

Session 28-BME1
Track Biomedical Engineering 1
Session Chair Rhen Anjerome Bedruz and Jayne Lois San Juan
Zoom Link <https://us02web.zoom.us/j/89288571715?pwd=Z2JyYkptc052MXpBWS9NRnhnSGRzQT09>
Date December 28, 2020

Time	Paper Number	Title
1630-1645	41	Automated Wireless and Portable Measurement of Apnea-Hypopnea Index on Adult Patients with Obstructive Sleep Apnea using Counter Based Algorithm
1645-1700	75	Predicting the Mortality of Female Patients suffering from Myocardial Infarction using Data Mining Methods: A Comparison
1700-1715	76	Eye State Classification Through Analysis of EEG Data Using Deep Learning
1715-1730	82	Pre-detection of the Probable Occurrence of a Cardiovascular Disease Through Data Analysis Using Fuzzy Logic

Session 28-BME2
Track Biomedical Engineering 2
Session Chair Ira Valenzuela and John Carlo Puno
Zoom Link <https://us02web.zoom.us/j/87398190575?pwd=NXRMQ3BBSIjyUXIKK01iQlIWYjVkQT09>
Date December 28, 2020

Time	Paper Number	Title
1630-1645	89	A Single-DOF Haptic Feedback Controller for Robotic-assisted Minimally Invasive Surgery
1645-1700	93	Design and Testing of a Robotic Articulating Laparoscopic Instrument using the Pig Model Simulation Approach
1700-1715	111	Implementation of a Bilateral Teleoperation Haptic Feedback Controls to Robotic Minimally Invasive Surgery
1715-1730	126	Early Stage Diabetes Likelihood Prediction using Artificial Neural Networks

Session 28-BME3
Track Biomedical Engineering 3
Session Chair Robert Kerwin Billones and Jose Martin Maningo
Zoom Link https://us02web.zoom.us/webinar/register/WN_0cIJSLmIQXaBowymsU5AiQ
Date December 28, 2020

Time	Paper Number	Title
1630-1645	127	Design and Analysis of a Robotic Articulating Laparoscopic Instrument
1645-1700	128	Issues and Challenges of Rehabilitation Robots for the Lower Limb and the Importance of Trunk Control Integration
1700-1715	133	Design and Analysis of a Robotic Articulating Laparoscopic Instrument End Effectors
1715-1730	137	Recent Advancements in Robotic Minimally Invasive Surgery: A Review from the Perspective of Robotic Surgery in the Philippines

Session 28-BME4
Track Biomedical Engineering 4
Session Chair Renann Baldovino and Richard Tan ai
Zoom Link <https://us02web.zoom.us/j/89970976954?pwd=RGxldURZMctSakxOdkRKNTI2SHICZz09>
Date December 28, 2020

Time	Paper Number	Title
1630-1645	140	Healthcare Management System with Sales Analytics using Autoregressive Integrated Moving Average and Google Vision
1645-1700	169	Development of a Robotic Platform for Quadraped Gait Investigation
1700-1715	210	An EMG-based Gesture Recognition for Active-assistive Rehabilitation
1715-1730	226	Determination of Non-Proliferative and Proliferative Diabetic Retinopathy through Fundoscopy using Principal Component Analysis

Session 29-1A
Track Energy 1
Session Chair Ronnie Concepcion II and Andres Mayol
Zoom Link <https://us02web.zoom.us/j/86357237934?pwd=RkF5L3EreXhBSFVlc1ZMzJRCeIDZz09>
Date December 29, 2020

