



# PARALLEL SESSION SCHEDULE (Title)

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**5<sup>th</sup> APRIL 2021**

# Room A – 5<sup>th</sup> April 2021 (Session 1)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                      |
|---------------|--------------------------------------------------------------------------------------------|
| 11:00 – 11:15 | Detection of Void Areas on Single Pad X-Ray Images Using Deep Convolutional Neural Network |
| 11:15 - 11:30 | Detection of Void Regions in Single Pad X-Ray Images Using Image Processing Approach       |
| 11:30 - 11:45 | Performance Analysis of Voice Activity Detector in Presence of Non-Stationary Noise        |
| 11:45 - 12:00 | A Computer Vision Based Assessment System for Electrical Installation Training             |
| 12:00 - 12:15 | Object Detection with Few-Shot Learning and Data                                           |
| 12:15 - 12:30 | A Hybrid Deep Learning Model for Face Sketch Recognition                                   |
| 12:30 - 12:45 | Dorsal Hand Vein Segmentation Using Vein-Generative Adversarial Network (V-GAN) Model      |
| 12:45 - 13:00 | Study of VGG-19 Depth in Transfer Learning for COVID-19 X-Ray Image Classification         |

# Room B – 5<sup>th</sup> April 2021 (Session 1)

## Robotics, Control, Mechatronics and Automation(RCMA)

| Time          | Title                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Mathematical Modeling of Self Balancing Robot and Hardware Implementation                           |
| 11:15 - 11:30 | Semi-Automatic 3D Metal Deposition Machine Based on Wire Arc Additive Manufacturing (WAAM)          |
| 11:30 - 11:45 | Enhance Robotic Process Automation Using a Rule-Based Approach                                      |
| 11:45 - 12:00 | An Automatic Light Control System for Camera Barcode Reader                                         |
| 12:00 - 12:15 | Kalman Filter-Based Fault Detection Scheme for Antenna Azimuth                                      |
| 12:15 - 12:30 | Experimentation of Magnetorheological Piston Damper                                                 |
| 12:30 - 12:45 | Survey on Meta-Heuristic Algorithms for Solving Vehicle Route Problems in a Waste Collection System |
| 12:45 - 1:00  | UAV Control System with Time to Collision (TTC) Prediction Capability                               |

# Room C – 5<sup>th</sup> April 2021 (Session 1)

## Electrical Power, Energy and Industrial Applications(EEI)

| Time          | Title                                                                                                                           |
|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Modelling of High Frequency Coreless Planar Transformer with TWR Hexagonal Winding                                              |
| 11:15 - 11:30 | Model Predictive Control for Induction Motor Fed by 5-Level Cascaded H-Bridge Inverter                                          |
| 11:30 - 11:45 | New Level Increasing Technique for Symmetrical Multilevel Inverter with Reduced Number of Components and Total Standing Voltage |
| 11:45 - 12:00 | Breakdown Voltage of PFAE Containing Non-Bridged and Bridged Cellulose Fiber Under Lightning Impulse Stress                     |
| 12:00 - 12:15 | Effect of Harmonics Current on the Performance of Current                                                                       |
| 12:15 - 12:30 | Electrical Tree Inception Voltage and Propagation in XLPE Containing Silica Nanofiller                                          |
| 12:30 - 12:45 | Effect of Pressure Drop on the Performance in a Multi-Stage Fluidization System                                                 |

# Room D – 5<sup>th</sup> April 2021 (Session 1)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Under Insulation Microwave Non-Destructive Testing Using Dual-Ridges Open-Ended Rectangular Waveguide |
| 11:15 - 11:30 | Embedded Facial Mapping: Tracking Facial Expressions with Limited Hardware                            |
| 11:30 - 11:45 | A Comparative Analysis of Euclidean-Support Vector Machine                                            |
| 11:45 - 12:00 | Deep Learning for Diabetic Retinopathy (DR) Classifier                                                |
| 12:00 - 12:15 | Respiratory Anomalies & Diseases Detection with Deep Learning                                         |
| 12:15 - 12:30 | Development of COVID-19 Prediction Models from Chest X-Ray Using Transfer Learning                    |
| 12:30 - 12:45 | Smart Traffic System: Detection of the Emergency Clearance                                            |



