiba; Ana Malvis; Mha Albqmi	505
92	240	Interactive Intelligent Exercise System Design for the Elderly	Yung Gi Wu*; Meng Hua Yang; Guan Lin Pan; Bao Hao Shi; Yi Zheng Chen; Jia Hao Chang; Yu Xiang Chiu	509
93	243	Exploring User's Perception of Explainability of Blocked Content in Online Social Network Services	Mashael M. Alsulami	514
94	244	Investigating the Use of Mobile Learning in Saudi Higher Education: The Perspective of Undergraduate Students	Ali Alowayr*	520
95	245	Detection of weak micro-scratches by semantic segmentation	Hong-Thai Nguyen*; Yu-Ming Tsao; Hsiang-Chen Wang	529
96	246	BHGAN: A Hierarchical Graph Network Based on Feature Enhancement	Junjun Zhang*; Zhengyan Cui; Hyun Jun Park; Giseop Noh	533
97	247	A Recommended System with a Solution Architect in Minimizing the Lead Time of Last Mile LPG Distribution in India	Prithvirajan D*; Mathirajan M	538
98	250	Mixed Reality-based Outdoor Training System to Improve Football Player Performance	Jihyung Kim*; Jonghyeon Ka; yelin Lee; Younghak Lee; Sangyeon Park; Wooksung Kim	544
99	251	Waste reduction in production for plasma cutting process by applying the MES system	Khwanchanok Pimpetch*; Khwanchanok Pimpetch; Jongkol Srithorn	547
100	252	A powerful Transfer learning technique for multiclass classification of lung cancer CT images	Ananya Bhattacharjee; R Murugan*; Dr. Tripti Goel; Dr. Shankar K.	551
101	255	Improvement of the latex adhesive production control system based on the concept of Lean Automation	Sathit Rungsawang*; Jongkol Srithorn	557
102	256	Comparative Study of Binary Classifiers for Reducing False Negative Detection of Melanoma in Skin Lesions	Amith Jooravan*; Serendra Reddy; Nelendran N Pillay	563
103	258	Texture Features in Prediction of Bread Edibility	Kavitha R*	569
104	259	Machine Learning Classifiers Based on HoG Features Extracted from Locomotive Neutral Section Images	Christopher Thembinkosi CT Mcineka*; Nelendran N Pillay	575
105	260	Utilizing Monte Carlo Simulation to Determine Value at Risk in the Wireless Telecommunications Industry	dicky H syahchari*; Anggraeni Woro Hapsari	581
106	263	The Effective Zone Routing Protocol Design Using Deep Recurrent Neural Network for The Next Generation Wireless Network	FADLI FAD SIRAIT*	587

107	264	Telemedicine Framework in COVID-19 Pandemic	Faten Imad Ali*; Tariq Emad Ali; Ali Hamad	593
108	265	Experimental study of radio-free communication in the constrained space of vessel using metal surface wave communication	JINWOO KONG*	601
109	268	A Scheme for Transfer of Load between HVDC and HVAC Link	Waheed Aftab Khan, Hafiz Fuad Usman*, Ali Raza, Khuram Abbas, Adnan Yousaf, Manzoor Ellahi	608
110	269	Real-Time Computer Vision for Transportation Safety using Deep Learning and IoT	Neerav Sharma*; Rahul Dev Garg	615
111	270	Fault Analysis of a Ladle Furnace Transformer caused by Switching Transient and Ferroresonance	Virna Onofri*; Thales A. C. Maia	620
112	272	LightFFNet: MDD Prediction on EEG Quantitative Biomarkers	Urvashi Dr Shukla *; Shreeya Garg	626
113	273	A Fractal based Machine Learning Method for Automatic Detection of Epileptic Seizures using EEG	Geetanjali sharma; Amit Mahesh Joshi*	632
114	278	The Alignment between DevOps and Business Outcomes	Tsumbedzo Mukange*; Josef Langerman	636
115	280	A novel beamforming antenna array for 5G and beyond applications	Muhammad Asfar Saeed*; Augustine Nwajana	642
116	281	Design and performance analysis of visible light communication system with noise mitigation	Vikram Maurya; Ravi Kumar Maddila*	646
117	282	Deep Learning Based Binary and Multi-class Classification Comparison for Anomaly Detection	ABDOULAYE DIALLO*; Lionel AFFOGNON; Cherif DIALLO; Eugène C. EZIN	650
118	283	An Autonomous Robotic System for Ground Surface and Subsurface Imaging	Abdurrahman Yilmaz*; Osman Ervan; HAKAN TEMELTAS; Ibrahim Akduman	656
119	284	A Price/Power Weighting Based Linearization Approach With a Battery Management System for an Appliance-scheduling Model	RASMANE BANDE*; Mohammed OUASSAID	662
120	289	Voice Over IP Integration Platform Performance Using EC2 AWS Cloud Service	Posathip Sathaporn ; Woranidtha Krungseanmuang; Vasutorn Chaowalittawin; Thanavit Anuwongpinit; Boonchana Purahong; Isoon Kanjanasurat; Attasit Lasakul ; Chawalit Benjangkaprasert*	668
