

NO	PROJECT TITLE	PRINCIPAL INVESTIGATOR	DATE START	DATE END	AMOUNT AWARDED(RM)
1	GENOMIC DETERMINANTS OF MULTIDRUG RESISTANCE IN COAGULASE NEGATIVE STAPHYLOCOCCI	AZIYAH BT ABD AZIZ	1/1/2019	28/9/2022	181,900.00
2	MECHANICAL PROPERTIES AND THERMAL STABILITY OF PLA/PP HYBRID NANOCOMPOSITES	ENGKU ZAHARAH BINTI ENGKU ZAWAWI	1/1/2019	31/3/2022	88,900.00
3	STRUCTURAL, THERMAL AND ELECTRICAL PROPERTIES OF FLEXIBLE ACRYLATE FILMS FROM NEWLY SYNTHESIZED PMMA CONTAINING IONIC LIQUID	FAMIZA BINTI ABD LATIF	1/1/2019	28/9/2021	78,200.00
4	THE CHARACTERIZATION OF GLYCIDOPROPYLTRIMETHOXY SILANE AND SODIUM DODECYLBENZENESULFONATES COMPOSITE PRETREATMENT COATING IN THE CORROSION PROTECTION OF MILD STEEL IN NA CL SOLUTION	MOHAMAD KAMAL BIN HJ HARUN	1/1/2019	28/9/2022	100,000.00
5	HIGHLY ACTIVE SNO ₂ NANOPARTICLES AS SUPERACID CATALYSTS IN ESTERIFICATION OF LOW COST PALM FATTY ACID DISTILLATE (PFAD) FEEDSTOCK INTO BIODIESEL	MOHD SUFRI BIN MASTULI	1/1/2019	28/9/2021	91,700.00
6	MECHANISTIC INSIGHT ON ATOMIC STRUCTURE AND ELECTRONIC PROPERTIES OF MULTIFERROIC Bi _{1-x} Ga _x FeO ₃ (x= 0,0.01,0.02,0.03) THIN FILMS: X-RAY PHOTOELECTRON SPECTROSCOPY (XPS) AND FIRST-PRINCIPLES STUDIES	MUHAMAD KAMIL BIN YAAKOB	1/1/2019	28/9/2021	98,200.00
7	ENHANCEMENT OF FUNCTIONAL PROPERTIES OF UNRIPE LOCAL BANANA STARCH THROUGH CROSSLINKING AND PRE-GELATINISED METHODS.	NOORLAILA BT AHMAD	1/1/2019	28/9/2021	90,200.00
8	POLYPYROLE-GRAPHENE OXIDE NANOCOMPOSITE SORBENT FOR MICRO-SOLID PHASE EXTRACTION OF TETRACYCLINE ANTIBIOTICS RESIDUES IN AQUEOUS MATRICES.	NOR SUHAILA BINTI MOHAMAD HANAPI	1/1/2019	28/9/2022	102,900.00
9	SYSTEMATIC CLASSIFICATION OF PINEAPPLE VARIETIES BY CHEMOMETRIC APPROACH USING SENSORY ANALYSIS, VOLATILE AND PHENOLIC COMPOSITIONS	ROZITA BINTI OSMAN	1/1/2019	31/3/2022	69,200.00
10	PROTEOME PROFILE AND PHYSICO-CHEMICAL ANALYSIS OF CHICKEN BLOOD PLASMA ADULTERATION IN SURIMI-BASED PRODUCTS FOR ALTERNATIVE HALAL DETECTION METHOD.	SITI AIMI SARAH BINTI ZAINAL ABIDIN	1/1/2019	28/9/2021	108,200.00
11	ENHANCEMENT OF UPCONVERSION LUMINESCENCE BY METALLIC SILVER NANOPARTICLES ADDITION IN ER ³⁺ /VANADIUM CO-DOPED (59-X-Y)B ₂ O ₃ -20NA ₂ O-20CAO-YV ₂ O ₅ -1ER ₂ O ₃ -XAGCL MIXED IONIC-ELECTRONIC GLASSES	SYAFAWATI NADIAH BINTI MOHAMED	1/1/2019	31/3/2022	82,200.00

