

2018 SATU Joint Research Scheme Projects List

Code	Principal Investigator (PI)	Co-PI from same unit	Host Unit	Project Title and Project Details hyper link for Gmail users	Hyper link of Project Details for non-Gmail users
UM 1	Profesor Dr. Saad Mekhilef	Profesor. Ir. Dr. Hazlie Mokhlis	Electrical Engineering	Modified incremental conductance MMPT Technique for Photovoltaic System under Fast Varying Solar Irradiation and Load Resistance	https://mybox.ncku.edu.tw/navigate/s/7899FC14BE594618BDB3110780FD5389 GSY
UM 2	Dr. Lai Chin Wei	Professor Dr. Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	Anti-reflective coatings on multi-crystalline silicon solar cells	https://mybox.ncku.edu.tw/navigate/s/83B1F3BAD14D43FE8BFF0E90BB401B37GSY
UM 3	Dr. Lai Chin Wei	Professor Dr. Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	Remediation of wastewater using an advanced photocatalysis oxidation process	https://mybox.ncku.edu.tw/navigate/s/29FB3A0DFD194340A876286676706D28GSY
UM 4	Dr. Lai Chin Wei	Professor Dr. Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	New visible-light active semiconductors for solar driven water splitting	https://mybox.ncku.edu.tw/navigate/s/5C790A495B9845948A04B9F55D5A43B9GSY
UM 5	Profesor Ir. Dr. Ching Yern Chee	Mohd Abdul Cader Mohd Haniffa	Department of Chemical Engineering, Faculty Of Engineering	Development of Aeronautic Composites Utilizing Biobased Resin Polymer	https://mybox.ncku.edu.tw/navigate/s/A46F9F486EB747D8869B5A8F3658066CGSY
UM 6	Profesor Ir. Dr. Ching Yern Chee	Thennakoon Mudiyanselahe Sampath Udeni Gunathilake	Department of Chemical Engineering, Faculty Of Engineering	Micro and Nano-Porous Cellulose based Composite Materials Prepared by Environmental Friendly Processes	https://mybox.ncku.edu.tw/navigate/s/3B43C1B4A3194070A110F2AEF345EDDDGSY
UM 7	Profesor Ir. Dr. Ching Yern Chee	Dr. Nur Awanis Hashim	Department of Chemical Engineering, Faculty Of Engineering	Microstructural and Rheological Properties of Nanocellulose Based Biopolymer Composites	https://mybox.ncku.edu.tw/navigate/s/2172528EECBF427D9A33888B588D1879GSY
UM 8	Ir. Dr. Wong Yew Hoong	Associate Prof. Dr. Tan Chou Yong	Department of Mechanical Engineering, Faculty Of Engineering	High-k Gate Dielectric on Semiconductor Substrate	https://mybox.ncku.edu.tw/navigate/s/2967FFF6D9424B518E508FAC1BE72953GSY

