

**Singapore Science and Engineering Fair 2024
Results of Final Judging**

Junior Scientist Category

Project Code	Project Title	Project Award	Video Contest Award
JB1002	INVESTIGATING THE BIOACTIVE COMPOUNDS PRESENT IN LION'S MANE MUSHROOM	Distinction	Participation
JB1003	DEVELOPMENT OF BIOPLASTICS SUPPLEMENTED WITH NATURAL PRODUCTS AS ALTERNATIVES TO SYNTHETIC PLASTICS	Merit	Participation
JB1004	CONTROLLING FILAMENTOUS ALGAE GROWTH IN FRESHWATER PONDS THROUGH THE USE OF CHITOSAN EXTRACTED FROM CRUSTACEAN SHELLS	Participation	Participation
JB1006	INVESTIGATING THE NUMBER AND CONFIGURATION OF MAN-MADE STRUCTURES ON THE EFFECTIVENESS OF ECOLOGICAL SEAWALLS	Distinction	Participation
JB1009	SUPPLEMENTATION OF LION'S MANE MUSHROOM IN THE DIET OF ALZHEIMER DROSOPHILA MELANOGASTER	Participation	Participation
JB1013	INVESTIGATION OF THE EFFECT OF DIFFERENT ANTI-BIOTIC DRUGS ON THE GROWTH OF E.COLI COLONIES	Participation	Participation
JB1017	INVESTIGATION OF THE EFFECT OF DIFFERENT TYPES OF COFFEE GROUNDS AS FERTILISERS ON THE RATE OF PLANT GROWTH	Participation	Participation
JB1018	INVESTIGATION OF THE BACTERIA GROWTH UNDER LIGHTS OF DIFFERENT COLOURS	Participation	Participation
JB1022	THE CURIOUS CASE OF BIOFLUORESCENCE IN PINEAPPLES	Merit	Participation
JB1025	GLYOXALASE RESCUES CELLS FROM SPIKE-INDUCED DEATH	Distinction	Distinction
JB1028	INVESTIGATING THE NUTRIENT AVAILABILITY OF COMPOST TEA MADE FROM DIFFERENT FOOD WASTE	Participation	Participation
JB1029	INVESTIGATING THE ANTIBACTERIAL PROPERTIES OF FRUIT PEEL EXTRACTS	Participation	Participation
JB1031	INVESTIGATION OF HOW PH AND MOISTURE CONTENT AFFECTS THE PERFORMANCE OF THE MICROBIAL FUEL CELL	Participation	Merit
JB1033	INVESTIGATING THE FEASIBILITY OF BIODEGRADABLE SEEDLING POTS FROM FOOD WASTE	Participation	Participation
JCH005	REMOVING CONTAMINANTS FROM WATER WITH COMMERCIALY AVAILABLE ACTIVATED CARBON AND ZEOLITE	Participation	Participation
JCH006	INVESTIGATING THE FEASIBILITY OF AN ENZYME-BASED CLEANING AGENT ON PROTEIN STAINS	Participation	Participation
JCH009	INVESTIGATION OF THE GALLIUM-ALUMINIUM RATIO ON THE PRODUCTION OF HYDROGEN GAS	Participation	Participation
JCH010	THE EFFECT OF CREAM OF TARTAR ON THE RESTING TIME OF MACARONS	Participation	Participation

Project Code	Project Title	Project Award	Video Contest Award
JCH012	EVALUATING THE USE OF MIXED METAL HYDROXIDES FOR THE REMOVAL OF AZO DYES	Participation	Participation
JMA001	MAKE24: BOUNDING THE GENERALISED FORM OF A NUMBERS GAME	Distinction	Participation
JMA002	EXPANDING ON THE COLLATZ CONJECTURE	Participation	Merit
JMA005	DYNAMIC BEHAVIORS OF MODIFIED SIRS MODELS	Participation	Participation
JMA006	POWERED CYCLE SUBTRACTION	Distinction	Participation
JPH001	AN INVESTIGATION ON THE EFFECTIVENESS OF USED COSMETIC SHEET MASKS AS A REUSABLE WHITEBOARD DUSTER	Merit	Distinction
JPH002	INVESTIGATION OF THE EFFECT OF CARBON DIOXIDE CONCENTRATION ON THE TEMPERATURE OF AIR IN A CLOSED CONTAINER WHEN EXPOSED TO SUNLIGHT	Participation	Participation
JPH003	INVESTIGATION OF THE TRANSMISSION RATIO OF DIFFERENT FLUIDS	Participation	Participation
JPH004	INVESTIGATION OF THE EFFECT OF ENERGY SUPPLIED ON THE TEMPERATURE OF A PELTIER CELL	Participation	Participation
JPH006	INVESTIGATION OF HOW SIMULATING MICROGRAVITY AT DIFFERENT CLINOSTAT ROTATIONAL SPEEDS WILL AFFECT THE GROWTH OF PLANTS	Participation	Participation
JPH011	INVESTIGATING THE EFFECT OF BUILDING CONFIGURATION IN ENHANCING NATURAL VENTILATION IN COMMON SPACES, TO ACHIEVE HUMAN THERMAL COMFORT	Participation	Participation
JPH013	INVESTIGATING THE FEASIBILITY OF SCOBY LEATHER AS A SUSTAINABLE LEATHER ALTERNATIVE	Participation	Merit
JPH016	SMALL-SCALE EXPERIMENTAL STUDY ON THE OPTIMISATION OF A ROOFTOP RAINWATER ENERGY HARVESTER	Participation	Participation
JPH019	TERRACOOOLTA TECH	Participation	Distinction

Main Category

Project Code	Project Title	Project Award	Special Award
AS002	DEVELOPMENT OF AN INTELLIGENT SYSTEM FOR MONITORING BIRD'S HEALTH IN THE NEW MANDAI BIRD PARADISE	Bronze	SAAS
AS003	EFFECT OF SELECTED HERBS ON REDUCING MOTOR DYSFUNCTION IN A CAENORHABDITIS ELEGANS MODEL OF AMYOTROPHIC LATERAL SCLEROSIS	Merit	
AS005	DETERMINING THE VISUAL AND AUDITORY LEARNING CAPACITIES OF HAMSTERS	Participation	

