

BAB 9

PENYELIDIKAN DAN INOVASI



PENGIKTIRAFAN PENYELIDIKAN (DIIKTIRAF MyRA)

Pada tahun 2020, UniMAP telah menghantar produk penyelidikan ke TIGA (3) pameran penyelidikan yang diiktiraf di dalam MyRA. UniMAP telah menghantar sebanyak 15 produk ke *Malaysia Technology Expo (MTE) - Covid-19 International Innovation Awards Special Edition*, 50 Produk ke *31st International, Invention Innovation & Technology Exhibition (ITEX)* dan 10 produk ke *Seoul International Invention Fair (SIIF)*.

Berikut adalah pencapaian produk penyelidikan UniMAP dalam pameran penyelidikan berkenaan:



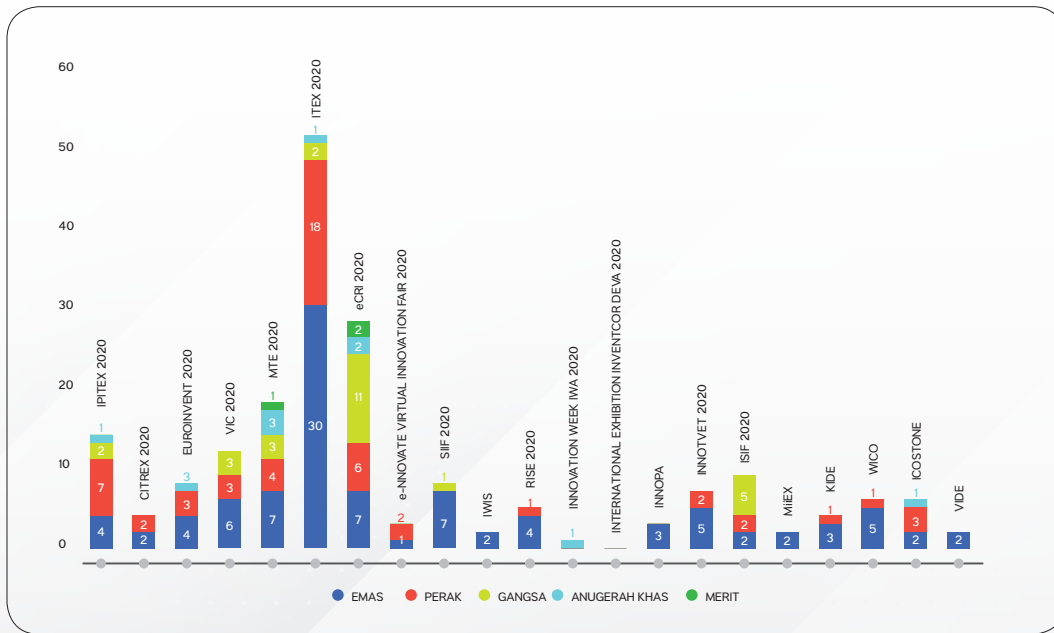
PENGIKTIRAFAN PENYELIDIKAN (KESELURUHAN)

Secara keseluruhan, UniMAP telah menghantar sebanyak 188 produk penyelidikan ke 20 pameran penyelidikan di dalam dan luar negara. Daripada jumlah tersebut, 97 Pingat Emas, 57 Pingat Perak, 27 Pingat Gangsa dan 9 Anugerah Khas telah berjaya dimenangi oleh penyelidik UniMAP.

Jadual 14: Pungutan Pingat Pameran Inovasi Peringkat Kebangsaan & Antarabangsa 2020

NO	PAMERAN	BILANGAN PRODUK	EMAS	PERAK	GANGSA	ANUGERAH KHAS	MERIT	
1.	2020 BANGKOK INTERNATIONAL INTELLECTUAL PROPERTY, INVENTION AND TECHNOLOGY EXPOSITION (IPILEX 2020)	13	4	7	2	1		
2.	CREATION, INNOVATION, TECHNOLOGY & RESEARCH EXPOSITION (CITREX 2020)	4	2	2	-	-	-	
3.	EUROPEAN EXHIBITION OF CREATIVITY AND INNOVATION (EUROINVENT 2020)	7	4	3	-	1	-	
4.	VIRTUAL INNOVATION COMPETITION 2020 (VIC 2020)	12	6	3	3	-	-	
5.	MALAYSIA TECHNOLOGY EXPO (MTE) 2020 SPECIAL EDITION COVID 19 INTERNATIONAL INNOVATION AWARDS	15	7	4	3	3	1	
6.	INTERNATIONAL INVENTION, INNOVATION & TECHNOLOGY EXHIBITION (ITEX) ONLINE 2020	50	30	18	2	1	-	
7.	eCARNIVAL OF RESEARCH AND INNOVATION (eCRI) 2020 (UMK)	26	7	6	11	2	2	
8.	e-NNOVATE VIRTUAL INNOVATION FAIR 2020	3	1	2	-	-	-	
9.	SEOUL INTERNATIONAL INVENTION FAIR (SIIF) 2020 (VIRTUAL)	10	7	-	1	-	-	2 PRODUK TIADA PINGAT
10.	INTERNATIONAL WARSAW INVENTION SHOW (IWIS) 2020	2	2	-	-	-	-	
11.	VIRTUAL INTERNATIONAL RESEARCH AND INNOVATION SYMPOSIUM AND EXPOSITION 2020 (RISE) UNIVERSITI TUN HUSSEIN ONN MALAYSIA (UTHM)	5	4	1	-	-	-	
12.	INNOVATION WEEK IWA 2020	1	-	-	-	1	-	
13.	INTERNATIONAL EXHIBITION INVENTCOR DEVA 2020	2		-	-	-	-	
14.	INDONESIA INVENTORS DAY 2020 (INNOVA) INDONESIA	3	3	-	-	-	-	
15.	INTERNATIONAL INNOVATION IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING 2020(INNOTVET2020)	7	5	2	-	-	-	
16.	INTERNATIONAL SCIENCE & INVENTION FAIR 2020 (ISIF 2020)	9	2	2	5	-	-	
17.	MACAO INTERNATIONAL INNOVATION & INVENTION EXPOSITION (MiiEX)	2	2	-	-	-	-	
18.	KAOSIUNG INTERNATIONAL INVENTION & DESIGN EXPO (KIDE) TAIWAN	4	3	1	-	-	-	
19.	WORLD INVENTION CREATIVITY OLYMPIC (WICO) 2020	6	5	1	-	-	-	
20.	THE 1ST INTERNATIONAL CONFERENCE OF SCIENCE AND TECHNOLOGY TOWARDS NEW NORMAL ERA(ICOSTONE)2020	5	2	3	-	1	-	
21.	VIRTUAL EXPO OF INNOVATION PRODUCT AND SYSTEM DESIGN 2020 (VIDE)	2	2	-	-	-	-	
JUMLAH KESELURUHAN		188	100	55	27	10	3	