UM 9	Dr. Choo Yeun Mun	N/A	Department of Chemistry, Faculty of Science	<u>Discovery of potent CYP51 and Lactate Dehydrogenase Inhibitors from Malaysia Traditional Medicinal Plants and Development of Their Nano-Transdermal Carrier</u>	https://mybox.ncku.edu.tw/navigate/s/962CBBF722F24B0385D8A4288535AB19GSY
UM 10	Dr. Huang Chih-Chia	Prof. Dr. Harith Ahmad	Department of Photonics, College of Sciences	<u>Design of compact, low cost UV Laser System For Water Purification</u>	https://mybox.ncku.edu.tw/navigate/s/83A83D21338B4B65BD9A7F5CEBFDD52FGSY
		Dr. Mohd Zamani Zulkifli			
UM 11	Dr. Azman Ma'amor	Dr. Nor Saadah Binti Mohd Yusof	Department of Chemistry, Faculty of Science	<u>Synthesis of nano-hydroxyapatite from natural clamshell using optimized sonochemical method for biomedical applications</u>	https://mybox.ncku.edu.tw/navigate/s/927C094B97804356AE12B7CD2FECAF3DGSY
UM 12	Dr. Nurhidayatullaili Muhd Julkapli	Dr. Wageeh Abdulhadi Yehya Dabdawb	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Development on nanocellulose conjugated gold drug delivery system for cancer treatment application</u>	https://mybox.ncku.edu.tw/navigate/s/DCC05D83FD734459B941BCBA4315FF25GSY
UM 13	Dr. Nurhidayatullaili Muhd Julkapli	Dr. Zaira Zaman Chowdhury	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Highly oil dispersed functionalized graphene based Nano composites as Lube Oil Friction Modifier: Lubricity and Tribology Studies</u>	https://mybox.ncku.edu.tw/navigate/s/A0A19F9140AC465B92D75B7D817C599AGSY
UM 14	Dr. Nurhidayatullaili Muhd Julkapli	Dr. Azman Maamor	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Solar driven Graphene oxide-gold grafted photocatalysts: An efficient photodegradation of Pollutant organic compounds (POPs)</u>	https://mybox.ncku.edu.tw/navigate/s/429B68B7D5644163AD1776D3ACD0399AGSY
UM 15	Dr. Nurhidayatullaili Muhd Julkapli	Dr. Wageeh Abdulhadi Yehya Dabdawb	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Fabrication of coordination gold-graphene composite by laser deposition technique for cancer treatment application</u>	https://mybox.ncku.edu.tw/navigate/s/D931151513C74D5F968BA058EBC41FC7GSY
UM 16	Profesor Madya Dr. Juan Joon Ching	Profesor Dr. Mohd Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Photocatalysis of Native and Modified Mesoporous Titania</u>	https://mybox.ncku.edu.tw/navigate/s/6F73E1D7A4464CD290AB604E7183D323GSY
UM 17	Dr. Yasmin Abdul Wahab	Profesor Dr. Mohd Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Laser-Scribed Graphene (LSG) MEMS for Intracranial Pressure (ICP) Sensor</u>	https://mybox.ncku.edu.tw/navigate/s/40CD77C5DED641CB883EBD3BA796F02AGSY

UM 18	Dr. Nor Aliya Binti Hamizi	Profesor Dr. Mohd Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Fundamental studies of Laser Properties of Mn-doped Cadmium Selenide Quantum Dots</u>	https://mybox.ncku.edu.tw/navigate/s/4DBE70809735423380BA93B21D85D43AGSY
UM 19	Dr. Zaira Zaman Chowdhury	Profesor Dr. Mohd Rafie Johan	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Toxicological Assays, Anti-Microbial Studies And Catalytic Degradation of Organic Solvents using Hybrid Nano-cellulose (NCC) composites</u>	https://mybox.ncku.edu.tw/navigate/s/DCE437EA77EB4F1E95B84F8A31D6448AGSY
UM 20	Dr. Lee Hwei Voon	Profesor Madya Dr. Juan Joon Ching	Nanotechnology & Catalysis Research Centre (NANOCAT)	<u>Catalytic transformation of biomass into biochemicals</u>	https://mybox.ncku.edu.tw/navigate/s/F2ECF5F9CE014991A8463284A3DFE2E1GSY
UM 21	Professor Ir. Dr. Yau Yat Huang	N/A	Department of Mechanical Engineering, Faculty Of Engineering	<u>Stratum Ventilation (SV) Installed With A VRF/VRV System for Larg High-Rise Buildings In The Tropics</u>	https://mybox.ncku.edu.tw/navigate/s/5A7C38D1CDE442C8856743BCBC115238GSY
UM 22	Dr. Ong Hwai Chyuan	Profesor Ir. Dr. Masjuki Bin Haji Hassan	Department of Mechanical Engineering, Faculty Of Engineering	<u>Conversion of Biomass to value added Biochar via Pyrolysis Process</u>	https://mybox.ncku.edu.tw/navigate/s/54E22CE61C094DFCB4BDB9E3C3D3B102GSY
UM 23	Dr. Low Kah Hin	Dr. Tay Kheng Soo	Department of Chemistry, Faculty of Science	<u>Deriving Polycarbonate-based Sorbent From Waste Optical Disc</u>	https://mybox.ncku.edu.tw/navigate/s/0CA0BFC3E2F543C698395C4945D2B113GSY
UM 24	Dr. Tay Kheng Soo	Prof. Dr. Sharifuddin Bin Md Zain	Department of Chemistry, Faculty of Science	<u>Arduino open Source platform to stimulate chemistry students creativity in Industry 4.0</u>	https://mybox.ncku.edu.tw/navigate/s/66EDB52A669D4A7E982CDF4F32120ECCGSY
UM 25	Dr. Tay Kheng Soo	N/A	Department of Chemistry, Faculty of Science	<u>The Fate of Micropollutants in Advanced Oxidation Processes</u>	https://mybox.ncku.edu.tw/navigate/s/DB54A74E027F4D5695F8BC28A4E3AC09GSY
UM 26	Associate Prof. Dr. Chong Wen Tong	Profesor Ir. Dr. Masjuki Bin Haji Hassan	Department of Mechanical Engineering, Faculty Of Engineering	<u>Design Optimization, Fabrication and Testing of a Power-Augmented Cross-Axis-Wind-Turbine (CAWT)</u>	https://mybox.ncku.edu.tw/navigate/s/104A7BA964F047F685506367513CB79EGSY