Project Code	Project Title	Project Award	Special Award
AS006	INVESTIGATION ON THE MOST EFFECTIVE ORGANIC PESTICIDE FOR FARMERS IN DEVELOPING COUNTRIES	Participation	
AS009	INVESTIGATING THE EFFECTS OF DIFFERENT NUTRIENTS ON THE SLEEP OF LARVAL ZEBRAFISH FOR APPLICATION IN HUMANS	Participation	
AS010	INVESTIGATING THE EFFECTS OF INGESTION OF DIFFERENT SUGARS AND SUBSTITUTES ON CARDIOVASCULAR HEALTH IN LARVAL ZEBRAFISH FOR APPLICATION IN HUMANS	Merit	
AS013	BEE SIZE AS A PREDICTOR OF NESTING AND POLLINATION IN LOCAL SPECIES	Participation	
AS014	LIGHT POLLUTION AND CHANGES IN THE EYES OF BEETLES	Silver	
AS019	FACTORS AFFECTING HERMETIA ILLUCENS (BLACK SOLDIER FLY) IN DIGESTING CERTAIN TYPES OF FOOD WASTE AND QUALITY OF FRASS PRODUCED	Merit	
BE001	SELF-POWERED TRIBOELECTRIC NANOGENERATOR FOR DYNAMIC MULTIDIRECTIONAL PRESSURE SENSING	Gold	JDF, SIMTech/ARTC, SAAS
BE002	DEVELOPMENT OF AN INTELLIGENT SYSTEM FOR GLAUCOMA AND EYE TESTING USING VIRTUAL REALITY AND DATA ANALYTICS	Merit	
BE004	PREDICTING STRESS LEVELS DURING A MENTAL ARITHMETIC TASK FROM EEG DATA	Participation	
BE007	LATERAL FLOW ASSAYS FOR THE RAPID DETECTION OF VIRUSES	Merit	
BE008	QUANTIFYING AND CORRECTING SPHERICAL ABERRATIONS FOR DEEP IMAGING OF CLEARED TISSUE	Bronze	
BE011	ANTIBACTERIAL, ANTIFUNGAL, AND ANTIOXIDANT PROPERTIES OF COMMON SEEDS AND THEIR APPLICATIONS TO FOOD PRESERVATION	Participation	
BE012	INVESTIGATING THE HUMAN LONGEVITY PROPERTIES OF HUMAN UMBILICAL CORD TISSUE IN THE PREVENTION AND CURE OF AGE-RELATED DISEASES	Bronze	
BE016	EX VIVO ENGINEERING OF CELLULAR SURFACES, A TRANSFECTION INDEPENDENT APPROACH.	Participation	
BE017	TINY TITANS: NANOBODIES AS UNIVERSAL BINDERS IN SPLIT PROXIMITY CIRCUITS FOR PROTEIN DETECTION	Participation	
BE018	DEVELOPING NOVEL PHASE RETRIEVAL ALGORITHMS AND FOURIER RING ANALYSIS OF ACCURACY LIMITATIONS UNDER IMAGING AND PROPAGATION ERRORS	Gold	
BE019	DEVELOPMENT OF NOVEL PRIME EDITORS FOR PRECISION GENOME ENGINEERING	Participation	
BE022	PROJECT METASENSE: A ROBUST CARDIOMETABOLIC MONITORING SYSTEM TO DETECT DROWSY DRIVING	Participation	
BE025	WORDS THAT HEAL: RETRIEVAL-AUGMENTED LARGE LANGUAGE MODELS FOR ENHANCED MEDICAL REPORT GENERATION	Gold	SUTD Healthcare

Project Code	Project Title	Project Award	Special Award
BE027	DEVELOPING A TIME-DOMAIN NEAR-INFRARED SPECTROSCOPY DEVICE TO AID THE DIAGNOSIS OF MAJOR DEPRESSIVE DISORDER	Participation	
BE028	WIRELESS MULTI-MODAL PHYSIOLOGICAL SENSING AND DATA ANALYSIS	Participation	
BI002	INVESTIGATING THE POTENTIAL OF DIRUTHENIUM CARBONYL COMPLEXES AS DNA BINDERS	Silver	SAAS
BI003	CONTRIVANCE OF SOLVENT-ENHANCED BIOACTIVE EXTRACTS FOR CASEOUS LACTICINIA PRESERVATION	Participation	
BI006	OPTIMISING PROTOCOLS FOR THE ANALYSIS OF FATTY ACIDS AT THE SN-2 POSITION IN FORMULA MILK	Participation	
BI007	SYNTHESIS OF A-MANGOSTIN SILVERNANOPARTICLES	Participation	
BI010	BUTYRATE DETECTION IN HYDROPONICALLY GROWN VERSUS SOIL-BASED VEGETABLES USING COLOURIMETRY AND HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC)	Participation	
BI011	CHARACTERISATION AND OPTIMIZATION OF EXTRACTION METHODS TO EXTRACT POLYHYDROXYALKANOATE FROM SPIRULINA(ARTHROSPIRA)	Bronze	
BI016	ENGINEERING IMPROVED POLYPEPTIDE VARIANTS OF ARCHAEAL SPECIFIC TARGET RECOGNITION LIGASE RECOGNITION SEQUENCE	Participation	
BM002	INVESTIGATING THE EFFECTS OF PLANT EXTRACTS ON ALZHEIMER'S DISEASE	Participation	SAAS
BM003	DYSREGULATION OF MYELIN-RELATED GENES IN NOTCH2NLC-ASSOCIATED NEURODEGENERATIVE DISEASES	Silver	
BM005	UNDERSTANDING THE MECHANISMS OF PARP INHIBITOR (PARPI) RESISTANCE	Merit	Amgen
BM006	EFFECT OF BERRY EXTRACTS ON SACCHAROMYCES CEREVISIAE WHEN EXPOSED TO FREE RADICALS	Participation	
BM007	EXPLORING THE ANTICANCER POTENTIAL OF PHYTOCHEMICALS USING YEAST AS A MODEL ORGANISM	Silver	
BM008	VALIDATION OF NOVEL ANALOGUES OF AN FDA-APPROVED ANTI-CANCER MOLECULE TO ALLEVIATE THE BURDEN OF ATOPIC DERMATITIS	Merit	
BM011	EFFECTS OF INTERNAL AND EXTERNAL FOCUS OF ATTENTION FEEDBACK ON YOUTH NOVICE AND INTERMEDIATE INLINE SKATING PERFORMANCE	Participation	
BM012	NEOANTIGENS IN IMMUNOTHERAPY: FROM THEORY TO PRACTICE	Merit	
BM014	NEURONAL AND VASCULAR DECOUPLING IN THE EYE	Participation	Amgen
BM015	DEVELOPING VEGAN-BASED BEEF FLAVOURINGS THROUGH RATIONAL CHEMICAL ANALYSIS AND DESIGN METHODOLOGIES	Bronze	

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BM016	SKIN PROTEOMICS FOR ASIAN ATOPIC DERMATITIS	Participation	
BM017	COMPARISON OF THE EFFECTIVENESS OF THE 'DOG AND BALL' EXERCISE AND CONCENTRATION GRID TEST ON THE REACTION TIME IN SQUASH PLAYERS	Participation	
BM020	INVESTIGATION OF THE USE OF SILVER IN THE DEVELOPMENT OF A LATERAL-FLOW IMMUNOASSAY FOR THE DETECTION OF HEPATITIS B IN SALIVA	Participation	
BM021	EVALUATION OF POLYGENIC RISK SCORE (PRS) FOR PREDICTING RISK OF CORONARY ARTERY DISEASE (CAD) AND ITS SEVERITY	Participation	
BM022	ROLES OF METABOLITES IN CANCER GROWTH	Participation	
BM023	USING CAENORHABDITIS ELEGANS AS A MODEL ORGANISM TO INVESTIGATE THE EFFECTS OF ARTHROSPIRA PLATENSIS ON ALZHEIMER'S DISEASE	Participation	
BM024	COMPARISON OF A 4-WEEK WEIGHTS TRAINING PROGRAM VERSUS A SPRINT AND PLYOMETRIC PROGRAMME ON LONG JUMP DISTANCE	Participation	SUTD Healthcare
BM025	INVESTIGATION INTO THE EFFICACY OF SELF-ASSEMBLED FOOD PROTEINS IN ENHANCING THE DELIVERY OF BIOAVAILABLE IRON	Participation	
BM028	INVESTIGATION OF HOW SODIUM CONCENTRATION IN SALTS AFFECTS UMAMI FLAVOURS PRODUCED IN SHIITAKE MUSHROOMS (LENTINUS EDODES) DURING FERMENTATION	Participation	
BM030	SPIKE DAMAGES MITOCHONDRIA TO SWITCH CELLS TO AEROBIC GLYCOLYSIS	Silver	
BM031	COMPARING ACMG AND MULTIPLE CURATION PLATFORMS FOR THE DIAGNOSIS OF IRDS AND OTHER GENETIC DISEASES	Participation	
BM032	ASSESSING THE CROSS-SECTIONAL ASSOCIATION AND PROGNOSTIC ABILITY OF SEVERAL MARKERS OF NEURODEGENERATION	Participation	
BM034	ENHANCED PROTECTION AGAINST OXIDATIVE STRESS IN A RETINAL EPITHELIUM MODEL THROUGH PRE-ABSORPTION OF LUTEIN	Participation	
BM035	INVESTIGATING THE EFFECTS OF THE DURATION OF MODERATE TO VIGOROUS EXERCISE ON BONE MINERAL DENSITY IN ELDERLY PEOPLE AGED 65 AND ABOVE	Participation	
CB002	OPTIMISING IN VITRO GENERATION AND CHARACTERISATION OF STEM CELL DERIVED PHOTORECEPTOR CELLS FOR RETINAL THERAPEUTICS	Silver	
CB003	ROLE OF B-CAT-TCF TRANSCRIPTION IN ANTIGEN PRESENTATION AND PROCESSING IN COLORECTAL CANCER	Bronze	
CB005	GLYCOLYSIS AND DNA REPAIR: NOVEL ROLES OF PYRUVATE KINASE IN THE DNA DAMAGE RESPONSE	Gold	SAAS
CB006	HOW METABOLIC ENZYMES TPI AND GAPDH LINK GLYCOLYSIS AND CANCER	Bronze	
CB009	IDENTIFICATION OF DISTINCTIVE CELLULAR MORPHOLOGY OF TUMOR INFILTRATED LYMPHOCYTES ACROSS TUMOR TYPES	Participation	