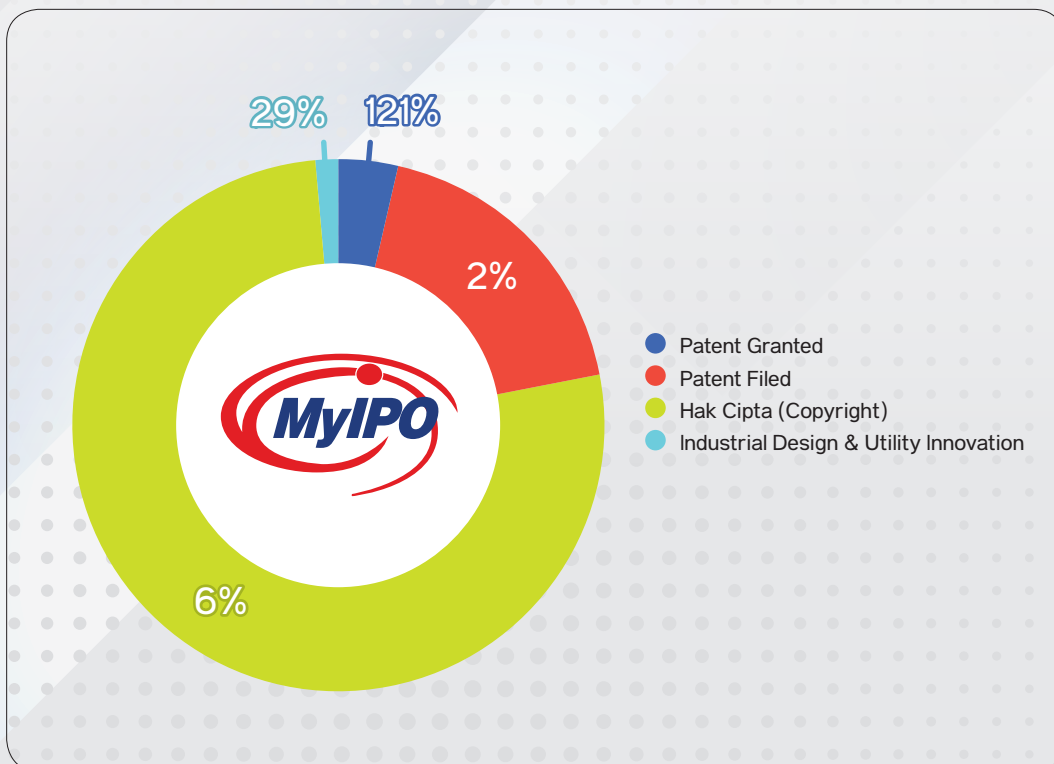
Rajah 3: Pungutan Pingat Pameran Inovasi Peringkat Kebangsaan & Antarabangsa 2020



PENDAFTARAN PERLINDUNGAN HARTA INTELK 2020

Tahun 2020 juga menunjukkan peningkatan dalam pendaftaran perlindungan Harta Intelek. Kesemua Harta Intelek UniMAP telah berdaftar dengan Perbadanan Harta Intelek Malaysia (MyIPO).

Berikut adalah senarai pendaftaran perlindungan Harta Intelek bagi tahun 2020:



SENARAI PATENT GRANTED

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	PATENT ID
1.	Prof. Dr. Hazry Desa	A Flying Apparatus For Aerial Agricultural Application	FTK Elektrik	MY-173920-A
2.	Prof. Madya Dr. Hasliza A. Rahim@Samsudin	Circular Microstrip For Wide Bandwidth Applications	FTK Elektronik	MY-174367-A
3.	Prof. Madya Dr. Hasliza A. Rahim@Samsudin	A Visual Surveillance System	FTK Elektronik	MY-174413-A
4.	Prof. Madya Ir. Ts. Dr. Shahrman Abu Bakar	A Detachable Power Driven Unit For Instantly Transforming Manual Wheel Chair Into Motorized Unit	FTK Elektronik	MY-175690-A
5.	Prof. Ts. Dr. Mohd. Mustafa Al Bakri Abdullah	Volcano Ash Solid Geopolymer Composite And A Method Of Producing The Same	FTK Kimia	MY-177133-A
6.	Prof. Ts. Dr. Uda Hashim	A Method To Manufacture A Nanowire Biosensor	INEE	MY-176496-A