UM 27	Associate Prof. Dr. Chong Wen Tong	Profesor Ir. Dr. Masjuki Bin Haji Hassan	Department of Mechanical Engineering, Faculty Of Engineering	<u>Design, Testing and Optimization of a hybrid wind-solar-rain eco-roff system</u>	https://mybox.ncku.edu.tw/navigate/s/549982718C1E48FF9237083845754C5EGSY
UM 28	Dr. Lee Yean Kee	Profesor. Dr. Noorsaadah Abd Rahman	Department of Chemistry, Faculty of Science	<u>Synthesis, biological application and SAR of oxadiazepines</u>	https://mybox.ncku.edu.tw/navigate/s/747185EC2F894FAE95E21794AB84707AGSY
UM 29	Associate Prof. DR. Farazila Yusof	N/A	Department of Mechanical Engineering, Faculty Of Engineering	<u>Investigation on flow field and thermal performances of functionally graded metal foam</u>	https://mybox.ncku.edu.tw/navigate/s/D99EFF543B5D44A6B4738E4A1D671C5AGSY
UNAIR 1	Abdul Rohim Tualeka	Tri Martiana	Magister Occupational Health and Safety	<u>Effective Dose of Rich Enzyme Detoxifications (CYP2E1 Enzyme and Glutathione) in Benzene Causes Leukemia in Shoe Industry Workers</u>	https://mybox.ncku.edu.tw/navigate/s/5C37BB43E3A44007A58DCDDBB1764400GSY
UNAIR 2	Andang Miatmoko	Juni Ekowati	Department of Pharmaceutics, Faculty of Pharmacy	<u>Preparation of Liposome Loading Edrulic Acid and Evaluation of Its Antitumor Efficacy</u>	https://mybox.ncku.edu.tw/navigate/s/D63B8B4A5E8F46A4AA6291441A3AFB02GSY
UNAIR 3	I Gusti Aju Wahyu Ardani	Indeswati Diyatri	Department of Orthodontic, Faculty of Dentistry	<u>Early Diagnosis and Preventive Care in Skeletal Class II Malocclusion Case with Mandibular Micrognathia</u>	https://mybox.ncku.edu.tw/navigate/s/AE4F262D1AF84B80BCF54C55BC8A1626GSY
UNAIR 4	Josephine Sri Wulan Manuhara	Alfinda Novi Kristanti	Faculty of Science and Technology	<u>Biomass and Flavonoid Production of Gynura procumbens Adventitious Root in Bioreactor</u>	https://mybox.ncku.edu.tw/navigate/s/11EE0E2ED7D445EEAA80CD96CE64986DGSY
UNAIR 5	Retno Widyowati	Hsin-I Chang	Department of Pharmacognosy and Phytochemistry, Faculty of Pharmacy	<u>Characterization an dOptimization Potency of Deer Antler Extract as Osteoarthritis Therapy</u>	https://mybox.ncku.edu.tw/navigate/s/3ABBF047F02C41BA9076A00736D12142GSY
UNAIR 6	Sukarayanto	N/A	Department of History, Faculty of Humanities	<u>Measuring Plurality in Sampit: Case Study on Social Distance Between Ethnic Groups in the Post-Conflict Era</u>	https://mybox.ncku.edu.tw/navigate/s/36892588299845249E9D56FD297C340CGSY