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CB010	DEVELOPMENT OF NEW CRISPR TOOLS FOR MORE EFFICIENT TRANSCRIPTOME ENGINEERING	Merit	
CB015	DIRECTING ALTERNATIVE RNA SPLICING OF THE OAS1 GENE BY NUCLEIC ACID THERAPEUTICS	Participation	
CB016	NOVEL TECHNOLOGIES TARGETING LAMINA-ASSOCIATED HETEROCHROMATIN DOMAINS FOR FUTURE INSIGHTS INTO DEVELOPMENTAL GENE REGULATION AND DISEASE MECHANISMS	Participation	
CB018	INVESTIGATING THE ROLE OF BRANCHED-CHAIN KETO ACIDS AS SIGNALLING MOLECULES IN HEPATOCELLULAR CARCINOMA	Bronze	
CH001	ASSESSMENT OF THE UMAMI FLAVOUR OF COMMERCIAL MEAT AND PLANT-BASED MEAT ANALOGUES	Gold	
CH002	SYNTHESIS OF MAGNETIC IRON OXIDE AND ITS APPLICATIONS TOWARD METHYLENE BLUE REMOVAL	Participation	NUS Chemistry
CH004	PHOTOINDUCED LATE-STAGE FUNCTIONALIZATION OF SULFONAMIDES VIA SMILES REARRANGEMENT	Bronze	
CH006	SYNTHESIS, CHARACTERISATION, AND DNA BINDING STUDIES OF RUTHENIUM(II) ARENE COMPLEXES WITH AMINO ACID-DERIVED REDUCED SCHIFF BASE LIGANDS	Merit	
CH007	INVESTIGATING THE PROPERTIES OF MAGNETIZED ACTIVATED CARBON FROM PANDANUS AMARYLLIFOLIUS	Participation	
CH008	SPATIAL INFORMATION INFERENCE IMPROVES ACTIVATION ENERGY PREDICTIONS	Participation	
CH009	DEEP LEARNING OF INFRARED SPECTRA FOR BOILING POINT PREDICTION	Participation	
CH013	DETECTION OF VOLATILE ORGANIC COMPOUNDS IN PRIMARY HUMAN BODY ODOR WITH A POLY-(ACRYLIC ACID) CAPACITIVE SENSOR	Participation	
CH017	EFFECTS OF COMMON SUGARS ON THE ANTIOXIDANT ACTIVITY IN GREEN TEA (CAMELLIA SINENSIS)	Participation	SAAS
CH019	COMPUTATIONALLY MODELLING THE ABSORPTION SPECTRA OF SUNSCREENING AGENTS	Participation	
CH020	EXTRACTION OF PHENOLIC COMPOUNDS FROM CITRUS FRUIT PEELS TO INVESTIGATE ITS ANTIOXIDATIVE PROPERTIES	Participation	NUS Chemistry
CH022	MICROENCAPSULATION OF VITAMIN C USING PLANT-BASED MATERIALS FOR NUTRACEUTICAL APPLICATIONS	Participation	
CH024	QUANTUM COMPUTING IN CHEMISTRY: BENCHMARKING THE PERFORMANCE OF VARIOUS ANSATZES WITH THE VARIATIONAL QUANTUM EIGENSOLVER	Merit	
CH025	PROCESS SIMULATION: SIMULATING THE PRODUCTION OF STYRENE FROM ETHYLBENZENE	Participation	
CH027	EFFECT OF DIFFERENT COOKING METHODS ON THE AMOUNT OF POLYCYCLIC AROMATIC HYDROCARBONS (PAHS) IN SOLANUM TUBEROSUM	Participation	

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CH029	AN INVESTIGATION ON THE EFFECTIVENESS OF PH-RESPONSIVE INDICATORS MADE FROM ANTHOCYANIN FROM BRUISED BLUEBERRIES TO MONITOR THE FRESHNESS OF PRAWNS DURING STORAGE	Participation	
CH030	PRODUCING THE MOST STABLE INVERT SUGAR IN HOME CONDITIONS	Participation	
CH031	INVESTIGATING THE POTENTIAL OF NO ₃ - AS THE INTERLAYER ANION IN LIAL-LDH FOR LITHIUM RECYCLING	Silver	NUS Chemistry
CH033	WASTE TO WATTS: TRANSFORMING KOMBUCHA WASTE INTO ECO-CAPACITORS	Participation	
CH037	PHOTOELECTROCATALYSIS OF ORGANIC SYNTHESIS THROUGH THE USE OF METAL HALIDE PEROVSKITES	Participation	
CH038	SYNTHESISING NOVEL NITROUS OXIDE RELEASING NANOPARTICLES FOR CANCER TREATMENT	Participation	
CH040	COMPARATIVE ANALYSIS OF SYNTHESIS METHODS FOR MAXIMISING SUPERCAPACITIVE PERFORMANCE IN NICO-LAYERED DOUBLE HYDROXIDES	Participation	
CH042	ASSESSING THE ENVIRONMENTAL IMPACT OF GREEN SOLVENTS ON THE PHARMACEUTICAL INDUSTRY	Participation	
CO002	SOLVING THE STRUCTURE OF DENGUE VIRUS SEROTYPE 2 WITH C10 HUMAN ANTIBODY ATTACHED TO IT USING SINGLE PARTICLE ANALYSIS AND MICROGRAPHS BY CRYOGENIC ELECTRON MICROSCOPY (CRYO-EM)	Participation	
CO004	FIGHTING FUTURE PANDEMICS: A NOVEL APPROACH TO IN SILICO DRUG DISCOVERY FOR GLOBAL HEALTH PRIORITY PATHOGEN NIPAH HENIPAVIRUS	Gold	Yale-NUS
CO006	CANCER THERAPEUTICS: IN SILICO SCREENING OF POTENTIAL UBR5 PROTEIN INHIBITORS	Bronze	
CO007	INVESTIGATING CHANGES IN EEG DURING COGNITIVE TASKS IN THE PRESENCE OF ONE'S SMARTPHONE	Merit	
CO008	INVESTIGATING CHANGES IN EEG WHILE PERFORMING DIFFERENT COGNITIVE TASKS	Participation	SAAS
CO010	NOVEL BLOOD BIOMARKERS IDENTIFIED FOR EARLY ALZHEIMER'S DISEASE INTERVENTION USING MACHINE LEARNING MODELS	Silver	
CO013	ICELLSIGHT: AN INTERACTIVE VISUALIZATION TOOL FOR IN-SITU CELLULAR INSIGHTS IN HYPER-PLEX IMMUNOFLUORESCENCE IMAGES	Silver	
CO017	INVESTIGATING THE RELATIONSHIP BETWEEN MICROCLIMATE FACTORS AND HUMAN EXERCISE PERFORMANCE, FROM A CITIZEN SCIENCE PERSPECTIVE	Participation	
CO018	DYNAMIC MODELLING OF TRANSCRIPTIONAL RESPONSE FOR ESTROGEN SIGNALLING IN BREAST CANCER CELLS	Participation	
CO019	ANALYSIS AND MODELLING OF EUTROPHICATION USING SYSTEM DYNAMICS	Gold	
CO020	INVESTIGATING THE EFFECTS OF MICROCLIMATE ON STUDENTS' STRESS AND EMOTIONS USING ELECTRODERMAL ACTIVITY IN QUASI-FORMAL ACADEMIC CONTEXTS IN SINGAPORE	Gold	