SENARAI PATENT FILED

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	FILING ID
1.	Dr. Aminuddin Jamlos	Hybrid Ultra Wide Band Microwave Sensor	FTK Elektronik	PI2020001293
2.	Dr. Aminuddin Jamlos	Ultra Wide Band Microwave Imaging Sensor	FTK Elektronik	PI2020000028
3.	Prof. Madya. Ir. Ts. Dr Nasrul Amri Mohd Amin	Smart Embedded Uninterrupted Power Supply System For Airconditioning Unit Integrated With Thermal Energy Storage	FTK Elektronik	PI2020000101
4.	En. Hishamuddin Che Mat	Composition Of Plant And Method With Function Of Relieving Gout Symptoms	INSAT	PI2020001167
5.	En. Hishamuddin Che Mat	Synergistic Effect Of Plants For Personal Care Products With Insect Repellent Properties	INSAT	PI2020001168
6.	Dr. Mohd Al Hafiz Mohd Nawawi	An Automatic Aquatic Life Feeding Apparatus	FTK Elektronik	PI2020000031
7.	Dr. Noor Shazliana Aizee Abidin	A Method To Produce Powder Product From Mango Peel, Pulp And Seed Kernel, Mushroom And Roselle Calyxes	FTK Kimia	PI2020000026
8.	Ir. Tunku Muhammad Nizar Tunku Mansur	Integrated Direct Current Power Module System	FTK Elektrik	PI2020001165
9.	Ts. SK Muiz SK Abdul Razak	A System For Reducing Wind Pressure In High Rise Buildings	FTK Awam	PI2020000027
10.	Dr. Zul-Atfi Ismail	Integrated Computerised Maintenance Management System (I-CMMS)	FTK Awam	PI2020001113
11.	Ir. Ts. Radwan Hussin	An Attraction And Feeding Insectivores Machine	FTK Mekanikal	PI2020004804

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	FILING ID
12.	Prof. Madya Dr. Khairuddin Md Isa	Production Of Biodiesel Using The Spent Cooking Oil And Des-K ₂ Co ₃ As Catalyst	FTK Kimia	PI2020004791
13.	Prof. Madya Dr. Khairuddin Md Isa	A New Tobacco Treatment To Be Used As Activated Carbon For Water Treatment	FTK Kimia	PI2020004792
14.	Prof. Madya Ir. Ts. Dr. Nasrul Amri Mohd Amin	Algorithm For Automatic Online Attendance Data Processing	FTK Elektronik	PI2020004772
15.	En. Muhammad Ikman Ishak	Safety Syringe	FTK Mekanikal	PI2020004780
16.	Dr. Nor Hanisah Baharudin	A Multi-Functional Grid Connected Photovoltaic Power Generating Control System	FTK Elektrik	PI2020004816
17.	Prof. Madya Ir. Ts. Dr. Mohd Ridzuan Mohd Jamir	A Stamping Die	FTK Elektronik	PI2020004761
18.	Dr. Tan Chan Sin	Apparatus And Method For Cleaning Edible Bird Nest	FTK Mekanikal	PI2020004788
19.	Dr. Wan Nor Munirah Ariffin	Ranking And Edge Splitting Technique For Cyclic Graph To Acyclic Graph In Task Assignment Problem	Fakulti Sains Gunaan & Kemanusiaan	PI2020004798
20.	Dr. Mohd Sharizan Md Sarip	An Integrated Process For Protein Powder Production From Rice Bran	FTK Kimia	PI2020004797
21.	Dr. Mohd Al-Hafiz Mohd Nawi	An Integration Of Syngas Generation Via Swirling Fluidized Bed Gasifier	FTK Mekanikal	PI2020004775
22.	Dr. Zul-Atfi Ismail	Building Information Modelling System Application	FTK Awam	PI2020004762
23.	Dr. Rafiza Abd Razak	Heat Evolutionary And Mechanism of Alkali Activated Material (AAM)	FTK Awam	PI2020004796
24.	Dr. Wan Mastura Wan Ibrahim	Alkali Activated Materials Membrane And A Method To Produce The Same	FTK Kimia	PI2020004793
25.	Ir. Tunku Muhammad Nizar Tunku Mansur	Clinical Samples Arrival Alert System	FTK Elektrik	PI2020004817
26.	Dr. Norshah Aizat Shuaib	Recycled Carbon Fibre Reinforce Acrylonitrile Butadiene Styrene Filament For Fused Deposition Modelling Application	FTK Mekanikal	PI2020004787
27.	Prof. Dr. Hazry Desa	An Adjustable Multirotor Arms And System Thereof	FTK Elektrik	PI2020004814
28.	Ir. Irfan Abd Rahim	Ultra High Temperature (UHT) Boiler For Industrial Yogurt, Milk And Food Consumer	FTK Mekanikal	PI2020004813
29.	Dr. Mohd Aminudin Jamlos	Microwave Signal Detector	FTK Elektronik	PI202004795