12	CHARACTERISATION OF THE N-GLYCANS OF PANCREATIC ENZYMES FROM PORCINE AND HALAL SOURCES AS WELL AS ITS IMPACT ON ENZYME ACTIVITY.	UMI MARSHIDA BINTI ABD HAMID	1/1/2019	28/9/2022	144,000.00
13	SURFACE PROPERTIES AND ELECTROCHEMICAL PERFORMANCE OF NANOPOROUS GOLD COATING	YUSAIRIE BIN MOHD	1/1/2019	28/9/2022	100,200.00
14	MICROBIAL BIOTRANSFORMATION OF CHLORPYRIFOS BY SOIL FUNGI	ZAIDAH BT ZAINAL ARIFFIN	1/1/2019	31/3/2022	92,500.00
15	THE NOVELTY OF GRAPHENE SYNTHESIS USING WASTE COOKING PALM OIL AS GREEN CARBON SOURCE FOR HUMIDITY SENSORS	SAIFOLLAH BIN ABDULLAH	1/4/2019	27/9/2020	25,000.00
16	DESIGNING ANTI-INFLAMMATORY DRUG NANOCOMPOSITE WITH SUSTAINED PROPERTIES BY USING LAYERED DOUBLE HYDROXIDES AS NANOCARRRIER	SITI HALIMAH BT SARIJO	1/4/2019	26/3/2022	32,000.00
17	ANTIMICROBIAL ACTIVITY OF SLECTED AROMATIC PLANTS & ITS CHEMICAL COMPOSITION DETERMINATION	WAN RAZARINAH BINTI WAN ABDUL RAZAK	1/4/2019	27/9/2020	20,000.00
18	DEREPLICATION APPROACH FOR IDENTIFICATION OF ANTIMALARIAL COMPOUNDS FROM KIBATALIA MAINGAYI USING LC-ESI-MS	CHE PUTEH BINTI OSMAN	1/7/2019	25/6/2023	30,000.00
19	ZNO NANOROD ARRAYS/NANOPARTICLES: NOVEL SONICATION SYNTHESIS, CHARACTERISATION AND FORMATION MECHANISM FOR PHOTORESPONSE AND PHOTOSENSITIVITY PROPERTIES	MOHD FIRDAUS BIN MALEK	1/7/2019	25/6/2022	30,000.00
20	GROWTH MECHANISM STUDY UNCOVERING STRUCTURE-FUNCTION RELATIONSHIPS IN METAL (AU, AG, PT) NANOPARTICLES INTEGRATED ON METAL-OXIDE MATERIALS	NUR AIMI BINTI JANI	1/7/2019	25/6/2022	30,000.00
21	EFFECT OF FILM THICKNESS AND ELECTRODE TYPE ON THE ENERGY STORAGE CAPACITY OF PVDF-TRFE/MGO NANOCOMPOSITE THIN FILM	ROZANA BT MOHD DAHAN	1/7/2019	25/6/2022	30,000.00
22	A PROTOTYPE OF HIGHER PERFORMANCE OF 4-NITROPHENOL SENSOR USING REDUCED GRAPHENE OXIDE-SILVER NANOHYBRID MODIFIED ELECTRODE	NURUL IZRINI BINTI IKHSAN	1/8/2019	30/4/2022	64,000.00
23	FUNDAMENTAL STUDY OF CMOS WITH IN-PIXEL INTELLIGENCE IN THREE-DIMENSIONAL OPTICAL COMPUTED TOMOGRAPHY DOSIMETRY SYSTEM DEVELOPED IN-HOUSE.	AHMAD TAUFEEK BIN ABDUL RAHMAN	1/9/2019	30/5/2023	158,810.00

24	EFFECT OF STABILIZATION METHODS ON THE STABILITY OF RED PIGMENT EXTRACTED FROM ALTERNANTHERA SESSILIS RED	AZIZAH BINTI OTHMAN	1/9/2019	30/5/2022	51,200.00