# Room E – 5<sup>th</sup> April 2021 (Session 1)

## Telecommunication Systems and Applications(TSA)

| Time          | Title                                                                                                                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11:15 | Combined Role of Material Composition and Thickness of Activated Carbon/Natural Rubber Composite Microwave Absorbers in the Absorption of Within the 1 - 18 GHz Frequency Range: A Review |
| 11:15 - 11:30 | Assessment of Monthly Rain Fade in the Equatorial Region at C & Ku-Band Using MEASAT-3 Satellite Links                                                                                    |
| 11:30 - 11:45 | Analysis of the Proposed Boundary Conditions for the Conductive Material and Substrate Thickness of Air-Substrate Microstrip Patch Antenna via Graphical Verification Method              |
| 11:45 - 12:00 | Bandwidth Enhancement of Branch-Line Crossover Using Etching Slot Technique for Butler Matrix                                                                                             |
| 12:00 - 12:15 | The Three-Stage Non-Blocking Switch for Elastic Optical Networks                                                                                                                          |
| 12:15 - 12:30 | PAPR Reduction OF OFDM System Using Partial Transmit Sequence (PTS) and Firefly Algorithm (FA)                                                                                            |
| 12:30 - 12:45 | An Improvement on Partial Transmit Sequence (PTS) for PAPR Reduction in OFDM System                                                                                                       |
| 12:45 - 1:00  | A Compact MIMO Antenna for Wideband Circularly Polarized mmWave Communications                                                                                                            |

# Room A – 5<sup>th</sup> April 2021 (Session 2)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------------|
| 15:00 - 15:15 | Analysis of Plant Stress Response Using Hyperspectral Imaging and Kernel Ridge Regression                          |
| 15:15 - 15:30 | Behavioural Study of Constrained Convolutional Neural Network on Image Splicing Classification of Various Datasets |
| 15:30 - 15:45 | Passive Acoustic Monitoring (PAM) of Snapping Shrimp Sound Based on Blind Source Separation (BSS) Technique        |
| 15:45 - 16:00 | Fruit Ripeness Classification with Few-Shot Learning                                                               |
| 16:00 - 16:15 | Sorted Uniform Local Binary Patterns                                                                               |
| 16:15 - 16:30 | Lung Nodules Detection Using Inverse Surface Adaptive Thresholding (ISAT) and Artificial Neural Network            |
| 16:30 - 16:45 | Comparison Between K-Nearest Neighbor (KNN) and Decision Tree (DT) Classifier for Glandular Components             |
| 16:45 - 17:00 | Analysis on Clustering Based Method for Diabetic Retinopathy Using Color Information                               |



# Room B – 5<sup>th</sup> April 2021 (Session 2)

## Robotics, Control, Mechatronics and Automation(RCMA)

| Time          | Title                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------|
| 15:00 - 15:15 | Automatic Detection of Cerebral Ischemia (Cerebral Occlusion) by Using Frame Differencing Method                      |
| 15:15 - 15.30 | Safety Device for Runners (SDR) Using Arduino Microcontroller                                                         |
| 15:30 - 15:45 | A New Concept of Inter-Robot Interaction: An Application on NAO Humanoid Robot                                        |
| 15:45 - 16:00 | Optimization of PD Controller Based on ARMAX Model for Vapor Compression Refrigeration System Using R600a Refrigerant |
| 16:00 - 16:15 | Response Time Reduction of Internet of Things (IoT) Based Flood Alert System                                          |
| 16:15 - 16:30 | Interactive System for Maintenance of Automatic Test Equipment on the IC Production Floor                             |
| 16:30 - 16:45 | Holonomic Mobile Robot Planners: Performance Analysis                                                                 |
| 16:45 - 17:00 | Inchworm-Inspired Semi-Autonomous Pole-Climbing Robot                                                                 |

# Room C – 5<sup>th</sup> April 2021 (Session 2)

## Intelligence Systems(IS)

| Time          | Title                                                                                                    |
|---------------|----------------------------------------------------------------------------------------------------------|
| 15:00 - 15:15 | Unraveling the Rubik's Cube with Autodidactic Iteration Algorithm                                        |
| 15:15 - 15:30 | AFSA-SLNO Variants for Enhanced Global Optimization                                                      |
| 15:30 - 15:45 | Effects of the Number of Network's Order Used in a Higher Order Neural Network on Time Series Prediction |
| 15:45 - 16:00 | Apex Frame Spotting Using Convolutional Neural Networks with Continuous Labeling                         |
| 16:00 - 16:15 | Improved K-Means Clustering for Initial Center Selection in Training Radial Basis Function Networks      |
| 16:15 - 16:30 | An Innovative TRIZ Insight on the Pilot Test Run Issue in NPI Through Intelligent System                 |
| 16:30 - 16:45 | AFCGA as Preferable Intelligent Tuning Method to Reduce the Vibration of Suspended Handle-Power Tool     |
| 16:45 - 17:00 | A Comparative Study of Sine Cosine Optimizer and Its Variants for Engineering Design Problems            |

