



HUMANIZING INNOVATION

RICES 2021 AWARDS ANNOUNCEMENT

SPECIAL AWARDS	
1	A1019 REAL TIME DISTORTION CLASSIFICATION AND RANKING IN LAPAROSCOPIC VIDEOS
2	A4021 LEFT AND RIGHT BRAIN BALANCING APPLICATION WITH EEG NEUROFEEDBACK SYSTEM
3	A2043 SURROUND SENSING-BASED WATER WAVE DETECTOR FOR BUOY
GOLD AWARDS	
1	A1016 PERFORMANCE ENHANCEMENT OF ROUTING PROTOCOL FOR QUALITY OF SERVICE SUPPORT IN VEHICULAR AD HOC NETWORKS (VANETS)
2	A1018 PROGNOSTIC REPORTING SYSTEM FOR HORMONE RECEPTOR TESTING IN BREAST CARCINOMA PATIENTS
3	A1019 REAL TIME DISTORTION CLASSIFICATION AND RANKING IN LAPAROSCOPIC VIDEOS
4	A1021 ROF - A FRAMEWORK TO AUTO GENERATE REQUIREMENTS SPECIFICATION
5	A1023 SmartHealthCard: BLOCKCHAIN & TOURISM POST COVID-19
6	A2002 AUTOMATIC DATA ACQUISITION SYSTEM FOR FINGERPRINTING BASED INDOOR POSITIONING
7	A2004 DEEP LEARNING-BASED PREDICTION MODEL TO REDUCE GRAIN DAMAGE AND ENERGY WASTAGE IN AGROINDUSTRY
8	A2006 DESIGN OF IOT HEALTH AND SOCIAL DISTANCING MONITORING SYSTEM
9	A2008 DESIGN OF TRANSFERRED ELECTRON DEVICES (TED) FOR THz APPLICATIONS
10	A2010 DEVELOPMENT AND INVESTIGATION OF SMART PARKING SYSTEM BASED INTERNET OF THINGS TECHNOLOGY
11	A2014 DYNAMIC INDOOR POSITIONING USING DEEP BELIEF NETWORK AND WI-FI FINGERPRINTING
12	A2016 EFFICIENT SPECTRUM UTILIZATION ALGORITHM BASED DISTANCE OF 4G/5G D2D WIRELESS NETWORKS
13	A2017 ENERGY-EFFICIENT INTERFERENCE MANAGEMENT TECHNIQUES FOR MULTI-CELL MULTI-TIER HETNETS
14	A2018 ENERGY-EFFICIENT MANUFACTURING PRODUCTION SCHEDULING FOR COST AND PEAK LOAD MINIMIZATION
15	A2020 ENHANCEMENT OF INTERFERENCE REDUCTION TECHNIQUES FOR FEMTOCELL NETWORKS
16	A2022 ESS-IOT- THE SMART WASTE MANAGEMENT SYSTEM FOR GENERAL HOUSEHOLD
17	A2023 GREEN ZnO NANOPARTICLES FOR DYE DECOLORISATION
18	A2028 METAMATERIAL INSPIRED ANTENNA FOR 5G COMMUNICATION TECHNOLOGIES
19	A2032 ON THE IMPACT OF CASSAVA STARCH AS BINDER TO SLOW-RELEASE UREA FERTILIZER