UNAIR 7	Tutik Sri Wahyuni	N/A	Department of Pharmacognosy and Phytochemistry, Faculty of Pharmacy	<u>Antiviral Activities of Medicinal plants and its Isolated compounds against hepatitis virus</u>	https://mybox.ncku.edu.tw/navigate/s/9DE02C15F8F141A782FFE50FA1390F7 5GSY
URAR 1	Au Yong Hui Nee	Charles Ramendran S PR Subramaniam	Faculty of Business and Finance	<u>Compliance with Safety Practices among Medical Professionals: Exploring The Link between Organizational Safety Climate, and Safe Work Practices towards a Quality Healthcare and Patient Safety</u>	https://mybox.ncku.edu.tw/navigate/s/29AA1C39DCF8470286FD20568B317B9 FGSY
URAR 2	Dr. Bernard Saw Lip Huat	Dr. Thiam Hui San	Lee Kong Chian Faculty of Engineering and Science/ Centre for Vehicular Technology	<u>Design and optimization of high performance cold plate</u>	https://mybox.ncku.edu.tw/navigate/s/3897382733DC42D5B12C345B48D4CE5 AGSY
URAR 3	Gan Seng Chiew	Hsien-Chang Chang	Faculty of Medicine & Health Sciences	<u>Development of VEGF detection system based on electrochemical aptasensor and Lateral flow immunoassay for rapid detection of severe dengue.</u>	https://mybox.ncku.edu.tw/navigate/s/9F077EBF74D34A468FE940FAFB330B6 FGSY
URAR 4	Dr. Steven Lim	N/A	Lee Kong Chian Faculty of Engineering and Science	<u>Application of Organosolv Pretreatment to Degraded Empty Fruit Bunch for Optimum Sugar based Substrate Recovery</u>	https://mybox.ncku.edu.tw/navigate/s/C38BDD99D90344BFA6FBAE75CFCE2 9A2GSY
UTM 1	Rozeza A. Rashid	Mohd Adib bin Sarijari	Faculty of Electrical Engineering	<u>Building Security and Access Management System using Internet-of Things (IoT)</u>	https://mybox.ncku.edu.tw/navigate/s/92E5E2578E904CDB89064B28FCD2E03 3GSY
UTM 2	Rudzidatul Akmam Binti Dziauddin	Mohd. Azri Bin Mohd. Izhar (Dr.)	Rarak School	<u>A study on the fifth generation (5G) wireless connectivity of Connected Vehicles</u>	https://mybox.ncku.edu.tw/navigate/s/C8B2EE63EECE43FAAB9009039C8900 D0GSY
UTM 3	Shahira Liza Binti Kamis	N/A	Department of Mechanical Precision Engineering, Malaysia-Japan Institute of Technology	<u>Modification and Biotribological Behaviour of UHMWPE Composite for Biomedical Applications</u>	https://mybox.ncku.edu.tw/navigate/s/F7BC45DD3ED84CF28CF42ED0A06806 45GSY
NCU 1	Akon Higuchi	N/A	Department of Materials and Chemical Engineering	<u>Human stem cell culture and differentiation on biomaterials</u>	https://mybox.ncku.edu.tw/navigate/s/CDAF009A99FF4448B6481319D6291F2

					<u>CGSY</u>
NTHU 1	Pawel Lukasz Urban	N/A	Department of Chemistry	<u>Development of a portable analytical device using open-source electronic modules</u>	https://mybox.ncku.edu.tw/navigate/s/9897708A19D64656882361C068650F40G <u>SY</u>
VHU-HCM 1	Tran Van Hieu	N/A	Department of Molecular and Environmental Biotechnology, Faculty of Biology and Biotechnology	<u>Application of basic fibroblast growth factor (bFGF) incorporated injectable hydrogel for acute myocardial infarction (AMI) and/ or acute ischemic stroke (AIS) treatment on murine model.</u>	https://mybox.ncku.edu.tw/navigate/s/34E81121F55744B2BDF2FF296EF0B0E <u>AGSY</u>
NYMU 1	Heng-Hsin Tung	N/A	School of Nursing	<u>Trajectory of quality of life and nutrition status among cardiac cachexia patients</u>	https://mybox.ncku.edu.tw/navigate/s/FA507FFEBF6C44C5AB78B086A6BF3 <u>D36GSY</u>
NYMU 2	Surojit Chattopadhyay	N/A	Functional Nanomaterials Lab, Institute of Biophotonics	<u>Multimodal photofunctionalities of upconversion nanoparticle and 2D material composites.</u>	https://mybox.ncku.edu.tw/navigate/s/4BCF263B44C34A2FA6A9A3DD71DC <u>C2FDGSY</u>
NYUST 1	Hsing-Ta Wang	N/A	Graduate School of Technological and Vocational Education	<u>Research on etching of diamond wire sawn multicrystalline silicon by metal-assisted chemical etching method.</u>	https://mybox.ncku.edu.tw/navigate/s/6AFA6E12C94A4252837D75EE0BC84 <u>D5FGSY</u>
NYUST 2	Chih-Chieh Yang	N/A	Graduate School of Science and Technology Law	<u>Compare Intellectual Property laws of Indonesia, Malaysia and Taiwan</u>	https://mybox.ncku.edu.tw/navigate/s/910FC058C1154FEBA3DD1BFCD5C9B1 <u>98GSY</u>
NYUST 3	Ming-Chang Wu	Deni Danial Kesa	Graduate School of Technological and Vocational Education	<u>A cross-cultural study on the social influence for university students of South-eastern countries-taking social-ecological approaches</u>	https://mybox.ncku.edu.tw/navigate/s/B252BDAB2E4D46B399A900BED396E <u>4D2GSY</u>
NCKU 1	Kuan-Zong Fung	N/A	Department of Materials Science and Engineering	<u>Development of Electrodes and Electrolytes for High Performance Fuel Cells operated at High Temperature</u>	https://mybox.ncku.edu.tw/navigate/s/957119A6971A425D8C02E163638C051E <u>GSY</u>