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BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
1.	Ir. Ts. Radhwan Hussin	Swiftlets Fountain Feeding Machine	FTK Mekanikal	LY2020002762 (Copyright)
2.	Ir. Tunku Muhammad Nizar Tunku Mansur	Clinical Samples Arrival Alert	FTK Elektrik	LY2020001946 (Copyright)
3.	Prof. Ir. Dr. Anuar Mat Safar	Geo Analytical Based Attendance and Analytical System - Covid 19 Outbreak	FTK Elektronik	LY2020001947 (Copyright)
4.	Prof. Madya Dr. Muzammil Jusoh	Switchable Antenna System Based High Speed Wireless Railway Communication	FTK Elektronik	284735465 (Copyright)
5.	Dr. Nur Hafizah Ghazali	Fypexpert : An Expert System For Managing Final Year Project	FTK Elektronik	284735520 (Copyright)
6.	Dr. Saidatul Norlyana Azemi	IoT Alarm Air Quality Monitoring System	FTK Elektronik	284735794 (Copyright)
7.	Dr. Naimah Yaakob	IoT Based Smart Crop-Field Monitoring And Management System	FTK Elektronik	284735857 (Copyright)
8.	Ir. Rosdisham Endut	Soil Nutrient Prediction Using Cloud-Based Machine Learning Neae-Infrared Spectroscopy (NIRS)	FTK Elektronik	284735933 (Copyright)
9.	Dr. Thennarasan Sabapathy	An IoT Based Interactive Smart Sanitizer System	FTK Elektronik	284735974 (Copyright)
10.	Prof. Madya Ts. Dr. Azremi Abdullah Al-Hadi	Two-Port Antenna Decoupling Network For Sub 1-GHz Mobile Terminal Application	FTK Elektronik	284735968 (Copyright)
11.	Dr. Amiza Amir	IoT Based Smart Monitoring And Management System	FTK Elektronik	28473992 (Copyright)
12.	Ir. Rosdisham Endut	Smart Mobile RF Signal Monitoring	FTK Elektronik	284736048 (Copyright)
13.	Ir. Dr. Muhamad Izuan Fahmi Romli	Green Electric Vehicle (EV) Using Supercapacitor as Main Energy Sources	FTK Elektrik	284726003 (Copyright)
14.	En. Muhammad Ikman Ishak	Street Drain Garbage Trapper	FTK Mekanikal	AR2020003727 (Copyright)
15.	En. Muhammad Ikman Ishak	Multifunctional School Desk	FTK Mekanikal	AR2020003726 (Copyright)
16.	Dr. Mohd Al-Hafiz Mohd Nawawi	Internet of Things Smart Aquaculture Feeding Systems	FTK Mekanikal	AR2020003730 (Copyright)
17.	Ts. Dr. Wan Azani Wan Mustafa	A Smart Monitoring System For Cervical Cancer Classification Based On Nucleas Analysis	FTK Elektrik	LY2020000452 (Copyright)
18.	Dr. Khairun Nisa Khairuddin	NZ Model Of Co-Worker Support	Fakulti Sains Gunaan & Kemanusiaan	LY2020003794 (Copyright)
19.	Dr. Lee Yeng Seng	High Frequency Dielectric Probe For Dielectric Properties Measurement	FTK Elektronik	LY2020003784 (Copyright)
20.	Dr. Lee Yeng Seng	Manual Of Cutting Textile Material Using Silhoutte Cameo 3	FTK Elektronik	LY2020003785 (Copyright)
21.	Dr. Lee Yeng Seng	Flour Detector Using Helical Antenna	FTK Elektronik	LY2020003786 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
22.	Pn. Rasyida Md Saad	An Improved Algorithm For Performance Evaluation Process Based On Fuzzy Hamming Distance Method	Fakulti Sains Gunaan & Kemanusiaan	LY2020003800 (Copyright)
23.	Ir. Mohd Nasir Mat Saad	Soap Cutting Machine	FTK Mekanikal	LY2020003752 (Copyright)
24.	Dr. Juyana A Wahab	Growth Inhibition Of Intermetallic Compound (IMC's) In Sn-3.5Ag-0.5Cu (SAC305) Solder For A Robust	FTK Kimia	LY2020003753 (Copyright)
25.	Dr. Farah Farhana Zainal	Hybrid Geopolymer Coating	FTK Kimia	LY2020003754 (Copyright)
26.	Prof. Madya Ir. Dr. Shayfull Zamree Abd Rahim	Productivity And Quality Enhancement Of Moulded Parts Produced Through An Innovative Design Of MGSS Conformal Cooling Channels	FTK Mekanikal	LY2020003755 (Copyright)
27.	Prof. Madya Ir. Dr. Mohd Arif Anuar Mohd Salleh	Improvement Of Sn-0.7Cu Lead Free Solder Joints On Shear Strength With Addition Of Titanium Oxide (TiO ₂) Particles	FTK Kimia	LY2020003756 (Copyright)
28.	Ts. Mohd Hazwan Mohd Hanid	Escalator Handrail Sanitizer Device	FTK Mekanikal	LY2020003757 (Copyright)
29.	Prof. Madya Ts. Dr. Rozyanty Rahman	Green Kenaf Soundproof Wall Panel	FTK Kimia	LY2020003758 (Copyright)
30.	Prof. Madya Ts Dr Rozyanty Rahman	Fundamental Study on Preparation and Biodegradability of Kenaf Core/Starcj Film by Soil Burial and Microbial Cultures For Oil Absorbance	FTK Kimia	LY2020003759 (Copyright)
31.	Dr. Dewi Suryani Che Halin	AG/TiO ₂ Thin Film As A Self Cleaning Solar Cell	FTK Kimia	LY2020003760 (Copyright)
32.	Prof. Ts. Dr. Mohd Mustafa Al Bakri Abdullah	GPCrete	FTK Kimia	LY2020003761 (Copyright)
33.	Ts. Dr. Yusrina Mat Daud	Novel Geoplastic For Pipe Application	FTK Kimia	LY2020003762 (Copyright)
34.	Ts. Dr. Mohammad Firdaus Abu Hashim	Eco-Geopipe : Glass Reinforced Epoxy Filled Geo-Filler For Piping Application	FTK Kimia	LY2020003763 (Copyright)
35.	Pn. Aidanazima Abashah	Get Runner	Fakulti Sains Gunaan & Kemanusiaan	LY2020003764 (Copyright)
36.	En. Muhamad Farizuan Rosli	UHT Boiler, Design And Development Of Automated Boiler UHT Machine For Dadih and Milk	FTK Mekanikal	LY2020003765 (Copyright)
37.	Ts. Dr. Romisuhani Ahmad	Fabrication of Kaolin Geopolymer Ceramic With Addition Of Ultra High Molecular Weight Polyethylene (UHMWPE) As A Binder Via Powder Metallurgy Method	FTK Kimia	LY2020003766 (Copyright)
38.	Prof. Madya Ir. Dr. Mohd Arif Anuar Mohd Salleh	Wettability And Shear Strength Of SN-CU-NI-xSi ₃ N ₄ Composite Solder	FTK Kimia	LY2020003767 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