20	A2034 REHABILITATION USING BIOFEEDBACK SYSTEM
21	A2035 RESOURCE ALLOCATION USING SIMULATED ANNEALING (SA) FOR NON-ORTHOGONAL MULTIPLE ACCESS (NOMA)-BASED 5G NETWORKS
22	A2036 SCALABLE COATING PROCESS OF AgNPs-SILICONE ON COTTON FABRIC FOR DEVELOPING HYDROPHOBIC AND ANTIMICROBIAL PROPERTIES
23	A2037 SECURE AND ENERGY-EFFICIENT SYSTEM FOR MOSQUE BUILDINGS USING SWARM INTELLIGENCE APPROACH
24	A2039 SELF-OPTIMIZATION HANDOVER APPROACH FOR 5G HETEROGENEOUS NETWORKS
25	A2043 SURROUND SENSING-BASED WATER WAVE DETECTOR FOR BUOY
26	A4016 FORMULATION OF A LEGAL FRAMEWORK FOR MACHINE-READABLE SMART CONTRACTS
27	A4021 LEFT AND RIGHT BRAIN BALANCING APPLICATION WITH EEG NEUROFEEDBACK SYSTEM
28	A4026 MODELLING OF WELL-BEING INDEX WITH MINDFULNESS FOR B40 AND M40 HOUSEHOLDS IN MALAYSIA
29	A4027 ONLINE YOUTH VOLUNTEERISM: AN MMU EXPERIENCE
30	B010 PM TEPI
31	B016 WASTEWATER TREATMENT SYSTEM WITH TiO ₂ EMBEDDED 3-D PRINTED STRUCTURE
SILVER AWARDS	
1	A1001 A MACHINE LEARNING APPROACH TO IDENTIFY PURCHASING PATTERNS FOR ONLINE PURCHASERS
2	A1002 A SEAMLESS MOBILITY FOR VEHICLE TO VEHICLE COMMUNICATION
3	A1004 AIR POLLUTANT INDEX (API) FORECASTING IN MALAYSIA: DATA FLATTENING WITH MACHINE LEARNING
4	A1005 AIR QUALITY MONITORING TOOL FOR PASSENGER VEHICLES
5	A1007 CUSTOMER CHURN PREDICTION FOR TELECOMMUNICATION INDUSTRY: A MALAYSIAN CASE STUDY
6	A1008 DriveSAFE: DRIVER PROFILER USING MACHINE LEARNING AND SMARTPHONES
7	A1009 FEATURE FUSION OF 2.5D FACE RECOGNITION USING EXTREME LEARNING MACHINE
8	A1010 FUNFIT: MOBILE EXERGAMING WITH HUMAN ACTIVITY RECOGNITION USING DEEP SPATIAL-TEMPORAL ANALYSIS
9	A1011 HUMAN AGE ESTIMATION USING GAIT AND FACE MODALITIES
10	A1012 IMPROVING TRAFFIC FLOW PREDICTION IN SMART CITY APPLICATIONS
11	A1013 IOT SMART PARKING GUIDANCE USING WKNN ALGORITHM
12	A1014 IOT-BASED CUSTOMER FLOW MONITORING SYSTEM
13	A1020 RFCNN MASKED FACE RECOGNITION
14	A1025 STACKED AUTOENCODER BASED FEATURE LEARNING WITH PARALLEL PARTICLE SWARM OPTIMIZATION FOR COMMUNITY DETECTION
15	A1026 UNSUPERVISED TIME SERIES ANOMALY DETECTION FOR SMART HOME ENERGY CONSUMPTION SYSTEM USING CLUSTERING APPROACH
16	A2001 ARTIFICIAL SUN SIMULATOR FOR SOLAR PV TESTING IN INDOOR ENVIRONMENT
17	A2003 AUTOMATIC HANDOVER ALGORITHM IN 5G AND BEYOND NETWORKS
18	A2005 DESIGN AND DEVELOPMENT OF AN INNOVATIVE MMU EXAM TABLE AND CHAIR