# Room D – 5<sup>th</sup> April 2021 (Session 2)

## Computer and Information Technology(CIT)

| Time          | Title                                                                                                     |
|---------------|-----------------------------------------------------------------------------------------------------------|
| 15:00 - 15:15 | A Review on Tools and Techniques for Visualizing Software Requirement Traceability                        |
| 15:15 - 15:30 | Handling Illusive Text in Document to Improve Accuracy of Plagiarism Detection Algorithm                  |
| 15:30 - 15:45 | Security - Enhanced MQTT Platform for Green Internet of Things (IoT) Communication                        |
| 15:45 - 16:00 | Analysis of Smart IOT Portal Based on Advanced RISC Machines (ARM) Processor for Fanless Heat Maintenance |
| 16:00 - 16:15 | Internet of Things with RFID Based Microcontroller for Monitoring System                                  |
| 16:15 - 16:30 | Functional Requirements for Talent Management System - A Case of Performing Arts Freelancers in Malaysia  |

# Room E – 5<sup>th</sup> April 2021 (Session 2)

## Telecommunication Systems and Applications(TSA)

| Time          | Title                                                                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15:00 - 15:15 | Simple Compact UWB Vivaldi Antenna                                                                                                                                 |
| 15:15 - 15:30 | Effects of Integration Time on Rain Rate Distribution for Microwave Link Design                                                                                    |
| 15:30 - 15:45 | Nearly Zero Ultra-Flattened Dispersion in Octagonal Photonic Crystal Fiber                                                                                         |
| 15:45 - 16:00 | Design A RFID Tag Antenna for Wearable Application System                                                                                                          |
| 16:00 - 16:15 | Backlobe Reduction of Air Substrate Circular Patch Antenna for 5G Applications                                                                                     |
| 16:15 - 16:30 | 2D Physical Modelling of Double $\delta$ -Doped pHEMT with Tensile InAlAs Barrier and Compressive InGaAs Channel                                                   |
| 16:30 - 16:45 | Development of 2D Indoor Monitoring and Positioning System (IMPS) Using Received Signal Strength Indicator (RSSI) Assisted by Internet of Things (IoT) Application |
| 16:45 - 17:00 | Handling Mobility with Network Virtualization in IoT WAVE Context                                                                                                  |

**6<sup>th</sup> APRIL 2021**

# Room A – 6<sup>th</sup> April 2021 (SESSION 3)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------------|
| 8:45 - 9:00   | Implementation of Fuzzy Gamma Adaptive Histogram Equalization for Penicillium and Aspergillus Species                    |
| 9:00 - 9:15   | Multi-View Human Action Recognition System Based on OpenPose and KNN Classifier                                          |
| 9:15 - 9:30   | Malaysian Sign Language Translator for Mobile Application                                                                |
| 9:30 - 9:45   | Convolutional Neural Network Architecture for Detecting Facemask and Social Distancing: A Preventive Measure for COVID19 |
| 9:45 - 10:00  | Automatic Detection of Hotspots on Electric Motors Using Thermal Imaging                                                 |
| 10:00 - 10:15 | Correlation Between Multiple Sclerosis Lesion Areas in Brain Magnetic Resonance Imaging and Patient's Disability         |
| 10:15 - 10:30 | A Densely Interconnected Convolutional Neural Network-Based Approach to Identify COVID-19 from Chest X-Ray Images        |
| 10:30 - 10:45 | UAV Based Mapping for Uniciti Alam Campus                                                                                |

# Room B – 6<sup>th</sup> April 2021 (SESSION 3)

## Robotics, Control, Mechatronics and Automation(RCMA)

| Time          | Title                                                                                                |
|---------------|------------------------------------------------------------------------------------------------------|
| 8:45 - 9:00   | Development of Four-Legged Klann Linkage Walking Robot                                               |
| 9:00 - 9:15   | Steel Pipe Climbing Robot Development                                                                |
| 9:15 - 9:30   | Pattern Clustering Approach for Activity Recognition in Smart Homes                                  |
| 9:30 - 9:45   | Real-Time Vibration Monitoring Using MEMS Vibration Sensors                                          |
| 9:45 - 10:00  | Design Hyperbaric Chamber Based Wave Energy Conversion System with Pelton Turbine Control Strategies |
| 10:00 - 10:15 | Altitude and Attitude Control of a Quadcopter Based on Neuro-Fuzzy Controller                        |
| 10:15 - 10:30 | Latest Trends Integration of Gas Leakage and Fire Detection Using IOT: A Survey                      |