Project Code	Project Title	Project Award	Special Award
CO021	IMPROVED DRUG DISCOVERY USING EXISTING COMPUTATIONAL MODELS	Bronze	
CO022	MOLECULAR MECHANISM OF AN HNF1A VARIANT ASSOCIATED WITH TYPE 2 DIABETES RISK	Participation	
EA002	ENHANCED DISSIMILATORY METAL REDUCTION IN MICROBIAL FUEL CELLS VIA ROOT EXUDATE SUPPLEMENTATION WITH ANODIC MEDIUM OPTIMISATION	Participation	
EA005	DETECTING MICROPLASTIC PARTICLES IN DRIED APRICOT PACKETS	Participation	SAAS
EA006	OPTIMIZING LEARNING ENVIRONMENTS: A MICROCLIMATE STUDY OF A SCHOOL CAMPUS IN SINGAPORE USING AN INTEGRATED ENVIRONMENT MODELLER SIMULATION TOOL (IEMSIM)	Participation	
EA007	SENSE OF FOOD RESILIENCE AMONG TEENAGERS IN SINGAPORE	Participation	
EA008	DETECTING MICROPLASTIC PARTICLES IN COMMERCIAL SALT	Participation	
EA010	ADVANCING GLOBAL CLIMATE PREDICTION: NEXT-GENERATION CRYOSPHERIC MODELING WITH JACOBIAN-FREE NEWTON-KRYLOV ILLU- PRECONDITIONED CGS	Bronze	
EE001	INVESTIGATION OF HOW DIFFERENT WASTE MATERIALS CAN BE RECYCLED TO FORM AN EFFECTIVE GLUE	Participation	
EE002	INVESTIGATION OF CITRUS PEEL OIL EXTRACT AS PEST MANAGEMENT	Participation	
EE003	INVESTIGATING THE USE OF EGGSHELLS AS AN ANTIBACTERIAL AGENT AND IN THE REMOVAL OF HEAVY METAL IONS IN WATER	Merit	Loreal Sustainability
EE004	INVESTIGATING THE SYNTHESIS OF PAPER FROM DRIED LEAVES	Participation	
EE005	HARVESTING RAINWATER FOR SUSTAINABLE RINSING OF RECYCLABLES	Participation	
EE007	EFFECTIVENESS OF COCONUT HUSK AS AN ADSORBENT FOR THE BIOREMEDIATION OF NI ²⁺ IONS FROM WATER	Participation	
EE011	IMMOBILISATION OF ENZYMES FOR REMOVAL OF UV FILTERS IN WATER TREATMENT PLANTS	Participation	
EE012	HOW THE PACKING ORIENTATION OF THE CONTENTS IN AN ECO BRICK AFFECTS THE STRENGTH OF THE ECO BRICK	Participation	
EE015	EFFECTIVENESS OF CITRIC ACID (CA)-MODIFIED CELLULOSE ADSORBENT DERIVED FROM RAMBUTAN BIOCHAR FOR ADSORPTIVE REMOVAL OF PARACETAMOL AND TETRACYCLINE IN AQUEOUS SOLUTION	Participation	
EE016	MICROALGAL DHA PRODUCTION THROUGH WASTE UTILISATION	Participation	
EE020	INVESTIGATING THE EFFECTS OF PH IN THE REJECTION OF BORON IN REVERSE OSMOSIS FOR SEAWATER DESALINATION	Gold	

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EE023	COCONUT FIBRE AS AN EFFECTIVE AND REUSABLE BIOSORBENT FOR THE REMOVAL OF EDIBLE OIL FROM WATER	Participation	
EE024	TACKLING PHARMACEUTICAL POLLUTION: JACKFRUIT DERIVED BIOCHAR-ALGINATE COMPOSITE HYDROGEL BEADS AS A NOVEL APPROACH FOR OFLOXACIN REMOVAL	Merit	
EE026	ENVIRONMENTAL BIODEGRADATION OF PLASTIC PACKAGING MATERIALS	Participation	
EE027	COMPARING PERFORMANCE OF MOLASSES TO DIFFERENT CARBON SOURCES FOR MICROALGAE CULTIVATION IN FOOD WASTE DIGESTATE FOR PHYCOBILIPROTEIN AND PROTEIN PRODUCTION	Participation	
EE030	SYNTHESIS OF NOVEL AND SUSTAINABLE BIOSORBENTS FOR WATER PURIFICATION FROM BREAD WASTE	Gold	Amgen, SUTD Cities
EE032	BIOACCUMULATION OF UV FILTERS IN COASTAL FOOD WEB	Participation	
EE033	PHYTOREMEDIATION OF ZINC IN SUNFLOWERS	Merit	
EE034	DEVELOPMENT OF AN ELECTROCHEMICAL REACTOR WITH AN IRON MODIFIED CATHODE FOR WASTEWATER TREATMENT THROUGH THE CONTINUOUS ADSORPTION AND ELECTRO-REGENERATION OF ACTIVATED CARBON	Silver	IES
EE035	UPCYCLING OF SOILED DIAPERS BY ZOPHOBAS MORIO (SUPERWORMS) INTO AMMONIA AND FERTILISER PRODUCTS	Silver	Loreal Sustainability, SUTD Sustainability, SIMTech/ARTC, SAAS
EE040	OPTIMISATION OF CELLULOSE/SODIUM ALGINATE BASED HYDROGEL FOR EFFICIENT ADSORPTION OF COPPER(II) IONS FROM WATER	Participation	
EE041	DEVELOPMENT OF HYDROGEL FOR THE PURIFICATION OF ZINC CONTAMINATED WASTEWATER	Participation	
EE042	RECYCLING PLASTIC WASTE INTO 3D PRINTER FILAMENT	Participation	
EE043	INTEGRATING SEA WALLS INTO OUR FUTURE	Participation	
EE045	BIOPLASTICS: USING FRUITS TO CREATE BIODEGRADABLE FOODWARE	Participation	
EE046	AN INVESTIGATION INTO THE EFFECTS OF USING FRUIT WASTE AS A SUBSTRATE ON THE VOLTAGE GENERATED BY A MICROBIAL FUEL CELL	Participation	
EE049	DEGRADATION OF PET USING PLEUROTUS OSTREATUS UNDER DIFFERENT TEMPERATURE AND HUMIDITY	Participation	
EE052	DETERMINATION OF PHOTOPROTECTIVE CAPABILITIES OF ANTHOCYANIN FOUND IN POMACE	Participation	
EE053	STUDY OF ENHANCEMENT OF CHEMICAL AND PHYSICAL PROPERTIES INFLUENCING OIL ADSORPTION BY HUMAN HAIR	Participation	