19	A2007 DESIGN OF MULTIBAND ENERGY HARVESTING SYSTEM FOR WIRELESS POWER COMMUNICATIONS
20	A2009 DEVELOPING A FUN AND ENGAGING VIRTUAL CLASS BY IMPLEMENTING THE "SANDBOX" METHOD
21	A2011 DEVELOPMENT OF IOT BASED SMART INDOOR HOME GARDENING SYSTEM
22	A2012 DEVELOPMENT OF MULTI-TASK STREET FEATURES BASED AN INTELLIGENT WIRELESS CONTROLLING SYSTEM
23	A2013 DRONE BASED HYPERSPECTRAL IMAGING SYSTEM FOR PRECISION AGRICULTURE
24	A2015 EFFECT OF LITHIUM TRANSFERENCE NUMBER IN SOLID POLYMER ELECTROLYTE FOR POLYMER BATTERY
25	A2019 ENERGY-EFFICIENT RESOURCE ALLOCATION WITH INTERFERENCE MITIGATION FOR COGNITIVE HETEROGENEOUS CLOUD RADIO ACCESS NETWORK (CH-CRAN)
26	A2021 ESB-WOW: ECO-FRIENDLY ELECTROPLATING SLUDGE BRICK AS WEALTH OUT OF WASTE ALTERNATIVE
27	A2024 IMPLEMENTATION OF AN IOT-ASSISTED TESTBED WITH RFID TRACKING FOR BABY INTENSIVE CARE SYSTEM
28	A2025 INTELLIGENT SMART-HOME ADVISORY SYSTEM
29	A2027 MEAN GAIN, EXCESS NOISE AND RESPONSE TIME IN GaN/4H-SiC THIN HETEROJUNCTION AVALANCHE PHOTODIODES
30	A2029 MOBILE ROBOTIC PLATFORM FOR RESEARCH AND SECURITY INDUSTRY
31	A2030 MODELLING AND ALGORITHM FOR RF ENERGY HARVESTING UTILIZING RECONFIGURABLE INTELLIGENT SURFACE IN VEHICLE TO VEHICLE (V2V) SYSTEM
32	A2031 MODELLING THE EFFECTS OF PARTICLE MIGRATION ON THE THERMAL TRANSPORT OF A NANOFLUIDS-COOLED MICROCHANNEL HEAT SINK
33	A2033 PRE-CRIME DETECTION VIA CAR MISMARCHING SYSTEM USING DEEP LEARNING
34	A2038 SECURITY THREATS ON DATA CENTERS IN INTERNET OF THINGS NETWORKS
35	A2040 SMART INSPECTION OF ENERGY INSTALLATIONS (SIEI)
36	A2041 SMART STICK BASED EYETECH DIGITAL SYSTEM FOR MOVEMENT TRACKING USING ULTRASONIC TECHNOLOGY
37	A2042 SURFACE MICROHARDNESS IMPROVEMENT AND FRICTION REDUCTION OF RECYCLED AA 6063 USING ENERGY-EFFICIENT FSP
38	A3001 CREATIVE INTERPRETATION AS BASIS OF A HISTORICAL BUILDING RECONSTRUCTION
39	A3002 RIPHEN RESEARCH PROGRAM: DIGITAL FUTURES
40	A4003 A MODEL IN REDUCING WORKPLACE ACCIDENTS AND INJURIES IN SMES MANUFACTURING INDUSTRIES
41	A4004 ACCEPTANCE OF E-MENTAL HEALTH AMONG DIGITAL TALENT
42	A4005 AN EXAMINATION OF CRYPTOCURRENCY ADOPTION AMONG INVESTORS IN MALAYSIA
43	A4006 ANIMATED LEARNING AGENT: DO THE MESSAGES MATTER?
44	A4007 BIODIVERSITY, GREENERY, IN HOUSING DEVELOPMENT, AND SETTLEMENT INTENTION: A PROPOSED FRAMEWORK
45	A4009 DEVELOPING A FRAMEWORK FOR IMPROVING CORPORATE VALUE AND EFFICIENCY IN MALAYSIA THROUGH EFFECTIVE ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) CRITERIA
46	A4010 ENGAGEMENT LEVELS AMONG ACADEMICS IN MALAYSIAN PRIVATE HIGHER EDUCATIONAL INSTITUTIONS

47	A4011 ENHANCING LEGAL PROTECTION OF STRAY ANIMALS WELFARE THROUGH SOCIETY INTERVENTION
48	A4012 EXPLORING THE PSYCHOLOGICAL PROFILE OF INDIVIDUALS VULNERABLE TO FAKE NEWS
49	A4013 EXPLORING THE ROLE OF ETHICAL LEADERSHIP ON EMPLOYEES' TURNOVER INTENTION: DOES ORGANIZATIONS' ETHICAL CLIMATE AND EMPLOYEES' EMOTIONAL EXHAUSTION PLAY A ROLE?
50	A4014 FACTORS INFLUENCING THE EFFECTIVENESS OF PETROL SUBSIDY PROGRAM IN MALAYSIA
51	A4015 FINANCIAL LITERACY AND FINANCIAL WELL-BEING OF B40 YOUNG ADULTS: A CAPABILITY PERSPECTIVE
52	A4017 GENERATION Z SHOPPERS REPURCHASE INTENTION TOWARDS SHOPEE MOBILE APPLICATION
53	A4018 IMPULSE BUYING'S ANTECEDENT AND CONSEQUENCE: MALAYSIAN E-WALLET USERS PERCEPTIONS
54	A4019 INSTILLING ENTREPRENEURIAL MINDSET TOWARDS UNIVERSITY STUDENTS BY USING THE HUSTLER BOARD GAME
55	A4020 KNOWLEDGE, BARRIERS AND INTENTION ON SCREENING AND VACCINATION AGAINST CERVICAL CANCER: A STUDY AMONG WOMEN IN MALAYSIA
56	A4022 LEGISLATIVE APPROACH IN MANAGING ENVIRONMENT POLLUTION BY ALIEN FISH SPECIES IN MALAYSIA
57	A4024 MOBILE LEARNING APP FOR SPECIAL EDUCATION (Baca BersamaMu)
58	A4025 MODELLING ACCOUNTING PROFESSION'S ADOPTION AND READINESS OF DIGITAL TECHNOLOGIES
59	A4028 PEER MEDIATION IN HIGHER EDUCATION INSTITUTIONS IN MALAYSIA
60	A4031 SHIFTING VOLUNTEERISM FROM THE REALITY INTO THE DIGITAL WORLD: PERSPECTIVE FROM YOUNG MILLENNIALS
61	A4032 SUCCESSFUL COPING PRACTICES FOR DIGITAL TEACHING DURING MOVEMENT CONTROL ORDER IN MALAYSIA
62	A4033 SUSTAINABLE ENTREPRENEURSHIP IN MALAYSIAN COMPANIES
63	A4034 TEACHING AND LEARNING OF MATHEMATICS WITH EDUBOT
64	A4035 THE DETERMINANTS OF FARMER'S ADAPTATION TO CLIMATE CHANGE: A CASE STUDY IN CAMERON HIGHLANDS
65	A4036 THE ONLINE GROCERY SHOPPING ADOPTION AMONG ELDERLY IN MALAYSIA
66	A4037 THE PROPOSAL OF REGULATORY MODEL ON CYBER SECURITY FOR FINANCIAL TECHNOLOGY (FINTECH) ADOPTION IN ISLAMIC FINANCE IN MALAYSIA
67	A4038 UNDERGRADUATES' PERCEPTION ON DISTANCE LEARNING DURING PANDEMIC
68	B001 AN ENERGY EFFICIENT AUTOMATIC CONTROL POULTRY EGG INCUBATOR
69	B002 BUBBABOOP
70	B006 FORM RECOGNITION AND OPTICAL CHARACTER RECOGNITION FOR CLAIMS AUTOMATION
71	B007 MICROSOFT TEAMS AN EFFECTIVE TOOLS FOR FORMATIVE ASSESSMENT
72	B008 MPCEN - MEDIA PROJECT ON CONSERVATION ENVIRONMENT & NATURE
73	B011 SAGOLICIOUS
74	B012 SIGN LANGUAGE TRANSLATE AND LEARNING APP
75	B013 STUDENT VOLUNTEER AS A CATALYST FOR SOCIAL INNOVATION
76	B014 THE CHANGEMAKER ACADEMY
77	B015 VIRTUAL CONFINEMENT & POSTNATAL CARE CENTRE