Time	Paper Number	Title
0800-0815	2	Impact Study of a Microgrid with Battery Energy Storage System (BESS) and Hybrid Distributed Energy Resources using MATLAB Simulink
0815-0830	10	Simulated Solar Assisted Battery Management System with Fuzzy Temperature Control, Flyback Converter Active Cell Balancing Circuit and Coloumb Countung SoC Estimation Method using MATLAB Simulink
0830-0845	19	Wireless Sensor and Actuator Network-based Power Management System using Raspberry Pi and Image Processing for Smart Classroom
0845-0900	28	Development of a Linear Generator with Spring Mechanism for Vortex Bladeless Wind Turbine
0900-0915	139	IntelliPlugs: IoT-based Smart Plug for Energy Monitoring and Control Through WiFi and GSM
0915-0930	153	Transitional Considerations for Energy Storage Policy Recommendation in the Philippines
0930-0945	158	Energy Management Trends for Sustainability in Agriculture Industry of the Philippines
0945-1000	160	Development of a Savonius Rotor-Driven Hydrokinetic Generator Cube

Session 29-1B
Track Energy 2
Session Chair Ronnie Concepcion II and Andres Mayol
Zoom Link <https://us02web.zoom.us/j/82700057184?pwd=OTFkSWJmMzJOUXozcCtLRzY1hFUT09>
Date December 29, 2020

Time	Paper Number	Title
1015-1030	163	Multi-Machine Transient Stability Study of an IEEE Bus 39 Test Case with Hybrid Distributed Generation using Matlab
1030-1045	192	Design and Construction of a Solar Energy Module for Optimizing Solar Energy Efficiency
1045-1100	200	Taguchi-Based Experimental Investigation of Vortex-Induced Vibration (VIV) Energy Converter under a Controlled Environment
1100-1115	206	Performance Analysis on Monoplane, Biplane, and Contra-Rotating Well's Turbine
1115-1130	208	Design and Installation of a Control System for an Open-Circuit Wind Tunnel
1130-1145	218	Design of a Dye Sensitized Solar Cell (DSSC) Using Grape Skin as a Light Absorbing Material
1145-1200	220	Hybrid Renewable Energy System Model Using HOMER as Support to the Power Crisis in the Philippines
1200-1215	222	Cloud-Based Remote Monitoring System for Photovoltaic Systems with Electrical Load Prioritization

Session 29-2A
Track Machine Vision 1
Session Chair Jay Robert del Rosario and John Carlo Puno
Zoom Link <https://us02web.zoom.us/j/89799952335?pwd=TGM2MGhJVFcwdEh3WkxpY1F4RFZmQT09>
Date December 29, 2020

Time	Paper Number	Title
0800-0815	12	Accuracy Improvement of Determination of Common Maize (Zea mays) Disease Detection using Gray-Level Segmentation and Edge-Detection Technique
0815-0830	21	Three Triangle Method for Face Recognition using Dlib and OpenCV
0830-0845	31	Design of a Python-based Lecture Capture System using Haar Cascade Algorithm with Noise Reduction as Facility for Learner-Centeredness in OBE
0845-0900	38	Detection of Corn Leaf Diseases using Convolutional Neural Network with OpenMP Implementation
0900-0915	39	Development of a Vision Based Parking Monitoring System Using Quadrotor UAV
0915-0930	44	Phytopigments Profiling of Lactuca Sativa Leaf Chloroplast Photosystems via Vision-based Planar Chromatography
0930-0945	58	Determination of Shelled Corn Damages using Colored Image Edge Detection with Convolutional Neural Network
0945-1000	63	Automated Sorter and Grading of Tomatoes using Image Analysis and Deep Learning Techniques

Session 29-2B
Track Machine Vision 2
Session Chair Jay Robert del Rosario and John Carlo Puno
Zoom Link https://us02web.zoom.us/webinar/register/WN_OW0ib6uLQieSAwpwohlcTg
Date December 29, 2020