# Room C – 6<sup>th</sup> April 2021 (Session 3)

## Electrical Power, Energy and Industrial Applications(EEI)

| Time          | Title                                                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 8:45 - 9:00   | Performance Analysis of a Unified Power Quality Compensator to Mitigate Power Quality Problems                                    |
| 9:00 - 9:15   | Model Predictive Control of Single-Phase Simplified Split-Source Inverter                                                         |
| 9:15 - 9:30   | Partial Discharge Activity Under Influence of Metal Particle Number in Mineral Oil and PFAE                                       |
| 9:30 - 9:45   | A Maximum Power Point Tracking Using Levy Particle Swarm                                                                          |
| 9:45 - 10:00  | Analytical Subdomain Model for Double-Stator Permanent Magnet Synchronous Machine                                                 |
| 10:00 - 10:15 | An Improved Non-Dominated Sorting Genetic Algorithm III with Grey Relational Analysis Decision Making for DG Placement and Sizing |
| 10:15 - 10:30 | Electrical Treeing Characteristics of XLPE Material Containing Alumina Nano-Filler                                                |
| 10:30 - 10:45 | PQ Control Strategy in Single-Phase Inverter for Grid-Connected Photovoltaic Energy System Under Linear and Nonlinear Loads       |

# Room D – 6<sup>th</sup> April 2021 (Session 3)

## Electronic Design and Applications(EDA)

| Time          | Title                                                                                                               |
|---------------|---------------------------------------------------------------------------------------------------------------------|
| 8:45 - 9:00   | Optimizing RAM Testing Method for Test Time Saving Using Automatic Test Equipment                                   |
| 9:00 - 9:15   | Novel FPGA-Optimized Stochastic Number Generator for Stochastic Computing                                           |
| 9:15 - 9:30   | Effect of Gate Dielectric Thickness on the Performance of Top-Down ZnO Nanowire Field-Effect Transistors            |
| 9:30 - 9:45   | A 5 GHZ Current Controlled Oscillator with Active Inductor                                                          |
| 9:45 - 10:00  | Speeding Parasitic-Extraction Stage in Layout-Change-Order Validation Cycle Through Net-Tracing and Layout Trimming |
| 10:00 - 10:15 | A 10-Bit Partial Binary Tree Network DAC Utilizing Op-Amp as an Output Current Magnifier                            |
| 10:15 - 10:30 | Solar Powered Automatic Dissolved Oxygen Optimiser for Tumpat Caged Fish Farm Kelantan                              |
| 10:30 - 10:45 | Fabrication of High Performance High Electron Mobility Transistor Design Based on III-V Compound Semiconductor      |

# Room E – 6<sup>th</sup> April 2021 (Session 3)

## Telecommunication Systems and Applications(TSA)

| Time          | Title                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------|
| 8:45 - 9:00   | Bowtie Antenna Design with Lumped Element Modification for Partial Discharge Measurement Applications       |
| 9:00 - 9:15   | 1.8 V, 8-Bit Integrated ADC and DAC in CMOS 180 nm for Bluetooth Low-Energy (BLE) System                    |
| 9:15 - 9:30   | High Efficiency CMOS Power Amplifier with Integrated Driver Based APD Linearizer                            |
| 9:30 - 9:45   | An On-Chip Integrated CMOS Ring Mixer-Balun-VCO Achieving IIP3 of 11.2 dBm and Phase Noise of -117.2 dBc/Hz |
| 9:45 - 10:00  | A Review of Process for Wearable Communication Antenna                                                      |
| 10:00 - 10:15 | Wireless Sensor Network's Agricultural Monitoring System Using TDMA Based Wireless Communication            |