39.	Prof. Madya Ir. Dr. Mohd Arif Anuar Mohd Salleh	High Strength PB-Free Composite Interconnects For Next Generation Electric Vehicle Power Modules	FTK Kimia	LY2020003768 (Copyright)
40.	Prof. Madya Ir. Dr. Mohd Fathullah Ghazli @ Ghazali	New Discovery Of Sm ³⁺ In Reducing Cost For Red Phosphor In White L.E.D Applications	FTK Mekanikal	LY2020003769 (Copyright)
41.	Prof. Ts . Dr. Mohd Mustafa Al Bakri Abdullah	Geo-Adsorbent For Emulsion Bitumen Wastewater Treatment	FTK Kimia	LY2020003770 (Copyright)
42.	Liyana Ahmad Sofri	GeoSTAB : Enviromental Friendly Pavement Base Stabilizer	FTK Awam	LY2020003771 (Copyright)
43.	Nurul Aida Mohd Mortar	Geopolymer Concrete Subjected To Air Blast	FTK Kimia	LY2020003772 (Copyright)
44.	Dr. Kamrosni Abdul Razak	AG/TiO ₂ Smart Coat	FTK Kimiai	LY2020003773 (Copyright)
45.	Pn. Syarifah Nuraqmar Syed Mahamud	Antistatpak Anti-Static Packaging From Poly (Hydroxybutyrate-Co-Hydroxyvalerate) (PHBV)/ Graphene (G) Film	FTK Kimia	LY2020003774 (Copyright)
46.	Dr. Meor Ahmad Faris Meor Ahmad Tajudin	High Flexibility Green Concrete	FTK Kimia	LY2020003775 (Copyright)
47.	Dr. Juyana A Wahab	Interconnect Substrate Surface Modification To Improve Wettability In Soldering	FTK Kimia	LY2020003776 (Copyright)
48.	Prof. Ts. Dr. Mohd Mustafa Al Bakri Abdullah	Thermo Scoria-Multipurpose Green Slag Composites	FTK Kimia	LY2020003778 (Copyright)
49.	Dr. Rafiza Abd Razak	Self-Controlling Of Thermal Cracking In Ambient Cured-Geopolymers	FTK Awam	LY2020003779 (Copyright)
50.	Dr. Dewi Suryani Che Halin	Graphene Oxide/TiO ₂ Thin Film As A Self- Cleaning Glass	FTK Kimia	LY2020003780 (Copyright)
51.	Prof. Madya. Ts. Dr. Azlin Fazlina Osman	Starcello-Straw (All-Natural And Biodegradable Straw From Starch And Opefb Cellulose)	FTK Kimia	LY2020003781 (Copyright)
52.	Dr. Dewi Suryani Che Halin	SnO ₂ /TiO ₂ Smart Coat	FTK Kimia	LY2020003782 (Copyright)
53.	Ir. Irfan Abd Rahim	A New Design Og Heat Acoustic Standing Wave To Electricity (H-ASw2E)	FTK Mekanikal	LY2020003783 (Copyright)
54.	Ts. Dr. Wan Azani Wan Mustafa	Wall Climbing Robot Model For Inspection Purpose	FTK Elektrik	LY2020000137 (Copyright)
55.	Ts. Dr. Wan Azani Wan Mustafa	Soil Sensor For Agriculture Industry	FTK Elektrik	LY2020000135 (Copyright)
56.	Ts. Dr. Wan Azani Wan Mustafa	Design Woodball Line Detection	FTK Elektrik	LY2020003495 (Copyright)
57.	Dr. Wan Nor Munirah Ariffin	Bounded Mahalanobis Distance Feature Selection For Low Level	Fakulti Sains Gunaan & Kemanusiaan	LY2020003940 (Copyright)
58.	Dr. Wan Nor Munirah Ariffin	Percentile Forward Feature Selection	Fakulti Sains Gunaan & Kemanusiaan	LY2020003942 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
59.	Dr. Wan Nor Munirah Ariffin	Bounded Mahalanobis Distance Feature Selection For Intermediate Level Data Fusion	Fakulti Sains Gunaan & Kemanusiaan	LY2020003941 (Copyright)
60.	Pn. Roshazita Che Mat	Fire Resistance of Biomass Ash Panels	FTK Awam	LY2020004450 (Copyright)
61.	Pn. Roshazita Che Mat	Enhancing MSWI Bottom Ash Mortar using Biomass Waste	FTK Awam	LY2020004451 (Copyright)
62.	Pn. Roshazita Che Mat	Bottom Ash Binder	FTK Awam	LY2020004452 (Copyright)
63.	Pn. Roshazita Che Mat	Fire Resistance Concrete from Waste Material	FTK Awam	LY2020004453 (Copyright)
64.	Pn. Roshazita Che Mat	Influence of Mineral Additions on the Performance of Recycle Aggregate Concrete	FTK Awam	LY2020004454 (Copyright)
65.	Prof. Madya Dr. Mohd Irfan Hatim Mohamed Dzahir	Starch-Ethanol: A Great way to Produce Ethanol for Hand Sanitizer Production	FTK Kimia	LY2020004458 (Copyright)
66.	Dr. Zunaida Zakaria	Novel Foldable Intubation Hood	FTK Kimia	LY2020004457 (Copyright)
67.	Dr. Sharmini Abdullah	Food Code Breaker Snap It. Say It. Decode	Fakulti Sains Gunaan & Kemanusiaan	LY2020004456 (Copyright)
68.	Pn. Roshazita Che Mat	Effect of Metakoalin on Municipal Solid Waste Incineration (MSWI) Bottom Ash-Cement Composite	FTK Awam	LY2020004455 (Copyright)
69.	Dr. Norazian Mohamed Noor	Prediction of Air Pollution from Rice Straw open Burning using AERMOD: A Case Study in Perlis	FTK Awam	LY2020004464 (Copyright)
70.	Pn. Norlia Mohamad Ibrahim	Fly Ash Bubble Aggregate	FTK Awam	LY2020004463 (Copyright)
71.	En. Erdy Sulino Mohd Muslim Tan	Touch Less Key Control Panel for Elevator	FTK Elektrik	LY2020004462 (Copyright)
72.	Tengku Kastriafuddin Shah Tengku Yaakob	Developing and Designing M-Health Mobile Apps about Electronic Health Record of Patients for Malaysian	Fakulti Sains Gunaan & Kemanusiaan	LY2020004461 (Copyright)
73.	Dr. Sharmini Abdullah	F.I.T	Fakulti Sains Gunaan & Kemanusiaan	LY2020004460 (Copyright)
74.	Dr. Sharmini Abdullah	Talking Phonics for Autism See. Touch.Hear.Speak	Fakulti Sains Gunaan & Kemanusiaan	LY2020004459 (Copyright)
75.	Ir. Ts. Radhwan Bin Hussin	A Novelty Hybrid Mold Insert with Newly Epoxy Resin (MEC) Formulation for Injection Molding Application	FTK Mekanikal	LY2020004468 (Copyright)
76.	En. Mohd Effendi Muhammad Suandi	A New Design of Portable Water Purification System	FTK Mekanikal	LY2020004467 (Copyright)