Time	Paper Number	Title
1015-1030	99	Object Detection as a Technological Adjunct to the Manual Counting Protocol during Surgery
1030-1045	117	Video-Based Gender Profiling on Challenging Camera Viewpoint for Restaurant Data Analytics
1045-1100	124	Auto-Fit: A Human-Machine Collaboration Feature for Fitting Bounding Box Annotations
1100-1115	135	ICML: Machine Learning-Based Transistor-Level Integrated Circuit Layout Error Classification using Color Analysis and Segmentation
1115-1130	193	Variety Classification of Lactuca Sativa Seeds Using Single-Kernel RGB Images and Spectro-Textural-Morphological Feature-Based Machine Learning
1130-1145	203	Valgus and Varus Disease Detection using Image Processing
1145-1200	204	Machine Vision-Based Prediction of Lettuce Phytomorphological Descriptors Using Deep Learning Networks
1200-1215	228	Milled Rice Grain Grading Using Raspberry Pi with Image Processing and Support Vector Machines with Adaptive Boosting

Session 29-3A
Track Environment and Biosystems 1
Session Chair Ira Valenzuela and Marvin Jade Genoguin
Zoom Link <https://us02web.zoom.us/j/85826845404?pwd=eIRSWDlvSDdWMDBMMIM4QU1FQnZSUT09>
Date December 29, 2020

Time	Paper Number	Title
0800-0815	17	Effects of Varying Blue and Red-light Ratio as Artificial Lighting on Yerba Buena in Indoor Farming Using a Reconfigurable System
0815-0830	18	Evapotranspiration-Based for Crop Cultivation with Deficit Irrigation Scheme
0830-0845	66	Projection of Water Demand and Sensitivity analysis of Predictors affecting Household usage in Urban Areas using Artificial Neural Network
0845-0900	71	Development of Waste Management System Using the Concept of 'Basura Advantage Points' through Artificial Neural Network
0900-0915	97	An Algorithm for Automatic Zoning based on African Swine Fever (ASF) Control Protocol
0915-0930	102	Design of a Soft Gripper Mold for an End Effector in the Automation of Sugarcane Packaging
0930-0945	105	Design of a Fuzzy System for Detecting Estrus from Intravaginal Temperature, pH and Resistance
0945-1000	113	A Decision Tree-based Classification and Detection of Diseased Pine and Oak Trees from Satellite Imagery

Session 29-3B
Track Environment and Biosystems 2
Session Chair Ira Valenzuela and Marvin Jade Genoguin
Zoom Link <https://us02web.zoom.us/j/81984890031?pwd=RGRDMHpFc1lXlYkMOTTE0RC9vUndGdz09>
Date December 29, 2020

Time	Paper Number	Title
1015-1030	138	Growth Stage Identification for Cherry Tomato using Image Processing Techniques
1030-1045	154	Trend Forecasting of Computer Vision Application in Aquaponic Cropping Systems Industry
1045-1100	156	Arabidopsis Tracker: A Centroid-Based Vegetation Localization Model for Automatic Leaf Canopy Phenotyping in Multiple-Pot Cultivation System
1100-1115	159	PlantOne: A PH and Moisture Based Soil Plant Identifier
1115-1130	165	Biofiltration for Recirculating Aquaponics Systems: A Review
1130-1145	166	Trends in Nanotechnology in the Philippines and Laos Agricultural Industry
1145-1200	171	Greenroof Irrigation Using Evapotranspiration for Alfalfa and Basil
1200-1215	183	A Hybrid Data Acquisition Model using Artificial Intelligence and IoT Messaging Protocol for Precision Farming

Session 29-4A
Track Machine Learning 1
Session Chair Rhen Anjerome Bedruz and Jonnel Alejandrino
Zoom Link <https://us02web.zoom.us/j/82845469415?pwd=WVZaSVRrTGpud3VXdjVNBGJYVjYk5DUT09>
Date December 29, 2020