25	THE MIGRATION EFFECT OF NOMINAL OPERATING CELL TEMPERATURE (NOCT) TEST METHOD TO NOMINAL MODULE OPERATING TEMPERATURE (NMOT) TEST METHOD ON THE ELECTRICAL AND THERMAL CHARACTERISTICS OF PV MODULE.	HEDZLIN BINTI ZAINUDDIN	1/9/2019	30/5/2022	97,700.00
26	OCCUPATIONAL RISK ASSESSMENT OF BENZENE, TOLUENE, ETHYLBENZENE AND XYLENE (BTX) IN PETROL REFUELLING STATIONS IN SELANGOR	ISMANIZA BINTI ISMAIL	1/9/2019	30/5/2022	51,200.00
27	MOLECULAR AND NANOSCALE CATALYST DERIVED FROM SILICA AND PALLADIUM WASTE	KHAIRIL ANUAR BIN JANTAN	1/9/2019	30/5/2022	51,200.00
28	MICROBIAL DIVERSITY AND PROTECTIVE CHARACTERISTICS OF THE SKIN AND ORAL MICROBIOME	MOHAMAD FAIZ FOONG BIN ABDULLAH	1/9/2019	30/5/2023	187,800.00
29	DENSITY FUNCTIONAL THEORY AND EXPERIMENTAL STUDIES OF PIEZOELECTRIC PROPERTIES MULTIFERROIC BIFEO3/AG NANOCOMPOSITE.	MOHAMAD FARIZ BIN MOHAMAD TAIB	1/9/2019	30/5/2022	99,700.00
30	DIFFERENTIAL WHOLE-CELL PROTEOME EXPRESSION AND PROTEIN INTERACTION NETWORK IN THE BIOFILM OF CORYNEBACTERIUM PSEUDOTUBERCULOSIS CLINICAL ISOLATES	MOHD FAKHARUL ZAMAN BIN RAJA YAHYA	1/9/2019	30/5/2022	170,200.00
31	STRUCTURAL, ELASTIC, MAGNETIC AND ELECTRONIC PROPERTIES OF B-SITE CATION DOPING ON TELLURIUM-BASED PEROVSKITE-OXIDE MATERIALS. LACACO1-XAXTEO6 (A=NI ²⁺ , MN ²⁺)	MOHD FAUZI BIN MAULUD	1/9/2019	30/5/2022	61,800.00
32	TOTAL SYNTHESIS OF CODINAEOPSIN AS UNIQUE TRYPTOPHAN-TETRAMIC ACID TYPE COMPOUND ISOLATED FROM ENDOPHYTIC FUNGUS CR127A.	MOHD FAZLI BIN MOHAMMAT @ MOHAMED YAHYA	1/9/2019	30/5/2023	142,800.00
33	NANOEMULSION ENCAPSULATED STANDARDIZE EXTRACT OF CENTELLA ASIATICA (NANOSECA): IN SILICO AND IN VIVO EVALUATION IN COGNITIVE FUNCTION AND ITS MEMOERY ENHANCING PROPERTY	MOHD ILHAM BIN ADENAN	1/9/2019	28/2/2022	350,000.00
34	MECHANISM OF ELECTRONIC CONDUCTION OF PEDOT-PSS: X-PHOTOELECTRON SPECTROSCOPY (XPS) AND DENSITY FUNCTIONAL THEORY (DFT) ANALYSIS	MOHD MUZAMIR BIN MAHAT	1/9/2019	30/5/2022	51,200.00
35	UNCOVERING PROBIOTIC MEDIATED GUT MICROBIOTA MODULATION IN HYPERTENSIVE MICE	MOHD SHAFIQ BIN AAZMI	1/9/2019	30/5/2022	51,200.00

36	EFFECT OF ZNO NANOPARTICLES COATED MANGO FRUIT ON ANTIFUNGAL ACTIVITY OF COLLETOTRICHUM GLOEOSPORIODES	NOOR ASNIDA BINTI ASLI	1/9/2019	30/5/2022	62,800.00