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EE057	INVESTIGATING THE FEASIBILITY OF PRODUCING RECYCLED PAPER USING WASTE VEGETABLES	Participation	
ES003	DEEP LEARNING BASED ALGORITHM FOR FREQUENCY ESTIMATION OF NOISY SIGNALS	Participation	SIMTech/ARTC
ES004	WEARABLE TECH	Merit	
ES005	BEYOND OMNIDIRECTIONALITY: INVESTIGATING THE DESIGN AND USE OF CIRCULAR ANTENNA ARRAYS	Participation	
ES006	DISCOVERY OF WAVEGUIDE CROSSINGS VIA A NOVEL INVERSE DESIGN METHODOLOGY.	Participation	
ES007	SURFACE PASSIVATION WITH AL ₂ O ₃ /SiN BILAYER IN ADVANCED GALLIUM NITRIDE HIGH ELECTRON MOBILITY TRANSISTORS (HEMTS)	Participation	
ES009	MOTRIT-GPT: LLMS-BASED INTERACTIVE TOOL FOR MULTILAYER OPTICAL THIN-FILMS RESEARCH	Gold	SAAS
ES013	ENHANCING JUDGEMENT ACCURACY IN TCHOUKBALL THROUGH REAL-TIME BALL DETECTION	Bronze	
ES014	STUDY OF DRIFT AND NOISE REMOVAL MODELS FOR SIGNAL PROCESSING AND ANALYSIS	Participation	
ES015	IOT SYSTEM FOR EFFICIENT HYDROPONICS MAINTENANCE WITH ADAPTIVE RGB LIGHTING SYSTEM	Merit	
ES017	DEEP LEARNING BASED ALGORITHM FOR FREQUENCY ESTIMATION FROM NOISY SIGNALS	Participation	
ES018	WAVEFORM GENERATION WITH FPGA USING DIGITAL SIGNAL PROCESSING TECHNIQUES	Participation	
ES019	INVESTIGATION ON 3D PRINTED MICROWAVE LENS FOR HORN ANTENNA	Participation	
ES020	OPTICAL-BASED WIRELESS COMMUNICATION SYSTEM FOR ROBOTS USE OF NON-IOT-ENABLED LIFTS	Participation	
ET003	DESIGN AND DEVELOPMENT OF DELTA WING WITH LOITERING CAPABILITY	Bronze	SUTD Aviation
ET005	DESIGN OF STRONGER AND MORE DURABLE LIMESTONE-CALCINED CLAY CEMENT (LC3) USING NANO-ADDITIVES	Bronze	
ET007	SMART CAR SHARING IN ON-DEMAND MOBILITY	Silver	
ET010	SMART (SUSTAINABLE, MODULAR, ADDITIVELY-MANUFACTURED, ROBUST, TOWER-STYLE) URBAN FARMING	Gold	Loreal Sustainability, IES, SAAS
ET013	MODELLING THE FREQUENCY-COMPLIANCE DEPENDENCE IN MEMS RESONATORS	Participation	

Project Code	Project Title	Project Award	Special Award
ET014	AERODYNAMIC DRAG AND STABILITY CHARACTERISATION OF A RIGID PARACHUTE	Participation	
ET015	MODELLING OF PLASMA SHEATHS AND ION FLUX DISTORTION AT AN INSULATOR-CONDUCTOR INTERFACE	Merit	
ET016	ELLIPTICAL VORTEX RINGS COLLISION UPON A FLAT WALL	Participation	
ET017	ENGINEERING A LOW COST THERMAL VACUUM CHAMBER FOR CUBESATS BY UTILISING THERMOELECTRIC PLATES	Participation	
ET018	REINVENTING THE FAST FOOD DUSTBIN-LIVING IN A POST COVID-19 WORLD	Participation	
ET019	PIEZOELECTRIC-BASED DEFECT DETECTION METHODS FOR MATERIALS	Participation	
ET023	VORTEX SURFING EFFECTS (POSITIONAL PARAMETERS) ON AERODYNAMIC PERFORMANCE AND STABILITY OF CONVENTIONAL AIRCRAFT IN FORMATION	Participation	SUTD Aviation
ET024	INVESTIGATING THE EFFECTS OF THE ANGLE OF ATTACK OF THE REAR WING OF A SPORTS CAR ON ITS AERODYNAMIC PERFORMANCE	Participation	
EY002	SIMULTANEOUS BIOREMEDIATION OF WASTEWATER AND GENERATION OF ELECTRICITY USING LACCASE ENZYME FROM TRAMETES VERSICOLOR	Bronze	IChemE
EY007	SYNERGISTIC COMBINATION OF $Sb_2Si_2Te_6$ ADDITIVES IN $Bi_{0.4}Sb_{1.6}Te_3$ FOR ENHANCED THERMOELECTRIC WASTE HEAT HARVESTING	Gold	ECS
EY008	SURFACE PLASMON RESONANCE (SPR) SENSOR FOR HYDROGEN LEAKAGE DETECTION	Silver	
EY009	FABRICATION OF MULTIFUNCTIONAL COMPOSITE SUPERCAPACITORS FOR ELECTRICAL AERIAL VEHICLES	Participation	
EY011	ANTHOCYANIN AND CHLOROPHYLLIN PHOTOSENSITIZERS WITH GREEN TEA EXTRACT SYNTHESIZED SILVER NANOPARTICLES ON DYE-SENSITIZED SOLAR CELL (DSSC) EFFICIENCY AS QUANTIFIED THROUGH OUTPUT VOLTAGE.	Bronze	
EY012	INVESTIGATING KOOLFEVER AS AN ALTERNATIVE HEAT SINK TO OPTIMISE THERMOELECTRIC TECHNOLOGY TO POWER WEARABLE DEVICES	Merit	SAAS
EY013	COMPUTATIONAL ENERGY MODELLING FOR OPTIMISATION OF HVAC SYSTEMS IN SINGAPORE CLIMATE	Participation	JDF
EY014	HOW DOES CYANIDIN, OBTAINED THROUGH ANTHOCYANIN EXTRACT FROM ARONIA MELANOCARPA, WHEN EXPOSED TO DIFFERENT PH LEVELS (4,5,6,7,8,9&10) AFFECT ITS EFFICIENCY AS A DYE IN A DYE SENSITIZED SOLAR CELL?	Bronze	
EY015	INCREASING THE EFFICIENCY OF THE SAVONIUS TYPE TURBINE WITH A COMBINED DESIGN	Silver	SIMTech/ARTC
EY016	DEVELOPMENT OF "GREEN" MICROBIAL FUEL CELL WITH IRON-BASED MEDIATOR	Participation	ECS
EY017	HIGH EFFICIENCY POLYMER SOLAR CELLS	Gold	SUTD Cities, IChemE, ECS

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EY020	PHASE CHANGING THE WORLD: USING BEESWAX-CORN OIL MIXTURES AS A PHASE CHANGE MATERIAL FOR INDOOR THERMAL REGULATION	Participation	JDF
EY021	INVESTIGATING THE EFFECT OF SOLVENT TYPE AND SOLVENT RATIO ON LIPID YIELD FROM CHAETOMORPHA LINUM USING SOLVENT EXTRACTION	Participation	
EY022	SUSTAINABLE SYNTHESIS OF MIXED METAL MOFS CATALYSTS USING MECHANOCHEMISTRY	Participation	
EY023	EFFECT OF MICROCRYSTALLINE CELLULOSE (MCC) FROM SUGARCANE ON THE TENSILE STRENGTH OF CORNSTARCH AND CARROT-BASED BIOPLASTIC	Participation	
EY028	INVESTIGATION OF THE EFFECT OF NATURAL ELECTRON MEDIATORS ON THE PERFORMANCE OF MICROBIAL FUEL CELLS	Silver	Amgen, SIMTech/ARTC
MA001	FUELING THE CHALLENGE	Participation	
MA002	INVESTIGATION OF THE FUNDAMENTAL FREQUENCY OF THE SPEAKING VOICES OF SINGAPOREAN ADOLESCENTS	Participation	
MA005	TRISECTING TRIANGLES	Participation	
MA010	NEW SIMPLE PASSWORD-AUTHENTICATED KEY EXCHANGE (SPAKE) FORMALISMS AND SECURITY PROOFS IN THE BELLARE-ROGAWAY GAME PLAYING MODEL	Participation	
MA012	THE AUGMENTED BINARY TREE RECONSTRUCTION PROBLEM: NEW ALGORITHMS AND DIRECTIONS	Participation	
MA013	A FIRST LOOK AT THE DECISIONAL WEIGHTED BALLS-INTO-BINS PROBLEM	Participation	
MA014	PHYSICAL ACTIVITY AMONG YOUTHS	Participation	
MA018	FOURIER SERIES REGRESSION AND STOCHASTIC OPTIMIZATION OF NOISY DISCRETE FUNCTIONS	Participation	
MA019	MODELLING OF CARPARK ARRIVAL STATISTICS AND ITS IMPLICATIONS ON ELECTRONIC VEHICLE CHARGING	Participation	
MA020	ELEGANT RESULTS INVOLVING CHEBYSHEV'S POLYNOMIALS	Bronze	SMS
MA022	ALGEBRAIC SOLUTIONS TO EXTENSIONS OF APOLLONIUS' PROBLEM IN 3D	Participation	Yale-NUS, SAAS
MA023	OPTIMIZING NATURAL NUMBER REPRESENTATION VIA PAN BALANCE MECHANISMS	Participation	Yale-NUS, SMS
MA028	EXPRESSING THE \sqrt{p} IN TERMS OF A SUM OF TRIGONOMETRIC FUNCTIONS	Participation	SMS
MA029	A GALTON BOARD'S EFFECTIVENESS IN PREDICTING WHERE FALLEN OBJECTS LAND IN WATER	Participation	