Time	Paper Number	Title
0800-0815	14	Cloud-based Signature Validation Using CNN Inception-ResNet Architecture
0815-0830	20	Characterization and Classification of Coffee Bean Types using Support Vector Machine
0830-0845	24	Bimodal Hand Vein Recognition System using Support Vector Machine
0845-0900	29	Characterization of Mango Pulp Weevil Pupa using Acoustics and Machine Learning
0900-0915	45	The Analysis of Staphylococcus aureus Bacteria after Exposure Electromagnetic Radiation via Support Vector Machine
0915-0930	48	Implementation of Neural Network Control in a Nonlinear Plant using MATLAB
0930-0945	84	Development of a Hybrid Machine Learning Model for Apple (Malus domestica) Health Detection and Disease Classification
0945-1000	95	Sensitivity Analysis and Strength Prediction using Artificial Neural Network for a Fly Ash – Based Geopolymer Concrete with Polyethylene Terephthalate

Session 29-4B
Track Machine Learning 2
Session Chair Rhen Anjerome Bedruz and Jonnel Alejandrino
Zoom Link <https://us02web.zoom.us/j/81183436537?pwd=OGtmeDRkRmdNUU5ESEpmVlh4U1I5Zz09>
Date December 29, 2020

Time	Paper Number	Title
1015-1030	162	Automatic Beatmap Generating Rhythm Game Using Music Information Retrieval With Machine Learning For Genre Detection
1030-1045	164	Classifying Adult Mango Pulp Weevil using Support Vector Machine
1045-1100	186	Text- Based Gender Classification of Twitter Data using Naive Bayes and SVM Algorithm
1100-1115	205	Congestion Detection in Wireless Sensor Networks based on Artificial Neural Network and Support Vector Machine
1115-1130	209	Development of a Smart Cooling System Using Artificial Neural Network
1130-1145	219	Grading and Profiling of Coffee Beans for International Standards Using Integrated Image Processing Algorithms and Back-Propagation Neural Network
1145-1200	223	Classification of Honey as Genuine or Fake via Artificial Neural Network using Gradient Descent Backpropagation Algorithm
1200-1215	225	Detection of Staleness in Raw Chicken Meat due to Salmonella spp. And Escherichia Coli Bacteria using Metal Oxide Gas Sensor with Support Vector Machine

Session 29-5A
Track Intelligent Systems 1
Session Chair Jose Martin Maningo and Ana Antoniette Illahi
Zoom Link <https://us02web.zoom.us/j/83880643348?pwd=WjBiRkdoVnNkZ3VjQVFTdE9nUmgxUT09>
Date December 29, 2020

Time	Paper Number	Title
0800-0815	33	Multiprocess Implementation of DNA Pre-alignment Filtering using the Bit Matrix Algorithm
0815-0830	59	Android Application-Based Controller for Air Conditioning Unit
0830-0845	78	Deep Imitation Learning for Safe Indoor Autonomous Micro Aerial Vehicle Navigation
0845-0900	98	OCR based Document Archiving and Indexing using PyTesseract - A Record Management System for DSWD Caraga, Philippines
0900-0915	116	A People Counting System for Use in CCTV Cameras in Retail
0915-0930	120	Design of Adaptive Neuro-Fuzzy Inference System (ANFIS) Model on Assessment of Effluent to Class C Fresh Surface Waters
0930-0945	125	AutoTrack: Interactive Visual Object Tracking for Efficient Object Annotations
0945-1000	143	UV Tracking and Booking with Accident Reporting and Speed Alert Logs using Android Smartphone

Session 29-5B
Track Intelligent Systems 2
Session Chair Jose Martin Maningo and Ana Antoniette Illahi
Zoom Link <https://us02web.zoom.us/j/88180776918?pwd=a2c3NlFlidjZlYlFoK0g4NU1RSIJkdz09>
Date December 29, 2020