37	CROSSLINKING EFFECTS ON THERMAL AND MECHANICAL STABILITY OF NANO-ZEOLITE FIBRES	NOR DALILA BINTI NOR AFFANDI	1/9/2019	30/5/2022	58,800.00
38	EFFECT OF SODIUM LOADING ON CLAY BASED HETEROGENOUS CATALYSTS FOR TRANSESTERIFICATION OF WASTE COOKING OIL TO BIODIESEL	NORAINI BINTI HAMZAH	1/9/2019	30/5/2023	90,000.00
39	MAGNETIC INTERACTIONS AND EVOLUTION OF GRIFFITHS PHASE IN $Pr_{0.75}Na_{0.05}K_{0.20}Mn_{1-x}MxO_3$ MANGANITES (ME= FE, CR, GA)	NORAZILA BINTI IBRAHIM	1/9/2019	30/5/2023	92,000.00
40	EFFECT OF BI 6S2 LONE PAIRS AND AG-NANOPARTICLE SUBSTITUTIONS ON ELECTRON EXCHANGE MECHANISM OF PEROVSKITES MANGANITES (ND1-XBIX)0.7AG0.3MNO3 AND (ND0.5BI0.5)1-YAGYMNO3	NUR BAIZURA BINTI MOHAMED	1/9/2019	30/5/2022	51,200.00
41	BIOASSAY GUIDED ISOLATION OF CYTOTOXIC COMPOUNDS FROM THE LEAVES TECTONA GRANDIS	NUR VICKY BINTI BIHUD	1/9/2019	31/8/2021	18,000.00
42	GENOMIC CHARACTERISATION OF HUMAN RESPIRATORY PATHOGENS (STREPTOCOCCUS PNEUMONIAE AND BURKHOLDERIA PSEUDOMALLEI) AMONG ORANG UTAN AT ORANG UTAN ISLAND BUKIT MERAH PERAK	NURUL AILI BINTI ZAKARIA	1/9/2019	30/5/2022	51,200.00
43	AMELIORATING DIABETIC MALE REPRODUCTIVE FUNCTIONS WITH L-GLUTATHIONE	NURUL HUDA BINTI MUSA	1/9/2019	30/5/2023	150,000.00
44	ENHANCEMENT OF MECHANICAL PROPERTIES OF AL-SI ALLOY BY GRAIN REFINEMENT WITH ZRB2 AND SC	ROSMAMUHAMADANI BIN RAMLI	1/9/2019	30/5/2022	51,200.00
45	NEW SYNTHESIS OF CO3O4-NIO HOLLOW SPHERE/RGO COMPOSITE AND ITS ELECTROCHEMICAL AND SURFACE PROPERTIES ON MODIFIED SPCE	ROSSURIATI BINTI DOL HAMID	1/9/2019	30/5/2022	51,200.00
46	SYNTHESIS, CHARACTERIZATION AND KINETICS STUDIES OF POLYVINYL ALCOHOL (PVA) IMMOBILIZED NI(II) SCHIFF BASE COMPLEXES IN SONOGASHIRA COUPLING REACTION IN WATER	SHAHRUL NIZAM BIN AHMAD	1/9/2019	30/5/2022	51,200.00
47	POLYMER COMPOSITE CONTAINING NI/AL LAYERED NANOMATERIAL AS FILLER : AN EFFICIENT POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES APPLICATION	SITI KHATIJAH BINTI DERAMAN	1/9/2019	30/5/2022	51,200.00

48	MECHANISMS AND MODELS FOR OXYGENATED AND POROUS MALAYSIAN LOW-RANK ACTIVATED CARBON	SITI NORASMAH BINTI SURIP	1/9/2019	30/5/2022	96,200.00