NCKU 2	Chin-Fu Hung	Dr. Eko Priyo Purnomo	Department of Political Science & Institute of Political Economy	<u>The Impact of the Information and Communication Technologies in Emerging Democracies: Case Study of Indonesia' s Jakarta Election in 2017</u>	https://mybox.ncku.edu.tw/navigate/s/6198CE3A0B0C4CE09913B73FE1847C93GSY
NCKU 3	Wei-Cheng Wang	N/A	Department of Aeronautics and Astronautics	<u>Performance Analysis of a Newly Developed Cross-Axis Wind Turbine through Wind Tunnel</u>	https://mybox.ncku.edu.tw/navigate/s/1C90A02E64E14640BED73DF45F203AC1GSY
NCKU 4	Guey-Chuen Perng	N/A	Center of Infectious Diseases and Signaling Research	<u>Old and Young: pathogenesis of dengue virus infections</u>	https://mybox.ncku.edu.tw/navigate/s/4A64F93436BB4990AEFBD032EA4489A7GSY
NCKU 5	Yao Tang	Shih-Ming Li	Institute of Education	<u>The strategy of student global mobility in Higher Education(HE)</u>	https://mybox.ncku.edu.tw/navigate/s/96FA137DE8574B6F84EC36F668AE83D4GSY
NCKU 6	Su-Lin Yu	N/A	Center for Gender and Women' s Studies	<u>Gender and Migration: A Comparative Approach</u>	https://mybox.ncku.edu.tw/navigate/s/16BEBA9EC07842FDB4F5795590669760GSY
NCKU 7	Yen-Chen Liu	N/A	Department of Mechanical Engineering	<u>Advanced Control and Design for Networked Robots and Multi-Agent System</u>	https://mybox.ncku.edu.tw/navigate/s/8FF7E14C23BE45ABA9E9A352D12612F6GSY
NCKU 8	Jo-Shu Chang	Wei-Hsin Chen	Department of Chemical Engineering	<u>Circular bioeconomy with recovery of bio-products from microalgae-based wastewater treatment</u>	https://mybox.ncku.edu.tw/navigate/s/D1153687AFA44A8C836105523431310EGSY
NCKU 9	Tsornng-Juu Liang	N/A	Hierarchical Green-Energy Materials (Hi-GEM) Research Center	<u>Bidirectional Phase-Shift Full-Bridge DC-DC Converter for Sustainable Energy System</u>	https://mybox.ncku.edu.tw/navigate/s/1F8B6878F0F5449E95C5F2C201EEE88FGSY
NCKU 10	Yu-Chuan Lin	N/A	Department of Chemical Engineering	<u>Catalytic conversion of lignocellulosics into green polyols and adipic acid</u>	https://mybox.ncku.edu.tw/navigate/s/23145DF6DFD14B02B2A7D4EA639CE7A0GSY

NCKU 11	Wei Hsin Chen	Jo-Shu Chang	Research Center for Energy Technology and Strategy	<u>Biochar production from the thermochemical conversion of biomass and its applications</u>	https://mybox.ncku.edu.tw/navigate/s/F37AB0D7D6B044E89A096238DB715E <u>C4GSY</u>
NCKU 12	Hsuan-Teh Hu	N/A	Department of Civil Engineering	<u>Strengthening of Reinforced Concrete Structures with Fiber Reinforced Plastics</u>	https://mybox.ncku.edu.tw/navigate/s/D7900A193EB441DC90C7D73A43153A <u>D2GSY</u>