Time	Paper Number	Title
1015-1030	147	Truesight Obstacle Detection and Indoor Assistive Navigation Tool for the Visually Impaired using Android Mobile Phone and Image Analysis
1030-1045	149	Minimizing Car Thief Incidence in the Philippines through An Alternative Car Staller System
1045-1100	151	Stochastic Prediction of Small-Town Lottery Numbers Using User-Based Collaborative Filtering
1100-1115	161	Development of Electricity Theft Detector with GSM Module and Alarm System
1115-1130	180	Eyes at Sea: Tracking System of Rescue Boats in Polillo Group of Islands
1130-1145	189	Artificial Intelligence: The Technology Adoption and Impact in the Philippines
1145-1200	212	Development of Mobile Robot for HVAC Component Monitoring Using Infrared Thermography
1200-1215	213	A Peak Demand Reduction Scheme of Air- Conditioning (AC) Loads Using a New Binary Particle Swarm Optimization (NBPSO) Algorithm

Session 29-6A
Track Electronics Engineering 1
Session Chair Edison Roxas and Reagan Galvez
Zoom Link <https://us02web.zoom.us/j/88551724413?pwd=ekVNU3M5RXJGQ0IXTVRBQIFVTIE3UT09>
Date December 29, 2020

Time	Paper Number	Title
1330-1345	57	A Non-Contact Testing Method for a Switch-mode Power Transformer in an SMPS using Radial Basis Function Neural Network to Analyze Magnetic Flux Leakage Density
1345-1400	67	Modulated Audible Frequency and Electric Shock Repellent for Rock Dove and Pigeon with Monitoring System
1400-1415	77	Comparative Study on using On-Off and PID-based SCR Controller on Heat Treatment of AISI 4140 Steel
1415-1430	122	A 90 nm Static CMOS Technology Gate-Level Integrated Circuit Layout Classification and Error Detection Using EfficientNet Model
1430-1445	155	Operational Transconductance Amplifier Design Integration for MEMS Accelerometer Application in 65nm CMOS Technology
1445-1500	175	A 300-Watt Half-Bridge LLC Resonant Converter Design with Synchronous Rectification
1500-1515	176	Housekeeping and Auxiliary Quasi-Resonant Flyback Converter Design for a 350W Power Supply
1515-1530	179	Design Optimization and Controller Modelling of an ASIC Controlled Single Phase Critical Conduction Mode Boost PFC Using Simplis

Session 29-6B
Track Electronics Engineering 2
Session Chair Edison Roxas and Reagan Galvez
Zoom Link <https://us02web.zoom.us/j/82804219015?pwd=enpCcnVNVGIBZkhVdElzckM0N1VPQT09>
Date December 29, 2020

Time	Paper Number	Title
1545-1600	181	Design of 0.6 V Sub-Threshold Operational Amplifier in 40 nm Process
1600-1615	194	A Design of 4.5W Closed Loop Boost Converter with 45V, 100mA Output for Low Power Applications
1615-1630	216	Performance Evaluation Of A Low Order LMS Based Adaptive Feedback Canceller For Public Address System
1630-1645	217	Design and Modelling of LLCL Filter for Real-time Harmonic Mitigation with Actual Prototype Implementation for Monitoring of Signal Variation using Fast Fourier Transform and NI MyRIO

Session 29-7A
Track Instrumentation and Control 1
Session Chair Jason Rogelio and Ana Antoniette Illahi
Zoom Link <https://us02web.zoom.us/j/84080025018?pwd=cVkrSFY5YTAxN1R6VlcZDM2YlpXdz09>
Date December 29, 2020

Time	Paper Number	Title
1330-1345	7	Design and Implementation of Phasor Measurement Unit with IOT Technology
1345-1400	13	Altitude Monitoring of Multi-Floor Building Using a Barometric Altimeter Device and Self-Adaptive Algorithm
1400-1415	16	Development of Wearable Wireless Heating E-Textile using Conductive Thread for Thermotherapy
1415-1430	23	Digital Goniometer Using Raspberry Pi Through Image Processing by OpenCV Algorithm
1430-1445	46	The Effect of Various Ultra High Frequency Radiation on the Evolution of the Staphylococcus aureus
1445-1500	54	Design of Picoammeter Device Interface Boards for the CTS-5010 Automatic Test Equipment
1500-1515	55	Test Time Reduction for Nonlinearity Error Testing of Digital Potentiometer
1515-1530	60	Non-Invasive Sweetness Classification for Citrus Maxima