BRONZE AWARDS

1	A1003 ACOUSTIC FIRE EXTINGUISHER
2	A1006 AN IOT SYSTEM INCORPORATED WITH LOF AND SGBMO-ANN MACHINE LEARNING FOR CVD MONITORING AND METHODS
3	A1015 OIL PALM FFB COUNTING USING YOLO DARKNET
4	A1017 PRESENTATION ATTACK DETECTION FOR FINGER VEIN RECOGNITION
5	A1022 SLEEPCON: SLEEPING POSTURE RECOGNITION MODEL USING CONVOLUTIONAL NEURAL NETWORK
6	A1024 SmartPay: INTEGRATION OF E-WALLET AND FINANCIAL PORTFOLIO ANALYSIS
7	A1027 VEHICLE TYPE RECOGNITION IN NIGHTTIME SCENE
8	A1028 VIDEO ANALYTICS USING DEEP LEARNING FOR HAJJ PILGRIMAGE CROWD MONITORING
9	A1029 WEAPON DETECTION IN SURVEILLANCE VIDEOS USING DEEP NEURAL NETWORKS
10	A2026 IOT THERMAL DETECTION SYSTEM
11	A4001 A FRAMEWORK TO MEASURE MENTAL HEALTH AWARENESS OF SECONDARY STUDENTS
12	A4002 A MIXED METHODS OF SOCIAL COMMERCE USABILITY CASES
13	A4008 DETERMINANTS OF PSYCHOSOCIAL FACTORS FOR SUSTAINABLE GREEN VOLUNTEERISM AMONG MALAYSIAN YOUTH
14	A4023 MALAYSIA PUBLIC HEALTHCARE PSYCHOLOGICAL WORK ENVIRONMENT TOWARDS BETTER EMPLOYEE PSYCHOLOGICAL WELL-BEING & MENTAL HEALTH
15	A4029 READINESS OF PRIVATE UNIVERSITY ACCOUNTING STUDENTS TOWARDS INDUSTRIAL REVOLUTION 4.0
16	A4030 RISK MANAGEMENT OF CLOUD COMPUTING PROJECTS IN HEALTHCARE
17	A4039 USING THE GOLDBLOCKS PRINCIPLE OF DIGITAL LEARNING STRATEGIES TO ACHIEVE LIFELONG LEARNING: AN OMNITEMPORAL SKILL FOR TERTIARY STUDENTS
18	B003 BUDGET FOOD HOUSE
19	B004 CUSTOMER ENGAGEMENT WITH SOCIAL MEDIA INTERACTIVE ADVERTISING AND THEIR PURCHASE INTENTION OF SMES PRODUCTS
20	B005 DIGITAL ENGAGEMENT STRATEGY FOR AWARENESS PROGRAM
21	B009 MR.DOCTOR (VIRTUAL CLINIC APP)