# Room A – 6<sup>th</sup> April 2021 (SESSION 4)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                                           |
|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Development of Morphological Image Processing Learning Module for Mobile Application                                            |
| 11:15 - 11:30 | A Deep Learning Approach for Detecting Medical Face Mask on Human Faces in Response to Covid19                                  |
| 11:30 - 11:45 | Segmentation of Diabetic Retinopathy Using Entropy-Based Thresholding - A Review                                                |
| 11:45 - 12:00 | Enhanced the Face Recognition Accuracy by Using Histogram of Oriented Gradients (HOG) in Pre-Processing Approach                |
| 12:00 - 12:15 | YOLO Based Deep Learning Network for Metal Surface Inspection System                                                            |
| 12:15 - 12:30 | Survey on Loss Functions for Face Recognition                                                                                   |
| 12:30 - 12:45 | Impact of Similarity Measure Functions on the Performance of Coherent Filtering Detection                                       |
| 12:45 - 13:00 | Convolutional Neural Network with Hidden Markov Model to Identify Non-Severe Traumatic Brain Injury from Electroencephalography |

# Room B – 6<sup>th</sup> April 2021 (SESSION 4)

## Robotics, Control, Mechatronics and Automation(RCMA)

| Time          | Title                                                                                                              |
|---------------|--------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | A Fast and Flexible Turret Based Automated Vision Inspection (AVI) to Inspect 6 Sides of Small Discrete Components |
| 11:15 - 11:30 | Autonomous Grass Lawn Weeding Mobile Robot Based on Image Processing Using LabVIEW                                 |
| 11:30 - 11:45 | A Review of Recent Mobile Robot Application Using V-SLAM in GNSS-Denied Environment                                |
| 11:45 - 12:00 | CNN-Based Off-Board Computation for Real-Time Object Detection and Tracking Using A Drone                          |
| 12:00 - 12:15 | Point Cloud Generation with Low-Cost Camera for Visual SLAM                                                        |
| 12:15 - 12:30 | Fast Initial Response for Auxiliary Information Based EWMA Chart for the Process Mean                              |
| 12:30 - 12:45 | Design Safety Training Using Extended Reality Tracking Tools in Semiconductor Fabrication Laboratory Furnace       |
| 12:45 - 13:00 | Sensing and Control of Autonomous Driverless Car on Road (SCAD)                                                    |

# Room C – 6<sup>th</sup> April 2021 (Session 4)

## Intelligence Systems(IS)

| Time          | Title                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Optimal Selection of Parallel Atrous Convolutions for MobileNet V3                                                                 |
| 11:15 - 11:30 | Deploying Fuzzy Rough Set and Artificial Immune System Algorithms for Air Quality Prediction                                       |
| 11:30 - 11:45 | Modeling 2-D Solitary Hunting Behaviour of Chimpanzee                                                                              |
| 11:45 - 12:00 | Comparison Between Genetic Algorithm (GA) and Particle Swarm Optimization (PSO) for Hardware Software Partition in Embedded System |
| 12:00 - 12:15 | Optimal Design of SMPMSM Using Genetic Algorithm Based on Finite Element Model                                                     |

# Room D – 6<sup>th</sup> April 2021 (Session 4)

## Biomedical Engineering and Applications (BEA)

| Time          | Title                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Photonic Crystal Fiber-Based Surface Plasmon Biosensor for Breast Cancer Detection                                                 |
| 11:15 - 11:30 | Microwave Dielectric Properties and Absorption Analysis for Seashells Through Transmission-Reflection Method Using Waveguides      |
| 11:30 - 11:45 | Performance Evaluation of Optic Disc Detection Using Faster RCNN with Alexnet, Resnet50 and Vgg19 Convolutional Neural Networks    |
| 11:45 - 12:00 | Effect of Image Thresholding on the Homogenized Properties of Trabecular Bone Model                                                |
| 12:00 - 12:15 | Non-Contact Heartbeat Detection Using Viterbi Algorithm Based on Distribution of Difference of Two-Adjacent R-R Intervals          |
| 12:15 - 12:30 | User Interface Design for Upper Limb Spasticity Smart Diagnosis System                                                             |
| 12:30 – 12:45 | Hyperparameter Selection in Deep Learning Model for Classification of Philadelphia-Chromosome Negative Myeloproliferative Neoplasm |



