GOLD AWARD

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
1	A144	Kembara Dietitian: An innovative, sustainable and complete edutainment video package on the lifestyle modification for hypertension	Universiti Teknologi MARA	Education (EDU)	
2	A09	MAGCELLANT: An engineered magnetic flocculant for palm oil wastewater treatment	Universiti Teknologi Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
3	A125	IoT Based Remote Monitoring for Inventory System	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
4	A143	SINAA.CO: The Future Sustainable Disposable Blood Pressure Cuff Cover	Universiti Islam Antarabangsa Malaysia	Biotechnology, Health and Chemicals (BHC)	
5	A55	AgroTrack: Blockchain-based With Smart Contract, IoT and Machine Learning in Agro-Food Supply Chain	Universiti Sultan Zainal Abidin	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
		Category: DEGREE / MASTER / PHD (A)			
6	A39	Welcome to Wellnessocity Mobile Applications	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🥇
7	A129	IoT Smart Plant Kit	Universiti Teknologi PETRONAS	Agriculture, Environmental and Renewable Energy (ARE)	🥇
8	A93	Remote Access Robotics Laboratory Platform	University College TATI	Education (EDU)	🥇
9	A134	MARA/MAJU	IPG KAMPUS DATO' RAZALI ISMAIL	Pandemic Innovation, Education (PIE)	🥇
10	A87	The Potential Use of Papaya and Banana Peels as Substrate to Enhance the Pigment Production of Chryseobacterium sp. Strain Isolated from Tentacle Holothuria (Lessonothuria) pardalis	Universiti Tun Hussein Onn Malaysia	Biotechnology, Health and Chemicals (BHC)	🥇
11	A86	IFITKIDS MODULE	UNIVERSITI PENDIDIKAN SULTAN IDRIS, IPG KAMPUS PENDIDIKAN TEKNIK	Education (EDU)	🥇

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
12	A53	A Bluetooth and Machine Vision Controlled Auto Guided Vehicle	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
13	A15	BISINDO (Indonesian Sign Language) Recognition on Android Smartphone Based on Deep Learning	Universitas Muhammadiyah Surakarta	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
14	A83	Robotic Assist Device for Home Rehabilitation (EZ GLOVE)	Universiti Malaysia Perlis	Biotechnology, Health and Chemicals (BHC)	
15	A88	Waze Me	UNIVERSITI SAINS ISLAM MALAYSIA	Education (EDU)	
16	A131	IoT-Based Monitoring System for Indoor Air Quality using Thingsboard	UNIVERSITI SAINS ISLAM MALAYSIA	Pandemic Innovation, Education (PIE)	
17	A70	Arduino Based Water Changing System for Aquaponic Farming	Universiti Malaysia Sabah	Agriculture, Environmental and Renewable Energy (ARE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
18	A162	Smart Pedestrian Crossing in Campus with Internet of Thing	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
19	A68	Analysis of Photovoltaic System Efficiency with Cooling System	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
20	A145	Optimal Sizing of a Stand-Alone Photovoltaic System Using Particle Swarm Optimization	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
21	A43	Medical Image Segmentation Software Using Atrous Convolution Deep Learning Technology	University Malaysia Kelantan	Biotechnology, Health and Chemicals (BHC)	
22	A33	Application of the health belief model in breast cancer awareness video for promoting breast self-examination practice	Universiti Sains Malaysia	Education (EDU)	
23	A25	NatuGrow Aqua	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
24	A42	IoT Based Health Monitoring and Tracking System for Self Quarantine of Covid-19 Patients	Universiti Tun Hussein Onn Malaysia	Pandemic Innovation, Education (PIE)	
25	A95	AFTi Photocatalyst for Industrial Wastewater Treatment	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
26	A172	What If I Can Control Your Move: Human-to-Human Interface IoT Portable Rehabilitation Device	University of Technology Sarawak	Biotechnology, Health and Chemicals (BHC)	
27	A89	A Real-Time Web-based Facial Recognition Attendance System	Universiti Utara Malaysia	Education (EDU)	
28	A78	Hypertension Pre-Assessment Monitoring System	Universiti Pertahanan Nasional Malaysia	Pandemic Innovation, Education (PIE)	
29	A58	IOT-enabled Weather Station To Forecast PV Power	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
30	A79	Islamic Mobile Game : Ramadan Spirit	Universiti Kuala Lumpur Malaysian Institute of Information Technology	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
31	A137	Mini First Responder Drone (Web-Based Drone Controller System)	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
32	A141	MYpatch: Antibacterial Efficacy of Healing Patch from E. spiralis on Skin Bacterial Infection	Universiti Malaysia Terengganu	Biotechnology, Health and Chemicals (BHC)	
33	A132	Komik Kesihatan Kanak-kanak (KomiKa): Siri Hipertensi Educational Guide to Prevent Hypertension	Universiti Teknologi MARA Selangor Branch, Puncak Alam Campus, Selangor, Malaysia	Education (EDU)	
34	A166	Tajwid Board	Institut Pendidikan Guru Kampus Dato' Razali Ismail	Education (EDU)	
35	A114	Digital Literacy Skills and Information Security Behaviour in The Remote Working Environment to Cultivate Employees Information Security Culture	Universiti Teknologi Mara (UiTM)	Pandemic Innovation, Education (PIE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
36	A69	AP'DENT	Universiti Sains Malaysia	Biotechnology, Health and Chemicals (BHC)	🏅
37	A60	A Development of Mobile Application of Terengganu Dive and Islands	Universiti Malaysia Terengganu	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🏅
38	A13	Low-Cost Traffic Analysis System using Raspberry Pi	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🏅
39	A139	MOBILE ESTATE PLANNING FOR DIGITAL ASSETS	Universiti Utara Malaysia (UUM)	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🏅
40	A24	RuBin Smart Waste Management for Smart City	Universiti Teknologi MARA (UITM) Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🏅
41	A152	Semi Automated Strabismus Detection System	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	🏅