77.	Dr. Mohd Sabri Hussin	Protective Intubation Device	FTK Mekanikal	LY2020004466 (Copyright)
78.	Dr. Norazian Mohamed Noor	Statistical Software for Estimating Missing Values of Air Pollutant Dataset	FTK Awam	LY2020004469 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
79.	Dr. Norazian Mohamed Noor	The Sugarpap: Paper from Sugarcane Bagasse	FTK Awam	LY2020004470 (Copyright)
80.	Dr. Norazian Mohamed Noor	SSDEM ^r : Stastical Software for Fitting Distribution and Estimating Missing Values in Environment Data Set	FTK Awam	LY2020004471 (Copyright)
81.	Dr. Zarina Yahya	Towards Green Constuction Materials: Geopolymer for Underwater Concreting	FTK Awam	LY2020004472 (Copyright)
82.	Pn. Norlia Mohamad Ibrahim	UniMAP IBS-Envi Brick	FTK Awam	LY2020004473 (Copyright)
83.	Pn. Norlia Mohamad Ibrahim	Preparation and Characterization of Activated Carbon from Rambutan Seed by Chemical Activation	FTK Awam	LY2020004474 (Copyright)
84.	Pn. Norlia Mohamad Ibrahim	MSWIFA Artificial Agregate in Concrete	FTK Awam	LY2020004475 (Copyright)
85.	Norlia Mohamad Ibrahim	Innovative IBS Block	FTK Awam	LY2020004477 (Copyright)
86.	Norlia Mohamad Ibrahim	Foam-Gate (Artifical Lightweight Aggregate)	FTK Awam	LY2020004478 (Copyright)
87.	Norlia Mohamad Ibrahim	Arti-Gate	FTK Awam	LY2020004479 (Copyright)
88.	Prof. Madya Dr. Midhat Nabil Ahmad Salimi	Hydroxyapatite Nanoparticles Functionalized with Catechin for Therapeutic Intervention of Covid-19	FTK Kimia	LY2020004480 (Copyright)
89.	Dr. Marni Azira Markom	Long-Range Body Temperature Detector	FTK Elektronik	LY2020004481 (Copyright)
90.	Dr. Marni Azira Markom	3-in-1 Automatic Body Temperature Detection, Sanitizer with Attendance System	FTK Elektronik	LY2020004482 (Copyright)
91.	Dr. Marni Azira Markom	Sanitizing Tunnel with UV Sheet	FTK Elektronik	LY2020004483 (Copyright)
92.	En. Muhamad Hafiz Masran	Coding of Modern Heuristic Algorithm Using Matlab: Crow search Algorithm	Fakulti Sains Gunaan & Kemanusiaan	DV2020004484 (Copyright)
93.	Prof. Madya Dr. Hakimah Osman	Maturation Free Process In Natural Rubber Latex Operations Towards Energy Saving And Enviromental Protection	FTK Kimia	LY2020005226 (Copyright)
94.	Pn. Wan Suhana Wan Daud	Pair Associated Linear System (PALS)	Fakulti Sains Gunaan & Kemanusiaan	LY 2020004975 (Copyright)
95.	En. Norrazman Zaiha Zainol	An Investigation On The Efficiency And Accuracy Of Localization Towards Moisture Distribution Sensing Based-on Tomography Method	FTK Awam	LY2020005110 (Copyright)
96.	Prof. Madya Ir. Dr. Mohd Shukry Abd Majid	Thermally Conductive Nanommodified Polymer Composites For Next Generation Miniaturised Electronics	FTK Mekanikal	LY2020005125 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
97.	En. Norrazman Zaiha Zainol	Forecasting Green Building Development Index For Construction Industry	FTK Awam	284737462 (Copyright)
98.	Dr. Mustaqqim Abdul Rahim	Co-Shell-Crete : Lightweight-Waste Material	FTK Awam	LY2020005157 (Copyright)
99.	Prof. Madya Dr. Hakimah Osman	Eco-latex Foam	FTK Kimia	LY202000522 (Copyright)
100.	Prof. Madya Dr. Irnis Azura Zakarya	Organic Composter 2.0	FTK Awam	LY2020005233 (Copyright)
101.	Dr. Muhammad Khairul Ali Hassan	Glove Thermal Chamber	FTK Elektrik	LY2020005231 (Copyright)
102.	En. Mohamad Shuhidan Salleh	Fire Escape Window Grille Keyless Locking System	FTK Mekanikal	LY2020005251 (Copyright)
103.	Prof.Madya Ir. Dr. Hafiz Fazalul Rahman	Proceedings of The 6th International Conference on Green Design And Manufacture 2020	FTK Elektrik	LY2020005247 (Copyright)
104.	Prof. Madya Dr. Hakimah Osman	ReNEWfoam: Evolution of Foaming Material	FTK Kimia	LY2020005221 (Copyright)
105.	Prof. Madya Dr. Hakimah Osman	HYPO-G : A New Generation of Natural Rubber Latex Glove	FTK Kimia	LY2020005223 (Copyright)
106.	Prof. Madya Dr. Noorhafiza Muhammad	Novel Fused Deposition Modelling (FDM) 3D Printed Biodegradable Pla Stent	FTK Mekanikal	LY2020005250 (Copyright)
107.	Dr. Fathinul Syahir Ahmad Saad	Harumanis Mango Intelligent Quality System	FTK Elektrik	LY2020005241 (Copyright)
108.	Ir. Ts. Radhwan Hussin	Mechanism For Harvesting Swiftlets Nest	FTK Elektrik	LY2020005235 (Copyright)
109.	Pn. Baseemah Hj Mat Jalaluddin	Self Charging Portable Generator	FTK Elektrik	LY2020005230 (Copyright)
110.	Prof. Madya Dr. Hakimah Othman	Green Carcell as Reinforced Composites	FTK Kimia	LY2020005228 (Copyright)
111.	Prof. Madya Dr. Hakimah Othman	Novel Extracted Pure Crystalline Silica From Lemongrass	FTK Kimia	LY2020005229 (Copyright)
112.	Prof. Madya Dr. Hakimah Othman	Novel Natural Latex From Manihot Esculenta (TAPIOCA)	FTK Kimia	LY2020005227 (Copyright)
113.	Prof. Madya Dr. Hakimah Othman	DURIO-PLAST : Biodegradable Polymer Composites	FTK Kimia	LY2020005225 (Copyright)
114.	Prof. Madya Dr. Irnis Azura Zakarya	CQI Calc	FTK Awam	LY2020005232 (Copyright)
115.	Dr. Suraiya Ibrahim	Portable Food Warmer For Travelling And Superbusy People	Fakulti Sains Gunaan & Kemanusiaan	LY2020005237 (Copyright)
116.	Prof. Madya Ir. Dr. Hafiz Fazalul Rahman	Intelligent Machine Learning Technique For Prediction Of Moisture Distribution And Quantification Assessment Using Deep Convulutional Neural	FTK Elektrik	LY2020005109 (Copyright)