Project Code	Project Title	Project Award	Special Award
MA030	DEVELOPING AN AUTOMATIC SYLLOGISM EVALUATOR	Participation	
MA031	GENERALISING REFLECTION OF FUNCTIONS ABOUT LINES, CURVES AND SURFACES	Bronze	SMS
MI001	YEAST-BASED HIGH-THROUGHPUT SCREENING OF PLASMODIUM FALCIPARUM PHOSPHODIESTERASE BETA (PDEB) FOR MALARIA DRUG DISCOVERY	Gold	
MI002	EFFECTS OF PREBIOTICS ON LACTOBACILLUS	Participation	
MI005	EFFECT OF CARBON SOURCES ON THE PRODUCTION AND PROPERTIES OF BIOCELLULOSE USING ACETOBACTER XYLINUM	Participation	
MI008	CONCOCTING EFFECTIVE PHAGE COCKTAILS AGAINST ACINETOBACTER BAUMANNII FROM SINGAPORE'S SEWAGE	Bronze	SAAS
MI009	SYNTHESIS OF WOUND HEALING PRODUCT USING ANTIBACTERIAL & ANTIOXIDANT PEPTIDES EXTRACTED FROM TYPES OF EXPIRED MILK BY ENZYMATIC METHODS	Participation	
MI010	ZNO NANO-SPIKY BALLS FOR ANTIFOULING: THE MORPHOLOGY DEPENDENT ANTIFOULING ACTIVITY OF ZNO NANOPARTICLES	Silver	
MI011	MICROBIOME COMPOSITION OF BEEF, CHICKEN AND FISH REFRIGERATED FOR DIFFERENT DURATIONS AS ASSESSED BY 16S RIBOSOMAL RNA METAGENOMICS	Participation	
MI012	INVESTIGATING NOVEL PHAGE RESISTANCE AND MUTATION IN MYCOBACTERIUM ABSCESSUS	Participation	
MI015	INVESTIGATING THE PROTECTION AND EXCLUSION IN INCP PLASMIDS	Participation	
MI017	BIOVALORISATION OF LEFTOVER RICE FOR DEVELOPMENT OF A PROBIOTIC FERMENTED BEVERAGE	Merit	
MI019	NOVEL NEXT-GEN ENGINEERED PHAGE-PHOTOSENSITISERS: A GOLDEN OPPORTUNITY AGAINST MULTI-DRUG RESISTANT PSEUDOMONAS AERUGINOSA	Gold	SSMB
MS001	LEAVING NO CRUMBS: LASER-ENABLED UPCYCLING OF SILICA IN RICE HUSK ASH FOR NOVEL APPLICATIONS IN CHEMICAL SENSING AND PHOTONIC CIRCUITRY	Bronze	
MS002	2D QUANTUM MATERIALS GROWTH, CHARACTERISATION AND ANALYSIS BY PYTHON PROGRAMMING	Participation	
MS004	INVESTIGATING THE USE OF MUSHROOMS TO MAKE ANTIMICROBIAL HYDROGELS FOR PLASTERS	Participation	
MS006	INK-R-EDIBLE CRICKETS: EFFECT OF AIR-FRYING TREATMENT ON THE PROPERTIES OF DIRECT INK WRITING 3D PRINTED CRICKET PRODUCTS	Participation	SAAS
MS010	IMPACT OF VARIED CONCENTRATION OF NAOH ON WATER ABSORPTION OF AEROGEL	Participation	
MS013	INVESTIGATING DIFFUSION OF AL3+ IONS IN HYDROGEL FOR 3D PRINTING	Participation	

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MS015	INVESTIGATING THE EFFECTS OF SODIUM ALGINATE CONCENTRATION AND TAPIOCA FLOUR MASS ON HYDROGEL PROPERTIES AND ITS IMPLICATIONS FOR 3D FOOD PRINTING	Participation	
MS016	MAGNETIC AND ELECTRICAL PROPERTIES OF NON-COLLINEAR ANTIFERROMAGNETIC MN-BASED THIN FILMS	Participation	
MS017	IN-HOUSE PRODUCTION AND MODIFICATION OF BIOCELLULOSE	Bronze	
MS018	HAEMA-LIGHTS: LASER INITIATED SITE-SELECTIVE FORMATION OF AG-FE ₂ O ₃ COMPOSITES FOR ELECTRON DETECTION	Gold	
MS020	UTILISING CHAOTROPIC HOFMEISTER IONIC EFFECT TO ACHIEVE HIGH PRECISION 3D PRINTING OF HIGH-CONTENT GELATIN BIO-INK	Silver	
MS021	DEVELOPMENT OF INSECT PROTEIN FORMULATIONS FOR 3D PRINTING AND CASTING OF DYSPHAGIA-FRIENDLY FOOD PRODUCTS	Bronze	
MS024	INVESTIGATION ON EGGSHELL POWDER AS AN INORGANIC FILLER IN POLYETHYLENE COMPOSITES	Participation	NUS Chemistry, SUTD Sustainability
MS025	COST-EFFECTIVE VISCOSITY INVESTIGATION OF 3D PRINTABLE FOOD INK USING VERTICAL FALLING BALL VISCOMETER	Participation	
MS026	ADSORPTION BEHAVIOUR OF CATIONIC AND ANIONIC DYES BY BIOCHAR DERIVED FROM LONGAN PEELS	Participation	
MS028	ENGINEERING PHASE TRANSFORMATION BEHAVIOUR IN THE 4D PRINTING OF NI-TI SHAPE MEMORY ALLOYS	Gold	JDF
MS030	PROCESSING THERMOSETS INTO REUSABLE THERMOPLASTICS BY HYDROLYTIC CONVERSION USING METHACRYLIC ANHYDRIDE AS A CLEAVABLE CROSSLINKER	Participation	
MS034	INVESTIGATING TANNIN AND GELATIN MULTILAYERS AND MICROCAPSULES	Bronze	
MS035	MULTINARY METAL CHALCOGENIDE NANOSTRUCTURES FOR THERMOELECTRIC APPLICATIONS	Bronze	NUS Chemistry
MS036	3D FOOD PRINTING FOR SUSTAINABILITY	Participation	
MS038	DIFFERENTIAL SYNTHESIS AND PERFORMANCE EVALUATION OF METAL CHALCOGENIDES FOR ENERGY APPLICATIONS	Participation	
MS043	POWER SUPPLY SYSTEM FOR SMART CONTACT LENS	Participation	
MS053	DESIGN OF STRONGER AND MORE SUSTAINABLE CONSTRUCTION MATERIALS WITH THE ADDITION OF GRAPHENE NANO-ADDITIVES	Participation	
MS055	SYNTHESIS OF ER, LA, YB-DOPED ZINC OXIDE THIN FILMS WITH UPCONVERSION PROPERTIES FOR ENERGY-SAVING SMART WINDOW APPLICATIONS	Participation	
MS058	CONVERTING FOOD WASTE INTO WOOD PASTE FOR ADDITIVE AND SUBTRACTIVE MANUFACTURING	Silver	