49	MILK CLOTTING AND PHYSICO-CHEMICAL PROPERTIES OF CHEESE MADE USING EXTRACTED BROMELAIN FROM PINEAPPLE WASTE.	SITI ROHA AB MUTALIB	1/9/2019	30/5/2022	51,200.00
50	MECHANISTIC INSIGHT OF ION TRANSPORT, STRUCTURAL AND ELECTROCHEMICAL PROPERTIES ON NANOCOMPOSITE BIOPOLYMER CONDUCTING FILMS BASED ON AGAROSE-MAGNESIUM NITRATE	SITI ZAFIRAH BINTI ZAINAL ABIDIN	1/9/2019	30/5/2022	89,200.00
51	ENHANCING PHOTOLUMINESCENCE INTENSITY AND SPECTRAL BANDWIDTH VIA DEPOSITION OF NANOFIBER/THIN-FILM MULTILAYERS TM3+/YB3+ CO-DOPED SiO ₂ -HfO ₂ .	SURAYA BINTI AHMAD KAMIL	1/9/2019	30/5/2023	143,500.00
52	SILICA-ENRICHED EXTRACT FROM OIL PALM BIOMASS AS A POTENTIAL SORBENT FOR DETERMINATION OF ORGANOPHOSPHORUS PESTICIDES THROUGH ONLINE SOLID PHASE EXTRACTION AND MAGNETIC SOLID PHASE EXTRACTION	WAN NAZIHAH BINTI WAN IBRAHIM	1/9/2019	30/5/2023	118,200.00
53	PHENOTYPIC AND GENETIC STRUCTURE OF OIL PALM PLANTING MATERIAL IN INDEPENDENT SMALLHOLDER PLANTATION	WAN NURHAYATI BINTI WAN HANAFI	1/9/2019	30/5/2023	175,050.00
54	STRUCTURAL LATTICE DISTORTION AND ELECTRONIC SPIN COUPLING INDUCED PARAMAGNETIC-INSULATOR TO FERROMAGNETIC-METALLIC TRANSITION IN Sr ₂ -XCaxMnMO ₆ (X=0-1) AND Ca ₂ MnMO _{1-x} WO ₆ (X=0-1) DOUBLE PEROVSKITES.	ZAKIAH BINTI MOHAMED	1/9/2019	30/5/2023	134,800.00
55	MODERNIZATION OF THE INJECTION DYES TECHNOLOGY ON THE TRADITIONAL NATURAL FIBRES BATIK PRINTING QUALITY	AHMAD FAIZA BIN MOHD	20/9/2019	25/2/2021	150,000.00
56	BASIC CLASSIFICATION AND DEFINITIONS OF POLYMERIZATION REACTIONS (#20119-027-1-400)	CHAN CHIN HAN	15/10/2019	14/10/2022	20,765.00
57	OPTIMIZATION OF EFFECTIVE MICROBES (EM) FORMULA FOR FRESH WATER LOBSTER (LAT) GROWTH IMPROVEMENT	KHALILAH BINTI ABDUL KHALIL	20/10/2019	8/6/2021	22,400.00
58	PHYTOCHEMICAL BIOLOGICAL ACTIVITIES AND MOLECULAR DOCKING STUDIES OF HOPEA HELFERI FROM ROYAL BELUM STATE PARK	AISYAH SALIHAH BINTI KAMARUZAMAN	1/12/2019	25/11/2022	20,000.00
59	PREPARATION AND CHARACTERIZATION OF POLYANILINE ADDED EXTRACTED SILICA FROM RICE HUSK AND ITS POTENTIAL AS CORROSION INHIBITORS IN ACIDIC MEDIA	AMIRAH AMALINA BINTI AHMAD TARMIZI	1/12/2019	25/11/2022	20,000.00

60	THE CHARACTERIZATION GENOTYPING AND MOLECULAR DETECTION OF BURKHOLDERIA PSEUDOMALLEI AMONG ORANG UTAN AT ORANG UTAN ISLAND BUKIT MERAH PERAK	FARIDA ZURAINA BINTI MOHD YUSOF	1/12/2019	25/11/2022	20,000.00