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
117.	Prof. Madya Dr. Latifah Munirah Kamarudin	Radio Frequency Signal Optimization And Characterization For Moisture Sensing In Rice Grain Silos	FTK Elektronik	LY2020005111 (Copyright)
118.	Dr. Ummi Naiemah Saraih	Model Of Alumni Giving In The Higher Educational Institutions (ALGivHEI)	Fakulti Sains Gunaan & Kemanusiaan	LY2020006330 (Copyright)
119.	Dr. Wan Nor Munirah Ariffin	DCGSIMPLIFY Programming Codes On Transforming Directed Cyclic To Acyclic	Fakulti Sains Gunaan & Kemanusiaan	LY2020006328 (Copyright)
120.	Dr. Ummi Naiemah Saraih	Model Of Entrepreneurial Success In The Malaysian Cosmetic Industry (ESMCI)	Fakulti Sains Gunaan & Kemanusiaan	LY2020006333 (Copyright)
121.	Dr. Ummi Naiemah Saraih	Model Of Psychological Well-Being (PWB) Among The Royal Malaysian Police (RMP)	Fakulti Sains Gunaan & Kemanusiaan	LY2020006331 (Copyright)

SENARAI INDUSTRIAL DESIGN & UTILITY INNOVATION

BIL.	KETUA PENYELIDIK	TAJUK PRODUK	FAKULTI	IP ID
1.	Prof. Madya Ir. Ts. Dr. Shahrman Abu Bakar	Seri Perlis Motorcycle	FTK Elektrik	20-00488-0101 (Industrial Design)
2.	Prof Madya Ir. Ts. Dr Shahrman Abu Bakar	Alat Disinfektan Mudah Alih	FTK Elektrik	UI 2020005243 (Utility Innovation)

PENCAPAIAN PERJANJIAN PERLESENAN

Pada tahun 2020, sebanyak empat (4) Perjanjian Perlesenan bagi produk inovasi UniMAP telah berjaya diperolehi. Ini adalah pencapaian terbaik dalam Perjanjian Perlesenan sejak tertubuhnya UniMAP.

Pencapaian dalam Perjanjian Perlesenan ini juga telah memberi impak yang sangat besar dalam penarafan bintang oleh MyRA. Berikut adalah senarai Perjanjian Perlesenan bagi tahun 2020:

GERAN PENYELIDIKAN

Pada tahun 2020, UniMAP menerima geran penyelidikan berjumlah RM19,754,905.50. Dana penyelidikan ini diterima daripada Universiti (UniMAP) sebanyak RM1,355,417.00, dana daripada kerajaan sebanyak RM16,204,948.50, dana daripada pihak industri/ swasta sebanyak RM2,128,540.00 dan dana daripada pihak antarabangsa sebanyak RM66,000.00.

Geran Penyelidikan UniMAP Mengikut PPK/ Institut/ Unit adalah seperti berikut:

BIL.	NAMA GERAN	JUMLAH (RM)
GERAN UNIVERSITI (UniMAP)		
1.	Impact Research Fund (IMPRES)	30,000.00
2.	Community Project Research Fund (COMPRES)	35,000.00
3.	UniMAP- Private Matching Fund (UniPRIMA)- Dana UniMAP	165,000.00