# Room E – 6<sup>th</sup> April 2021 (Session 4)

## Electrical Power, Energy and Industrial Applications(EEI)

| Time          | Title                                                                                                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11:00 – 11.15 | Numerical Analysis of the Effect of Pore Size Toward the Performance of Solid Oxide Fuel Cell                                                                                     |
| 11:15 - 11:30 | Power Quality Enhancement in Stand-Alone PV System Using Leaky LMS Adaptive Algorithm                                                                                             |
| 11:30 - 11:45 | Agrivoltaic Systems: An Innovative Approach to Combine Agricultural Production and Solar Photovoltaic System                                                                      |
| 11:45 - 12:00 | Fitness-Inspired for Mobile Charger                                                                                                                                               |
| 12:00 - 12:15 | Determination of Solar Penetration Through Multi-Objective Optimisation Framework                                                                                                 |
| 12:15 - 12:30 | Reliability Impacts of ICT Failures on Synchrophasor Based Dynamic Thermal Rating System                                                                                          |
| 12:30 - 12:45 | Comparison of Total Harmonic Distortion and Common Mode Voltage in Cascaded H-Bridge Multilevel Inverter with Switching Angles Derived Using Non-Iterative Calculation Techniques |
| 12:45 - 13:00 | Comparison of GA and PSO Optimized Switching Angles for 3-Phase 15-Level Asymmetrical Multilevel Inverter                                                                         |

# Room A – 6<sup>th</sup> April 2021 (SESSION 5)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                                                             |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:30 - 14:45 | Fast and Memory Efficient Acoustic Identification System Based on Diagonal I-Vector Extraction                                                    |
| 14:45 - 15:00 | Boundary Accuracy of Interactive Segmentation Methods on Various Distorted Images                                                                 |
| 15:00 - 15:15 | Remote Spoken Arabic Digits Recognition Using CNN                                                                                                 |
| 15:15 - 15:30 | DE1-SoC FPGA Support for Human Posture Detection System                                                                                           |
| 15:30 - 15:45 | Apply Deep Learning on Chest X-Rays Images for COVID-19 Disease Detection by Using Transfer Learning                                              |
| 15:45 - 16:00 | Comparative Analysis of Image Enhancement Techniques Based on Fundus Image for Diabetic Retinopathy                                               |
| 16:00 - 16:15 | Improved of Morphological Features Visualization for Diabetic Retinopathy Disease by Using Image Enhancement Technique and Optimization Algorithm |
| 16:15 - 16:30 | Analysis on Single-Image Super-Resolution (SISR) Using Dictionary Learning and Sparse Representation Algorithm                                    |

# Room B – 6<sup>th</sup> April 2021 (Session 5)

## Vision, Image and Signal Processing(VIS)

| Time          | Title                                                                                                                         |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|
| 14:30 - 14:45 | Automatic Honey Bee Queen Presence Detection on Beehive Frames Using Machine Learning                                         |
| 14:45 - 15:00 | Investigation on Face Alignment Factor for Generating Forensic Sketch Using Deep Convolutional Generative Adversarial Network |
| 15:00 - 15:15 | Review on Generative Adversarial Neural Networks (GAN) in Text-To-Image Synthesis                                             |
| 15:15 - 15:30 | Real-Time Mobile Application for Handwritten Digit Recognition Using MobileNet                                                |
| 15:30 - 15:45 | Small Object Detection Based on SSD-ResNeXt101                                                                                |
| 15:45 - 16:00 | GSM Based Bank Vault Surveillance Process with Finger Print and Password and Preventative Action Against Unauthorized Person  |
| 16:00 - 16:15 | Defects Detection Using Complementary Split Ring Resonator                                                                    |
| 16:15 - 16:30 | Fined-Grained Vehicle Classification in Urban Traffic Scenario Using Deep Learning                                            |

# Room C – 6<sup>th</sup> April 2021 (Session 5) Combined

| Time          | Title                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------|
| 14:30 - 14:45 | Development of Drowning Detection Algorithm for USV                                                   |
| 14:45 - 15:00 | Development of Standstill Monitoring System (SMS) for Inhouse Agriculture Product Application         |
| 15:00 - 15:15 | Hold Violation Fix with Physical Awareness to Minimize Impact on Congestion                           |
| 15:15 - 15:30 | Robotic Exoskeleton Safety Compliance, Evaluation Development Tool and Application                    |
| 15:30 - 15:45 | DenseNet with Atrous Spatial Pyramid Pooling for Skin Lesion Classification                           |
| 15:45 - 16:00 | A Review on Deep Convolutional Neural Network Architecture for Medical Image Segmentation             |
| 16:00 - 16:15 | Segmentation of Tumour Regions for Tubule Formation Assessment on Breast Cancer Histopathology Images |



**THANK YOU!**