121	290	Characterization of plain and ZnO coated D-shaped plastic optical fiber sensor of different diameters	Abdul Ali Khan*; Punithavathi Thirunavakkarasu	672
122	291	Simulation-based Learning in Fluid Power Engineering through Line Chat Application	Pornjit Pratumsuwan*	676
123	293	A Cost-Effective Multilayer Authentication Framework for Large- Scale IoT Deployments	Sufyan Almajali*; Thaer Hamad	681
124	296	Image Quality Assessment Methods for Near-Infrared Wildfire Imagery	Zimbini Z Faniso-Mnyaka*; Vusi Skosana; Muhammad Nana; Edwin Magidimisha	687
125	301	Robust Stabilization for a Class of Descriptor Systems under Input Delays: The Attractive Invariant Ellipsoid Approach	RAYMUNDO JUAREZ*; VADIM AZHMYAKOV; MANUEL ALEJANDRO CORRALES; CARMEN BORREGO	693
126	302	Estimation of Mobile Phone Prices with Machine Learning	Ayşenur Kalmaz*; Osman Akın	699
127	303	Importance of effective delegation in a startup or small-scale IT organizations	Tharindu Weerasinghe	706
128	304	A Novel Mechanism to Detect Cooperate Data Leakages via Digital Watermarking	Amalsha Amaratunga; Tharindu Weerasinghe	711
129	306	Design and Implementation of Wearable Artificial Kidney Telemonitoring System	Majid Moghaddam	719
130	307	Closed-Loop Full-Bridge HF Converter Based Electric Three-Wheelers Battery Charger with CC-CV Charging Technique for Extended Battery Life	Abdullah Al Mamun*; Khan Farhan Ibne Faruque,; Iftadul Islam Sakib; Mohammad Rejwan Uddin; Khosru M. Salim	724
131	308	Traffic Congestion Prediction using Deep Convolutional Neural Networks: A Color-Coding Approach	Mirza Fuad Adnan*; Nadim Ahmed; Imrez Ishraque; Md. Sifath Al Amin; Md. Sumit Hasan	729
132	311	A Grid-Tie Microinverter Design Based on Dual-Switch Flyback Topology for Solar PV Application	Abdullah Al Mamun*; Iftadul Islam Sakib; Khan Farhan Ibne Faruque,; Mohammad Rejwan Uddin; Khosru M. Salim	734
133	312	A Deep Learning Framework for the Classification of ECG Signals	Rizwan Qureshi*	739
134	313	A Context Approach to improve Data Anonymization Process	Hassane TAHIR	744
135	314	Shift Invariant Support Vector Machine for Image Classification in Automatic Target Recognition Systems	Ehimwenma S OMOREGBEE*; Mandoye Ndoye; Jesmin Farzana khan	750
136	322	Faults in Microgrids with Windturbines and Photovoltaic system: A Review	Xolani P YOKWANA*; Thapelo Mosetlhe; Adedayo Ademola Yusuff	756
137	323	A Stackelberg Game for Balancing Profits in IoT Ecosystem	Kaibin Xie	761

138	324	Experimentally Fault detection scheme on shading and cracks in PV modules	Xolani P YOKWANA*; Thapelo Mosetlhe; Adedayo Ademola Yusuff	765
139	325	Simple Machine Learning Approach for Liquid Concentration Estimation Employing Fiber Optic Tip Sensor	Nur Najahatul Huda Saris*; Nazirah Mohd Razali; Nurul Ashikin Daud	772
140	326	Optimization of photovoltaic plant capacity with battery storage for injection into main network: Case of Illoulofin solar plant in Benin	SONON M. Kevin*; Patrice Koffi CHETANGNY	776
141	327	Electric Field Numerical Modeling and Simulation of V-Shaped Interdigitated Microelectrodes	Tudor Alexandru Filip; Ina Turcan; Vlad-Andrei A Scarlatache; ALIN DRAGOMIR; Marius Andrei Olariu*; Marius Andrei Olariu	781
142	330	Post-Covid Teaching of Physics Experiments Through Flipped Classroom & Blended Teaching Practice at College	Wen xiaoxia	785
143	331	Introducing a smart monitoring system (PHLIP) for integrated pest management in commercial orchards	Mohammad Zare*; Michael Pflanz; Michael Schirrmann	791
144	333	Implementation of an Intelligent Parking System	Jehangir Arshad, Adnan Yousaf, Ateeq ur Rehman*, Chaudhry Ahmed Ijaz, Sania Habib, Huzaifa Abid, Rao M asif	795
145	334	Automatic Tuberculosis detection in cough patterns using NLP-style cough embeddings	Madhurananda Pahar*; Grant Theron; Thomas Niesler	806
146	339	A Novel Multipurpose Snapshot Hyperspectral Imager used to Verify Security Hologram	Arvind Mukundan*; Hsiang-Chen Wang; Yu Ming Tsao	812
147	344	Efficient Electric Vehicle Charger Based on Wide Band-gap Materials for V2G and G2V.	Saif Ur Rehman*	815
148	351	An intervention strategy for mitigating the prevalence of syntax errors during task exercise engagements	chukwuka victor Obionwu*; Christian Harnisch; Kalu kalu; David Broneske; Gunter Saake	820