BIL.	NAMA GERAN	JUMLAH (RM)
4.	Research Materials Fund (RESMATE)	200,000.00
5.	Mentorship Research Grant	40,000.00
6.	UTM Collaborative Research Grant (CRG)	280,000.00
7.	UTP-Special Joint Research Project	40,000.00
8.	IIUM Collaborative Research Project	5,000.00
9.	International Collaborative Research Project	15,000.00
10.	UniMAP Collaborative Research Project (CRP) - UniMAP-UUM-UNISZA-AIU	10,000.00
11.	Geran Pasca Doktorat	198,000.00
12.	Geran Pra-Pengkomersialan	80,000.00
13.	Geran Penyelidikan Khas UniMAP	257,417.00
JUMLAH		1,355,417.00
GERAN KERAJAAN		
1.	FRGS	10,413,649.00
2.	LRGS	1,468,800.00
3.	Geran Penyelidikan Translational MRUN (USM-MTUN-MCUN)	2,700.00
4.	Geran Sepadan MTUN - Dana MTUN	1,019,400.00
5.	Geran MTUN Pra - Pengkomersialan - Dana MTUN	225,000.00
6.	Majlis Agama Islam & Adat Istiadat Melayu Perlis (MAIPs)	384,559.50
7.	TERAJU- Dana Pembangunan Usahawan Bumiputera (DPUB)	1,746,140.00
8.	Pusat Governans, Integriti dan Anti Rasuah Nasional (GIACC)	150,000.00
9.	FAMA Negeri Perlis	55,000.00
10.	Geran Penyelidikan Strategik Translational Research (TR@M)	373,500.00
11.	Public-Private Research Grant (PPRN) - KPT	50,000.00
12.	Suruhanjaya Komunikasi dan Multimedia Malaysia (MCMC)	225,200.00
13.	Malaysia Laboratories For Academia-Business Collaboration (MyLAB)	91,000.00
JUMLAH		16,204,948.50
GERAN INDUSTRI / SWASTA		
1.	Geran Sepadan MTUN - Dana Industri	1,215,665.00
2.	Geran Sepadan MTUN Pra - Pengkomersialan - Dana Industri	42,000.00
3.	Environment Idaman Sdn Bhd	500,875.00
4.	Fitrah Gaya Holding	20,000.00
5.	Al-Bukhary International University	200,000.00
6.	L'Oreal - UNESCO For Women In Science	30,000.00
7.	UniMAP- Private Matching Fund (UniPRIMA) - Dana Industri	90,000.000
8.	ZM Corporate Services Sdn Bhd	20,000.00
9.	Aiterra Technology	10,000.00
JUMLAH		2,128,540.00
GERAN ANTARABANGSA		
1.	Hubert Curien Partnership - Hibiscus (PHC-Hibiscus) Research Fund -(MyPAIR)	66,000.00
JUMLAH		66,000.00

PENCAPAIAN DALAM PENARAFAN BINTANG MALAYSIA RESEARCH ASSESSMENT (MyRA)

AKTIVITI PENYELIDIKAN DAN PEMBANGUNAN 2020



| 3-4 Mac & 14-15 September 2020 | Bengkel Pendaftaran Perlindungan Harta Intelek Siri I & II | Hotel Seri Malaysia, Kangar | 26 Paten berjaya difailkan

Memberi pendedahan kepada penyelidik UniMAP untuk melakukan pendaftaran perlindungan harta intelek secara terus dengan bimbingan Penilai dari Perbadanan Harta Intelek Malaysia (MyIPO)



| 15 Disember 2020 | Majlis Penyampaian Sijil Penghargaan Pameran dan Geran Penyelidikan UniMAP 2020 | Auditorium Canselori UniMAP

Majlis Penyampaian Sijil Penghargaan Pameran dan Geran Penyelidikan UniMAP 2020 yang berlangsung di Auditorium Canselori, Kampus Alam UniMAP, Pauh Putra. Majlis penyampaian disempurnakan oleh YBhg. Prof. Ir. Ts. Dr. R Badlishah Ahmad, Naib Canselor UniMAP



| 8 September 2020 | Majlis Penyampaian Pingat dan Anugerah EREKA 2020 | Auditorium Perpustakaan Tuanku Syed Faizuddin Putra UniMAP

Majlis penyampaian pingat Emas, Perak & Gangsa serta Anugerah Khas sempena Ekspo Rekacipta dan Pameran Penyelidikamm UniMAP 2020 yang diadakan secara maya. Majlis penyampaian disempurnakan oleh YBhg. Prof. Ir. Ts. Dr. R Badlishah Ahmad, Naib Canselor UniMAP.



Webinar | 03 Nov 2020 | Cabaran Inovasi Di Platform Maya

Webinar disampaikan oleh Ts. Mohammad Bin Abdullah, Pensyarah Kanan di Fakulti Kejuruteraan Kimia, UiTM Pasir Gudang, Johor



Webinar | 24 Julai 2020 | Winning Research Exhibition Made Easy

Webinar disampaikan oleh Prof. Madya. Dr. Midhat Nabil Bin Ahmad Salimi, Pensyarah Kanan di Fakulti Teknologi Kejuruteraan Kimia UniMAP.



Webinar | 01 Sept 2020 | Pitching: Tips & Trap

Webinar disampaikan oleh Puan Mariatini Binti Othmah, Naib Presiden Kanan di Malaysian Technology Development Corporation (MTDC)



Webinar | 24 Sept 2020 | Sharing Session on Innovation & Commercialisation
Webinar dengan kerjasama Universiti Utara Malaysia (UUM) dan Universiti Sains Malaysia (USM) ini disampaikan oleh Prof. Madya. Ir. Ts. Dr. Shahriman Bin Abu Bakar, Pengurus MoTECH UniMAP



Webinar | 30 Sept 2020 | The Business Model Canvas
Webinar disampaikan oleh En. Ahmad Zulhusny Bin Rozali, Pensyarah di Fakulti Sains Gunaan & Kemanusiaan UniMAP



Webinar | 06 Okt 2020 | IP Valuation & Commercialisation
Webinar disampaikan oleh En. Mohamed Ikhwan Bin Shahdzul Bakri, Pengarah Bahagian Pembangunan Perniagaan, Perbadanan Harta Inteltek Malaysia (MyIPO)



Webinar | 13 Okt 2020 | From Research To Business Plan
Webinar disampaikan oleh Dr. Wan Sallha Binti Yusoff, Pensyarah Kanan di Fakulti Sains Gunaan & Kemanusiaan UniMAP



Webinar | 21 Okt 2020 | Licensing Agreement : Terms that the Researcher Should Know
Webinar disampaikan oleh Puan Haslina Binti Hassan Basri, Pengarah Pusat Inovasi & Pengkomersialan UniMAP



Webinar | 28 Okt 2020 | Peranan SME Corp. Malaysia Dalam Membantu Pengkomersialan Produk Usahawan
Webinar disampaikan oleh Cik Nur-Ul-Ain Binti Mohd Asmoni, Pengarah SME Corp. Malaysia bagi Kedah & Perlis