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
42	A161	Smart Home Device: A Smart IoT Distribution Board with Fault Detection and Normalizing Purposes	University of Technology Sarawak	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
43	A122	Huffaz Circle System	Universiti Malaysia Terengganu	Education (EDU)	
44	A63	P'LEARN JEUX: An Electronic Physics Board Game	Universiti Sains Islam Malaysia	Education (EDU)	
45	A11	A Cloth Folding Machine Application	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
46	A127	IoT Car Parking System Model (STLK IoT)	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
47	A157	Modelling a Smart Parking Management System (SPMS) based on Integrated IoT	Manipal International University	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
48	A61	Activated Carbon From Watermelon Rinds	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
49	A31	EntZ - A Metasearch Entertainment Search Service Platform	Universiti Teknologi MARA Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

SILVER AWARD

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
1	A45	Travex (Mobile Ticketing Services for Bus, Train, Ferry and Flight)	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
2	A156	Sizing of a Stand-Alone Photovoltaic Powered Fertigation System	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
3	A44	MIMISHA AR Collection	Universiti Teknologi Mara (UITM) Shah Alam)	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
4	A120	GEMPAQ APPS : Let's Quit Smoking	Universiti Malaya	Education (EDU)	
5	A118	Exam Admission Slip Management System Using Face Recognition	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
6	A160	Smart Health Card and University Health Centre (PKU) Application	Universiti Tun Hussein Onn Malaysia	Pandemic Innovation, Education (PIE)	
7	A17	Carbent (Carbon Black Adsorbent) The New Solution For Water Pollutants Issues	Universiti Teknologi Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
8	A119	EyeZy	Universiti Sains Islam Malaysia	Biotechnology, Health and Chemicals (BHC)	
9	A109	Development of Cyst Detection System for Liver Ultrasound Images	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
10	A76	Face Authentication Safe Box for Multiple Users	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
11	A169	Vehicle Detection and Counting using Deep Learning	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
12	A128	IoT Smart Locker	Universiti Malaysia Sabah	Pandemic Innovation, Education (PIE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
13	A41	Intelligent-Medical Update Systematic Application (i-Medusa)	UNIVERSITI TEKNOLOGI MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
14	A115	Enhanced TAPS Software with Flipped Classroom Approach	Universiti Tunku Abdul Rahman	Education (EDU)	
15	A167	Autonomous Person-Following Telepresence Robot using Deep Learning Yolo	Universiti Sains Islam Malaysia (USIM)	Pandemic Innovation, Education (PIE)	
16	A133	Development of Crowd Control and Tracing for Indoor Facility	Universiti Tun Hussein Onn Malaysia	Pandemic Innovation, Education (PIE)	
17	A96	AIGuard: An Intelligent Security Guard Post System	Universiti Teknikal Malaysia Melaka	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
18	A32	A Study on Detecting Organic and Heavy Metal Contaminants in Water Using Low-Cost Ultraviolet-Visible Spectroscopy for Irrigation System	Universiti Sains Islam Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
19	A149	Prediction of The Optimum Photovoltaic Output Based on Cell Temperature and Solar Irradiation	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	