Session 29-7B
Track Instrumentation and Control 2
Session Chair Jason Rogelio and Ana Antoniette Illahi
Zoom Link <https://us02web.zoom.us/j/86842018676?pwd=d0p4eWxJWIZYVldoYUhhOEN4NUkUT09>
Date December 29, 2020

Time	Paper Number	Title
1545-1600	79	Development of Evapotranspiration-based Irrigation System using Hargreaves-Samani Equation for Public Park Application
1600-1615	129	Development of a Calibrated Arduino-based Multiple Aquatic Parameter Sensor Device for Evaluating pH, Turbidity, Conductivity and Temperature
1615-1630	195	Air Quality Prediction using Recurrent Air Quality Predictor with Ensemble Learning
1630-1645	199	Finite Element Analysis and Utilization of MCKibben Artificial Pneumatic Muscles for a Robotic Lower Leg Model
1645-1700	211	Application-based cluster and Connectivity-specific routing protocol for Smart Monitoring System

Session 29-8A
Track Vincent Jan Almero and Ira Valenzuela
Session Chair Special Topics in Civil Engineering 1
Zoom Link <https://us02web.zoom.us/j/87066920716?pwd=UTJVWHVhYjFldU9iVnBPZkRhZz09>
Date December 29, 2020

Time	Paper Number	Title
1330-1345	36	Sanitary Landfill's Groundwater Contamination Detection Based on Machine Learning Algorithms
1345-1400	37	Sanitary Landfill's Carbon Dioxide Concentration Model Based on Machine Learning Algorithms
1400-1415	61	Assessment of Seismic Vulnerability of Public Schools in Metro Manila within 5 Km from the West Valley Fault Line using Rapid Visual Survey (RVS)
1415-1430	72	Bond Behavior of Rebars Coated with Corrosion Inhibitor in Reinforced Concrete
1430-1445	81	Implementation of a Strategic Project Integration Management System using Visual Studio: A Case Study for a Construction Company in the Philippines
1445-1500	92	A Study of Macroseismic Intensity Prediction using Regression of Philippine Earthquakes
1500-1515	106	Decision Support System in Environmental, Health and Safety (DSS-EHS) Management Systems
1515-1530	145	Bandilyo App: A Disaster Risk Reduction Monitoring and Incident Reporting System with Geolocation and SMS Technology

Session 29-8B
Track Vincent Jan Almero and Ira Valenzuela
Session Chair Special Topics in Civil Engineering 2
Zoom Link <https://us02web.zoom.us/j/87539443337?pwd=RmY2NXpReFZhU0taVWp3VzNBcGRqZz09>
Date December 29, 2020

Time	Paper Number	Title
1545-1600	177	Diffusion of Robotics in the Philippines: Impact of Policies, Laws, R&D, and Word of Mouth
1600-1615	185	Vibration-based Structural Health Monitoring System for Bridges using ADXL345 Accelerometer with MATLAB Standalone Application
1615-1630	187	Road Surface Quality Assessment using Fast-Fourier Transform
1630-1645	190	Linear Frequency Modulated Continuous Wave LFM-CW Short-Range Radar for Detecting Subsurface Water Content with Deep Learning
1645-1700	207	Structural Health Fuzzy Classification of Bridge based on Subjective and Objective Inspections

Session 29-9
Track Transport Engineering and Technologies
Session Chair Reagan Galvez and John Carlo Puno
Zoom Link <https://us02web.zoom.us/j/82679902347?pwd=QmpvSHhoVW95Z2JKR3JZSEVoVFJnZz09>
Date December 29, 2020