61	ANATOMICAL CHARACTERIZATION OF HOST PARASITIC RELATIONSHIP BETWEEN TETRASTIGMA SPP AND RAFFLESIA SPP	MOHD NAZIP BIN SURATMAN	1/12/2019	25/11/2022	20,000.00
62	POTENTIALLY ANTI CANCER AGENTS DERIVED FROM MELALUCA CAJIPUTI SP SYNTHESIS CHARACTERIZATION AND EVALUATIONS OF THEIR ANTICANCER ACTIVITIES	MOHD TAJUDIN B MOHD ALI	1/12/2019	25/11/2022	20,000.00
63	SYNTHESIS OF ANTI CANCER AGENTS BASED ON BETULINIC NANOCELLULOSE POLYGALACTURONIC PURIFIED FROM FRUITS MORINDA CITRIFOLIA	NAJMAH BT P.S. HASSAN	1/12/2019	25/11/2022	20,000.00
64	HABITAT PREFERENCE OF NON VOLANT SMALL MAMMALS IN KUALA KENIAM	NUR NADIAH BINTI MD. YUSOF	1/12/2019	25/5/2022	NA
65	RECREATIONAL WATER QUALITY ANALYSIS OF SUNGAI TEMBELING TRIBUTARIES IN TAMAN NEGARA PAHANG	NURUL NADIAH BINTI MOHD FIRDAUS HUM	1/12/2019	25/5/2022	NA
66	DEVELOPMENT OF LOW-COST BIODEGRADABLE STRAW WITH BIO FILLERS AND PHOTODEGRADANT	RAHMAH BINTI MOHAMED	1/12/2019	28/8/2022	146,000.00
67	OPTIMIZATION OF BIOTECH-AZOLLA BASED PALLETS FOR THE GROW-OUT PHASE OF FRESHWATER TILAPIA, OREOCHROMIS SP.	ROHANA BINTI MAT NOR	1/12/2019	1/6/2021	44,000.00
68	DIVERSITY AND ANTIMICROBIAL ACTIVITY OF ENDOPHYTIC BACTERIA FROM KUALA KENIAM PLANTS	SHARIFAH AMINAH BT SYED MOHAMAD	1/12/2019	25/5/2022	NA
69	FUNDAMENTAL STUDY ON PHYSICO MECHANICAL PROPERTIES OF GREEN RUBBER VIRGIN RUBBER BLENDS FOR GENERAL RUBBER GOOD PRODUCTS	SITI NUR LIYANA BINTI MAMAUOD	1/12/2019	25/11/2022	20,000.00
70	DESIGNING SOLID-STATE SUPERCAPACITOR FOR ELECTRONIC GADGET USING HEXANOYL CHITOSAN/ENR POLYMER ELECTROLYTE AND FECO2O4 ELECTRODE	TAN WINIE	1/12/2019	28/8/2022	85,000.00
71	PREDICTION AND DETECTION OF MENSTRUAL CYCLE AMONG ORANGUTAN AT ORANG UTAN ISLAND BUKIT MERAH PERAK	WAN ROZIANOOR BINTI MOHD HASSAN	1/12/2019	25/11/2022	20,000.00

72	EFFECT OF SOLID STATE FERMENTED SEAWEED ADDITION TO COFFEE PREMIX ON POLYPHENOL ANTIOXIDANT ACTIVITY APPETITE AND FOOD INTAKE IN NONDIETING OVERWEIGHT AND OBESE WOMEN	ZAIBUNNISA BINTI ABDUL HAIYEE	1/12/2019	25/11/2022	20,000.00
73	DEVICE CONVERTING SUNLIGHT ENERGY INTO ELECTRICAL ENERGY FROM ANISOPTERA MARGINATA AND DILLENIA RETICULATA IN KUALA KENIAM COMMUNITY	ZAINIHARYATI BINTI MOHD ZAIN	1/12/2019	25/11/2022	20,000.00