#	Code	Title	Affiliation	Sub-theme	Medal

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
20	A84	Self-Powered LED System Using Carbon-Based Nanofluid Photothermoelectric Storage	Universiti Malaysia Sabah	Agriculture, Environmental and Renewable Energy (ARE)	
21	A108	Development of Computer Aided Monitoring System for Alzheimer's Disease based on MRI Images	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
22	A136	MentAllay	International Islamic University Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
23	A81	Outlet Entrance S.O.P (Standard Operating Procedure) System	Universiti Teknologi MARA Cawangan Pulau Pinang	Pandemic Innovation, Education (PIE)	
24	A170	Rice husk biomass generated eco-enzyme as an effective non-chemical-based surface sterilizer	Manipal International University	Biotechnology, Health and Chemicals (BHC)	
25	A40	SchoolApps: Attendance and Timetable Application for School	Universiti Teknologi MARA	Education (EDU)	
26	A08	Portable Wireless Hotspot using UAV	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
		Category: DEGREE / MASTER / PHD (A)			
27	A14	INFORMATIONAL SERVICE DEVELOPMENT OF BUS SCHEDULE (BUSSIN APPLICATION)	Universiti Teknologi MARA Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
28	A126	IoT Based Smart Electronic Door For Home Security	Universiti Malaysia Sabah (UMS)	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
29	A82	PID Speed Controller Of 12v Dc Motor Using STM32 NUCLEO-F411RE Card Utilization	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
30	A173	3DAreality	Universiti Teknologi MARA	Education (EDU)	
31	A50	TreatPlan	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
32	A75	Eye Blink Alarm System for Elderly Abuse Prevention	UCSI University	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
33	A171	Web-Based Master Student Project Evaluation and Management System	Universiti Utara Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
34	A117	Evaluation of different synthesis method towards the morphology, crystal structure and photocatalytic performance of TiO2	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
35	A142	Smart Bi-Car	Universiti Sains Islam Malaysia	Automotive, Transportation and Industrial Design (AID)	
36	A130	IoT-based Extension Cord	Universiti Teknologi Malaysia (SPACE)	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
37	A148	Prediction of Photovoltaic Daily Energy Production Using Artificial Neural Network with Different Sets of Inputs	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
38	A98	Aplikasi Android Pengimbas Kod QR Untuk Sistem Tiket Tren	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
39	A105	Cost-Effective Arduino-Based Rfid Automated Cage Door and Pet Tagging with Gps Tracker using Peer-To-Peer Lora Wan	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
40	A72	Automatic Dry Handwash Using Fog-based System to Save Water	UNIVERSITI MALAYSIA SABAH	Pandemic Innovation, Education (PIE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
41	A113	Development of Solar Powered Portable Mini NFT Aquaponics Educational Kits	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
42	A104	Convolution Neural Network Model For Oil Palm Ripeness Classification	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
43	A146	Optimization Of Mini Hydro Power Plant Design Using Particle Swarm Optimization Algorithm	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
44	A16	Blockchain-Based Certificate Verification Using Smart Contract	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
45	A151	Residential College Attendance System With Facial Recognition And Temperature Measurement For Covid-19	Universiti Tun Hussein Onn Malaysia	Pandemic Innovation, Education (PIE)	
46	A121	BPA Detector: Bisphenol A in H2O Detector	Universiti Malaysia Terengganu	Biotechnology, Health and Chemicals (BHC)	
47	A34	Carry On	UiTM Bandaraya Melaka	Education (EDU)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					

#	Code	Title	Affiliation	Sub-theme	Medal
48	A77	H-Configuration Modular Rotor PMFSM for Passenger Drone	Universiti Tun Hussein Onn Malaysia	ICT, Multimedia and Telecommunications , Electrical and Electronic (IME)	(silver medal)
49	A71	Asthma Health Risk Assessment System	Universiti Pertahanan Nasional Malaysia	Pandemic Innovation, Education (PIE)	(silver medal)
50	A92	Xiphias Phishing Simulator	UNIVERSITI PUTRA MALAYSIA	Education (EDU)	(silver medal)
51	A153	Sistem Permohonan Aktiviti Sukarelawan (UPNMVolunteer)	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications , Electrical and Electronic (IME)	(silver medal)
52	A163	Smart Water Detector Using IoT To Monitor The Quality and Water Level at River	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	(silver medal)
53	A29	Designing An Automatic Identification System (AIS) Network For Marine Traffic Detection	Universiti Sains Islam Malaysia	Automotive, Transportation and Industrial Design (AID)	(silver medal)
54	A20	Islamic Crypto Token - The World First Islamic Pure Gold Token	Universiti Tun Hussien Onn Malaysia	ICT, Multimedia and Telecommunications , Electrical and Electronic (IME)	(silver medal)