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MS060	EXTRACTION OF CELLULOSE FROM DRAGON FRUIT PEEL	Participation	
MS061	INVESTIGATION OF PROTEIN CRYSTALLISATION USING PRECISION ELLIPSOMETRY	Participation	NUS Chemistry
MS062	EXPLORATION OF THE ELECTRONIC STRUCTURE MODIFICATION IN LANTHANUM CHROMITE INDUCED BY V DOPING: A FIRST-PRINCIPLES STUDY	Participation	
MS063	PROVIDING A MORE SUSTAINABLE ALTERNATIVE TO NYLON FISHING NETS FOR FISHERMEN	Participation	
MS064	MAGNETO-IMPEDANCE SPECTROSCOPY OF LIQUIDS AND GELS	Silver	
MS065	ZAPRESSO: COFFEE GROUNDS FOR A SUSTAINABLE BATTERY ANODE	Participation	
PH003	DESIGN OF FLAT LENS WITH PRINTED CIRCUIT BOARD (PCB) FABRICATION TECHNOLOGY	Participation	SUTD Multi-disciplinary
PH006	THE MECHANICS OF SWIRLING GRANULAR MATTER	Merit	
PH011	ACOUSTIC ANALYSIS OF THE PITCH AND TIMBRE OF THE SOUND PRODUCED BY A SIREN DISK	Gold	
PH013	TUNING THE PHASE TRANSITION CHARACTERISTICS OF VO ₂ VIA ION IRRADIATION	Participation	
PH015	DIFFRACTION AND INTERFERENCE OF LIGHT IN OPTICAL DISCS UNDER A FILAMENT LAMP	Participation	
PH017	EXPLORING QUANTUM DYNAMICS: FINE CONTROL OF SUPERCONDUCTING QUBITS	Participation	
PH019	MODAL FREQUENCIES IN A NONLINEAR BEAM-MAGNET COUPLED OSCILLATOR SYSTEM	Gold	
PH020	COMPREHENSIVE MODELLING AND DYNAMICAL ANALYSIS OF MAGNETIC BRAKING IN ROTATING CONDUCTIVE SPHERES FOR SPACE DEBRIS MITIGATION	Gold	
PH021	EXPERIMENTAL ANALYSIS ON SHAPE OF A VISCOUS LIQUID FALLING THROUGH A RECTANGULAR ORIFICE	Participation	
PH022	PRECESSION, NUTATION AND DYNAMIC TRAJECTORY OF A MAGNETIC ROD IN AN AXISYMMETRIC MAGNETIC FIELD	Gold	Yale-NUS
PH023	ROTATIONAL OSCILLATORS AND THEIR USE IN PRECISION ELLIPSOMETRY	Participation	
PH024	PATTERNS OF FLOATING DROPLETS EXCITED WITH FARADAY WAVES	Gold	Yale-NUS
PH027	RADIOACTIVE DICE EXPERIMENT AND HALF-LIFE	Participation	

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PH028	PROPERTIES OF CYLINDRICAL MIRROR	Participation	
PH030	ULTRASHORT HOLOGRAPHIC PROJECTION USING METASURFACE AND COLOR MIXING	Participation	
PH032	DEVELOPMENT OF CONE PRISM CAMERA TECHNOLOGY	Participation	
PH033	INVESTIGATING THE ACCURACY OF PHASE RETRIEVAL ALGORITHMS USING IMAGE REGISTRATION UNDER NOISY CONDITIONS	Participation	
PH034	A COMPARISON BETWEEN THE LIGHT DISTRIBUTION ON CYLINDRICAL MIRRORS AND WAVE GUIDE	Participation	
PH036	TRANSLATION OF VORTEX RINGS NEAR SOLID BOUNDARIES	Participation	
PH039	INVESTIGATING CHARACTERISTICS OF MAGNETIC GEAR DYNAMICS UNDER SLIPPING AND CRITICAL TORQUE REGIMES	Participation	
PH043	AUTOMATING THE DEVELOPMENT OF PLASMA SIMULATIONS VIA LANGUAGE MODELS	Participation	
PH045	QUBIT DYNAMICS SIMULATION AND OPTIMAL CONTROL	Merit	
PH046	MACHINE LEARNING OPTIMISATION IN A NOVEL HIGH NUMERICAL APERTURE QUANTUM INTERFEROMETER	Silver	
PH047	COMPONENTS OF TEA ANALYSED BY PRECISION ELLIPSOMETRY	Participation	
PH048	A TUNEABLE WAVEGUIDE REFLECTARRAY FOR RADIATION & SCATTERING EXPERIMENTS	Bronze	
PH051	DEVELOPING LIGHT SOURCE FOR ULTRA-HIGH SPEED PHOTOGRAPHY	Participation	
PH052	OPTIMISED NUMERICAL METHODS FOR THE COMPUTATION OF PARTICLES IN FUSION HOTSPOTS AND PARTICLE INTERACTIONS IN MAGNETISED LINER INERTIAL FUSION (MAGLIF)	Gold	SAAS
PS001	ROLE OF ERF 114 AND 115 TRANSCRIPTION FACTOR IN SALT TOLERANCE OF ARABIDOPSIS	Participation	
PS009	MODIFYING SOIL TO DECREASE WATERLOGGING	Participation	
PS016	IMPACTS OF FOOD WASTE-BASED FERTILISERS ON THE GROWTH OF GREEN BEAN PLANTS	Participation	
PS019	INVESTIGATION OF THE EFFECTS OF VARYING WAVELENGTHS OF LIGHT ON THE GROWTH OF ORYZA SATIVA VIA HYDROPONIC FARMING	Participation	
PS022	EFFECT OF DIFFERENT LED LIGHTS COLOUR COMBINATIONS ON B-CAROTENE CONTENT AND ANTIOXIDANT ACTIVITY OF RED SPINACH	Silver	