Time	Paper Number	Title
1330-1345	32	A life cycle analysis of commercial aircraft fleets
1345-1400	56	Route Optimization for Multiple Forklifts Using D* Lite Algorithm
1400-1415	96	Philippine License Plate Localization Using Genetic Algorithm and Feature Extraction
1415-1430	103	Approximate Optimization Model on Routing Sequence of Cargo Truck Operations through Manila Truck Routes using Genetic Algorithm
1430-1445	104	Route Mapping with Adjacent Proximity Places Inventory using Rest-Based Web Services
1445-1500	109	Vehicular Movement Tracking by Fuzzy C-means Clustering of Optical Flow Vectors
1500-1515	191	Investigating Data Dissemination in Urban Cities by Employing Empirical Mobility Traces
1515-1530	201	Topology Optimization and Strength Performance Analysis of a Lower Control Arm Sedan Suspension Part

Session 29-10
Track Materials Engineering
Session Chair Reagan Galvez and John Carlo Puno
Zoom Link <https://us02web.zoom.us/j/86338964138?pwd=Z0VqK3pUbWhiQTdtOTZSME1ERUdHZz09>
Date December 29, 2020

Time	Paper Number	Title
1545-1600	6	Detection of Bovine Mastitis Milk through Somatic Cell Count using Electrical Conductivity Property
1600-1615	80	Development of Wireless Heating E-Textile Belt for with Four Quadrant Control
1615-1630	108	A Review on Existing pH Detection and Monitoring Technology for In-Vivo Diagnostic Applications
1630-1645	173	Residual Current Circuit Implemented in Complementary Metal Oxide Semiconductor for Residual Magnetism Correction
1645-1700	196	Characterization of the Tensile Strength of FDM-Printed Parts Made from Polylactic Acid Filament using 33 Full-Factorial Design of Experiment
1700-1715	214	Performance Evaluation of 3D-Printed Airfoils at Low Reynolds Numbers

Session 29-11
Track Educational Technologies
Session Chair Robert Kerwin Billones and Jason Espanola
Zoom Link <https://us02web.zoom.us/j/89734310530?pwd=Y1AySzZSZZhDUEQveUxIMExzOW8wdz09>
Date December 29, 2020

Time	Paper Number	Title
1330-1345	26	Virtual Reality Experience Promoting Accident-Free Educational Tour for Primary Level Students via Local Area Network Unity-Arduino Application
1345-1400	35	English Treebank of Mapúa University Smart Interactive Voice Response System
1400-1415	50	K- means Clustering of Online Learning Profiles of Higher Education Teachers and Students Amid Covid19 Pandemic
1415-1430	73	Manufacturing Design Thinkers in Higher Education Institutions: The Use of Design Thinking Curriculum in the Education Landscape
1430-1445	100	Faculty Facial Recognition Using Deep Learning a tool for Smart Academic Monitoring
1445-1500	118	Corona: A Side-Scrolling Video Game-Preliminary Study
1500-1515	121	Geospatial Analysis of SICS Students Readiness for Online Learning
1515-1530	142	e-voting: School-Based Registration and Voting System

Session 29-12
Track Communications Engineering
Session Chair Robert Kerwin Billones and Jason Espanola
Zoom Link <https://us02web.zoom.us/j/89731573363?pwd=SlErSHhUYzI5RHZORWhUOHJGc3Vwdz09>
Date December 29, 2020

Time	Paper Number	Title
1545-1600	47	Design of a Helical Antenna for Handheld Transceivers
1600-1615	65	Near Field Communication-Based Laundry Payment System with Real-Time Monitoring via Android App
1615-1630	85	Design of accordance to avert Complex Area protocol with Packet-Over-SONET Line in IXP
1630-1645	130	Development of Cloud-Based Monitoring of Abiotic Factors in Aquaponics using ESP32 and Internet of Things
1645-1700	178	Shipborne Vessel Monitoring System using Automatic Identification System Packet Encapsulation and LoRa Packet Propagation
1700-1715	184	Smart Irrigation Control System Using Wireless Sensor Network via Internet-Of-Things