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)
55	A65	Sustainable Concrete For Construction	Universiti Tun Hussein Onn Malaysia	Building, Construction and Materials (BCM)	
56	A116	Enhancement of the Electrical and Optical Characteristics of Laser Annealed ITO/Ag/ITO Multilayer Films for Solar Cells Applications	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
57	A164	Spinner Shuttlecock Holder	Institut Pendidikan Guru Kampus Pendidikan Teknik	Education (EDU)	
58	A124	IoT Based Photovoltaic-Thermoelectric Generator (PV-TEG) Hybrid Monitoring System	Universiti Tun Hussien Onn Malaysia (UTHM)	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
59	A135	MegaAirPowerBank: The Context of TAM Model	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
60	A94	Accurate Service Equipment	Insitut Pendidikan Guru Kampus Pendidikan Teknik	Manufacturing Process, Machines and Equipment (MPE)	
61	A80	Sediment: EDCs pollution marker before and after the event of Covid-19	Universiti Malaysia Terengganu	Pandemic Innovation, Education (PIE)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
62	A62	Carbon Fiber For Consumer Product	Universiti Tun Hussein Onn Malaysia	Manufacturing Process, Machines and Equipment (MPE)	
63	A165	Sustainable Natural Architectural Design for Sand Dune Restoration as Coastal Protection at the Beach that Prone to Seasonal Storms	Universiti Malaysia Terengganu	Agriculture, Environmental and Renewable Energy (ARE)	
64	A27	DREBAR Mobile Application	UiTM SHAH ALAM	Automotive, Transportation and Industrial Design (AID)	
65	A37	Grocery Shopping Kiosk (Shop&Go)	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
66	A52	Shopharma an Online Pharmacy	Universiti Teknologi Mara	Biotechnology, Health and Chemicals (BHC)	
67	A26	Future Implementation of E-Toll in Malaysia	Universiti Teknologi MARA Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
68	A111	Development of Graphical User Interface for Analysing Induction Motor Current Frequency Spectrum	Universiti Tun Hussein Onn Malaysia	Manufacturing Process, Machines and Equipment (MPE)	

BRONZE AWARD

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
1	A47	STARRY (Makeup and Skincare Application)	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
2	A46	Smart Kettle	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
3	A67	SuperGo	Universiti Teknikal Malaysia Melaka	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
4	A48	Teruna Mini Market Application	Universiti Teknologi MARA (UiTM) Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
5	A51	Smart Cart	Universiti Teknologi MARA	Manufacturing Process, Machines and Equipment (MPE)	

#	Code	Title	Affiliation	Sub-theme	Medal
		Category: DEGREE / MASTER / PHD (A)			
6	A103	Continuous Data Collection of Under Extrusion in FDM 3D Printers for Deep-Learning Dataset	Universiti Tun Hussein Onn Malaysia	Manufacturing Process, Machines and Equipment (MPE)	
7	A74	Covid-19 Home Surveillance For Self-Quarantine Monitoring System Using Iot	Universiti Tun Hussein Onn Malaysia	Pandemic Innovation, Education (PIE)	
8	A73	Banana fruit classification using convolutional neural network	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
9	A106	Design and Power System Analysis of Large Scale Solar for 30 MW	Universiti Tun Hussein Onn Malaysia	Agriculture, Environmental and Renewable Energy (ARE)	
10	A138	Mitochondrial Genome of Holothuria (Merthensiothuria) leucospilota Provides Useful Genetic Data and Future Conservation of Holothurians in Malaysia	Universiti Tun Hussein Onn Malaysia	Biotechnology, Health and Chemicals (BHC)	
11	A38	Hologram And Robotic Food Ordering System (KAMAx Foodie)	Universiti Teknologi MARA Shah Alam	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
Category: DEGREE / MASTER / PHD (A)					
12	A155	Sistem Visual Analisis Sentimen Pengelasan Penilaian Penggunaan Dadah Dalam Ubat	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
13	A158	Smart Chopper Composting System (SMo Composter)	Universiti Tun Hussein Onn Malaysia dan Universiti Malaysia Kelantan	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
14	A21	MAGKEY	UiTM Bandaraya Melaka	Automotive, Transportation and Industrial Design (AID)	
15	A159	Smart Farming	Universiti Pertahanan Nasional Malaysia (UPNM)	Agriculture, Environmental and Renewable Energy (ARE)	
16	A154	Sistem Visual Analisis Sentimen bagi Pengelasan Polariti Coronavirus Tweet	Universiti Pertahanan Nasional Malaysia	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	
17	A30	Smart Fan	Universiti Teknologi MARA	ICT, Multimedia and Telecommunications, Electrical and Electronic (IME)	

#	Code	Title	Affiliation	Sub-theme	Medal
		Category: DEGREE / MASTER / PHD (A)			
18	A66	Transparent Wood For Weathering Resistance	Universiti Tun Hussein Onn Malaysia	Manufacturing Process, Machines and Equipment (MPE)	
19	A100	Gamification Learning Approach: Fostering Interest in Learning among Indigenous Students	Universiti Teknologi Mara Uitm Kampus Puncak Perdana	Education (EDU)	