Project Code	Project Title	Project Award	Special Award
PS023	ALGROW: A HOMEMADE SEAWEED-BASED BIOSTIMULANT	Silver	
PS024	EFFECT OF FOLIAR APPLICATION OF CHELATED CALCIUM COMPOUNDS IN TREATING CALCIUM DEFICIENCY IN JERICHO LETTUCE	Participation	
PS026	INVESTIGATION ON THE OPTIMAL LIGHT CONDITION FOR PLANT GROWTH AND ENERGY EFFICIENCY IN VERTICAL FARMING	Participation	SAAS
PS029	DEVELOPING A FLOATING PLANTER FOR LOCAL PRODUCE AND WATER SECURITY	Participation	
PS030	DETERMINING THE OSMOTIC STATUS OF THE SHOOT APICAL MERISTEM	Participation	
PS033	EVALUATING THE FEASIBILITY OF AFFORDABLE ORCHIDACEAE TISSUE CULTURE USING HOUSEHOLD SPICES FOR MOULD INHIBITION	Participation	
PS036	ANALYSIS OF DIFFERENTIALLY EXPRESSED GENES IN SAPOTACEAE RIPENING	Gold	
PS037	INVESTIGATING THE EFFECT OF DIFFERENT CELLULOSE CONCENTRATIONS IN A HYDROGEL ON RATE OF PLANT GROWTH	Participation	
PS038	INVESTIGATING THE EFFECTS OF COLOUR OF LIGHT ON THE GROWTH OF BROCCOLI AND KAILAN MICROGREENS	Participation	
PS039	INVESTIGATION OF THE EFFECT OF HYDROCHAR, USING HYDROTHERMAL CARBONIZATION(HTC) ON THE ANTIOXIDANT AND BETA-CAROTENE CONTENT IN BROCCOLI AND RED SPINACH MICROGREENS	Participation	
RO001	SORTING SENTIMENTS OF HOTEL REVIEWS THROUGH MACHINE LEARNING	Participation	
RO002	DEVS: ZERO-SHOT AI-GENERATED TEXT DETECTION VIA SUMMARISATION	Bronze	
RO003	CAN LLMs HAVE A FEVER? INVESTIGATING THE EFFECTS OF TEMPERATURE ON LLM SECURITY	Bronze	
RO004	DEVELOPMENT OF AN INTELLIGENT SURGICAL TOOLS CHECKER USING IMAGE PROCESSING AND DEEP LEARNING	Participation	
RO005	FINDING PATTERNS IN JOB ADVERTISEMENTS AND SKILL DESCRIPTIONS TO PERFORM MAPPING USING TEXT MINING ALGORITHMS	Participation	
RO007	STATE SPACE MODELS ARE ALL YOU NEED	Gold	SUTD AI
RO008	DEVELOPMENT OF A LOW-COST ROBUST AUTONOMOUS APPROACH TO MODERN CAMPUS SECURITY	Merit	
RO009	DATA-DRIVEN FLOOD PREDICTION USING DRAIN CAPACITY FORECASTING: A SINGAPORE CASE STUDY	Participation	
RO011	CHAT, IS THIS REAL? MM-DOUBLE CONFIRM! : A MULTIMODAL NETWORK FOR SINGAPORE-CONTEXT MISINFORMATION DETECTION	Silver	SUTD Multi-disciplinary, Yale-NUS, SAAS

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RO015	HYPERPARAMETER OPTIMISATION OF VISION TRANSFORMERS (VITS) TO IDENTIFY MALIGNANT COLORECTAL TUMOURS	Participation	
RO019	EDMAL - ENHANCED DETECTION OF AI GENERATED TEXT USING MACHINE LEARNING	Silver	
RO020	DETECTION OF HANDWRITTEN MATHEMATICAL EXPRESSIONS VIA DEEP LEARNING APPROACHES	Participation	
RO021	EVALUATION OF DRONE DETECTION TECHNOLOGIES	Participation	
RO022	CAN ARTIFICIAL INTELLIGENCE AUTOMATICALLY DETECT HUMAN ACTIVITY: APPLICATIONS IN BADMINTON.	Participation	
RO025	DATA-DRIVEN DRONES: AN ANALYSIS OF LARGE LANGUAGE MODELS IN REINFORCEMENT LEARNING FOR DRONES	Bronze	
RO027	DEVELOPMENT OF A MACHINE LEARNING INTELLIGENT SYSTEM OF NYSTAGMUS DETECTION FOR PARKINSON'S DISEASE SCREENING	Bronze	SIMTech/ARTC
RO032	TRANSPOSABLE TREES - A NOVEL MACHINE LEARNING APPROACH FOR PREDICTING BIOLOGICAL RESPONSES OF NANOPARTICLES	Participation	
RO033	CHRONOCROP: MONITORING CROP GROWTH USING A.I.	Bronze	
RO034	VISIONVOYAGE: A LOW-COST RELIABLE AI INTEGRATED SMART CANE	Bronze	
RO040	AN EXPLORATION OF MACHINE LEARNING AND REINFORCEMENT LEARNING FOR EMOTIONAL WELL-BEING	Participation	
RO041	OPTIMISING SATELLITE-BASED QUANTUM COMMUNICATION: SINGAPORE CLOUD COVER ANALYSIS AND MACHINE LEARNING FORECASTING	Participation	
RO044	ENHANCING MILD COGNITIVE IMPAIRMENT (MCI) DETECTION WITH DEEP LEARNING IN DIGITAL CLOCK DRAWING TESTS ON CONSUMER PLATFORMS	Participation	
RO045	PERCHING MECHANISM FOR DRONES	Participation	SIMTech/ARTC
SS003	ARTIFICIAL INTELLIGENCE FOR STUDENT'S SELF-DIRECTED LEARNING OF TITRATION EXPERIMENTS	Silver	
SS005	WHAT'S UNDER THE HOOD? ROOT CAUSE AND PATCH ANALYSES OF ELEVATION OF PRIVILEGE VULNERABILITIES IN THE WINDOWS OPERATING SYSTEM	Silver	
SS006	BEYOND PIXELS: ENHANCING IMAGE INPAINTING THROUGH MULTI-RESOLUTION PROCESSING WITH SELECTIVE SCALING AND ADVANCED BLENDING APPROACHES	Bronze	
SS007	NEW OPTIMAL ALGORITHMS FOR COMPUTING BINARY TREE OVERCOVERS IN RANGE SEARCHABLE ENCRYPTION	Participation	
SS009	VOLUME-HIDING DICTIONARY ENCRYPTION: NEW SCHEMES AND BENCHMARKING RESULTS	Bronze	

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SS013	INVESTIGATING THE USE OF A STYLOMETRY-BASED ALTERNATIVE TO DETECT AI-GENERATED & AI-PARAPHRASED TEXT	Merit	
SS014	DEVELOPMENT OF AN INTELLIGENT SYSTEM FOR MONITORING BIRDS' HEALTH IN THE NEW MANDAN BIRD PARK	Participation	
SS017	INVESTIGATION OF PLANT HEALTH IN AGRITECH AND GREEN SPACES VIA IMAGE PROCESSING	Participation	SIMTech/ARTC
SS018	MACHINE LEARNING TO EXTRACT PLASMA EMISSION SPECTRUM DATA FROM LASER FUSION IN METAL 3D PRINTERS	Participation	SUTD AI, SAAS
SS021	USING THE PARTICLE SWARM OPTIMISATION ALGORITHM FOR THE TRAVELLING SALESMAN PROBLEM & ITS APPLICATION IN ROUTING OPTIMISATION FOR E-WASTE COLLECTION	Silver	
TM001	EX VIVO EXPANSION OF NON-MOBILISED PERIPHERAL BLOOD HEMATOPOIETIC STEM CELLS: A NOVEL PROTOCOL FOR THERAPEUTIC PURPOSES	Participation	
TM004	INHIBITION OF GENE F1 IN MM CELLS USING ASOS: A POTENTIAL THERAPEUTIC STRATEGY	Merit	Amgen
TM006	A STUDY OF ATTENTION IN ADOLESCENTS USING FUNCTIONAL NEAR INFRARED SPECTROSCOPY	Merit	
TM010	EEG-BASED COMPARISON OF THE EFFECTS OF NON-SLEEP DEEP REST TECHNIQUES AND POWER NAPS ON COGNITIVE PERFORMANCE AND SUBJECTIVE WELL-BEING	Participation	
TM011	NANOPARTICLE FORMULATION FOR INFLAMMATION CONTROL AND SKIN REGENERATION FOR ECZEMA TREATMENT	Bronze	
TM012	THE AGGREGATION BEHAVIOUR OF STAPHYLOCOCCUS AUREUS PHENOL-SOLUBLE MODULINS (PSMAS) IN DIFFERENT PHYSIOLOGICAL CONDITIONS: EXPLORING NOVEL AGENTS FOR MODULATING BIOFILM FORMATION	Silver	
TM013	UTILISING THERMOSTABLE BINDERS FOR POINT-OF-CARE DETECTION OF AFRICAN SWINE FEVER VIRUS	Gold	SAAS