| No | Research Title  | Main Researcher                              | Start Year | End Year | Amount (RM) | Sponsorship Agency   |
|----|---|--|------------|----------|-------------|----------------------|
| 1  | GEOMETRIC MODELLING OF CUTTING<br>TOOL INCLINATION ANGLES FOR B-<br>SPLINE FREEFORM SURFACES IN FOUR-<br>AXIS MACHINING PROCESSES                       | DR. MUHAMMED<br>NAFIS OSMAN ZAHID            | 2016       | 2018     | 114,400.00  | KPT                  |
| 2  | AN ARTIFICIAL IMAGE PROCESSING<br>BASED DECISION MAKING APPROACH<br>FOR COSTTIME EFFECTIVE GRADING<br>AND SORTING OF ROTATIONALLY<br>SYMMETRIC PRODUCTS | DR. MOHAMMED<br>ABDO HASHEM                  | 2016       | 2018     | 102,500.00  | KPT                  |
| 3  | INVESTIGATION OF MICRO-ABRASION<br>BEHAVIOUR OF NANO-CERAMIC IN<br>MAGNETO-RHEOLOGICAL POLISHING<br>FLUID   | DR. IZWAN ISMAIL                             | 2016       | 2019     | 111,708.00  | KPT                  |
| 4  | CHARACTERIZATION OF THERMAL CONDUCTIVITY AND VISCOSITY OF ALUMINA NANOCOOLANT WITH ETHYLENE- GLYCEROL BASED FLUID FOR QUENCHING PROCESS                 | PROFESOR MADYA<br>DR. AHMAD RAZLAN<br>YUSOFF | 2016       | 2019     | 82,400.00   | KPT                  |
| 5  | SYSTEMATIC SUSTAINABILITY ASSESSMENT (SSA) FOR THE CONCEPTUAL DESIGN PHASE IN MALAYSIA AUTOMOTIVE INDUSTRY  | IR. DR. FAIZ MOHD<br>TURAN                   | 2016       | 2018     | 20,000.00   | UMP                  |
| 6  | DESIGN OF PROTECTIVE HEADGEAR<br>FOR SOCCER PLAYERS THROUGH<br>EXPERIMENTAL AND COMPUTATIONAL<br>ANALYSIS   | DR. MOHD HASNUN<br>ARIF HASSAN               | 2016       | 2018     | 23,300.00   | UMP (Research Grant) |

| No | Research Title   | Main Researcher                              | Start Year | End Year | Amount (RM) | Sponsorship Agency   |
|----|--|--|------------|----------|-------------|----------------------|
| 7  | AN INTELLIGENT ROBUST CONTROL OF WHEELED MOBILE ROBOT IN RESTRICTED ENVIRONMENT USING ACTIVE FORCE CONTROL AND RESOLVED ACCELERATION CONTROL | DR. MOHAMMED<br>ABDO HASHEM                  | 2016       | 2018     | 28,300.00   | UMP                  |
| 8  | DEVELOPMENT OF A MAGNETORHEOLOGICAL PINCHED MODE VALVE FOR AUTOMOTIVE SEMI- AUTOMOTIVE SEMI-ACTIVE SUSPENSION SYSTEM                         | DR. IZWAN ISMAIL                             | 2016       | 2018     | 24,500.00   | UMP                  |
| 9  | THE DEVELOPMENT OF INTELLIGENT DRIVE SYSTEM FOR TRAJECTORY TRACKING APPLICATIONS   | DR. MUHAMMAD<br>AIZZAT ZAKARIA               | 2016       | 2018     | 23,300.00   | UMP (Research Grant) |
| 10 | DEVELOPMENT OF AL/AL2O3/GR HYBRID COMPOSITE FOR AUTOMOTIVE BRAKE DISC APPLICATION  | DR. AKM ASIF IQBAL                           | 2016       | 2018     | 32,000.00   | UMP                  |
| 11 | THE DEVELOPMENT OF AN INTELLIGENT HYBRID ACTIVE FORCE CONTROLLER FOR UPPER-LIMB EXOSKELETON  | DR. AHMAD<br>SHAHRIZAN ABDUL<br>GHANI        | 2016       | 2018     | 16,800.00   | UMP (Research Grant) |
| 12 | CHARACTERIZATION OF NANOCOOLANT<br>FOR IMPROVING COOLING CHANNEL<br>DESIGN IN HOT PRESS FORMING  | PROFESOR MADYA<br>DR. AHMAD RAZLAN<br>YUSOFF | 2016       | 2018     | 32,550.00   | UMP                  |
| 13 | DEMAND-DRIVEN INNOVATION PROJECT<br>BY PUBLIC-PRIVATE RESEARCH<br>NETWORK (PPRN)- IMPROVEMENT OF<br>THE VESSEL ENGINE AREA                   | DR. MOHD ZAIDI<br>SIDEK                      | 2016       | 2017     | 35,000.00   | UMP                  |

| No | Research Title  | Main Researcher                                       | Start Year | End Year | Amount (RM) | Sponsorship Agency |
|----|---|---|------------|----------|-------------|--------------------|
| 14 | INDUSTRIAL TESTING OF A 3-AXIS CNC<br>TAILOR WELDED BLANK LASER<br>WELDING MACHINE USING PREDEFINED<br>CLOSEST-DISTANCE VOLUME<br>INTERPOLATOR                | PROFESOR IR. DR<br>WAN AZHAR WAN<br>YUSOFF            | 2016       | 2017     | 150,000.00  | KPT                |
| 15 | INTEGRATION OF MAHALANOBIS-<br>TAGUCHI SYSTEM AND ACTIVITY BASED<br>COASTING FOR REMANUFACTURING<br>AUTOMOTIVE COMPONENTS                                     | DR. MOHD YAZID ABU                                    | 2016       | 2017     | 5,500.00    | UMP (Seed Money)   |
| 16 | EXPERIMENTAL AND COMPUTATIONAL ANALYSIS OF HEAD IMPACTS IN SPORTS   | DR. MOHD HASNUN<br>ARIF HASSAN                        | 2016       | 2017     | 5,500.00    | UMP (Seed Money)   |
| 17 | INVESTIGATION OF NOZZLE WEAR IN ABRASIVE WATER JET MACHINING  | DR. MOHD AZMIR<br>MOHD AZHARI                         | 2016       | 2018     | 3,000.00    | UMP (Seed Money)   |
| 18 | REDUCING BITS IN ELECTRODEPOSITION PROSES OF COMMERCIAL VEHICLE - A CASE STUDY  | DR. ZAMZURI<br>HAMEDON                                | 2016       | 2018     | 3,000.00    | UMP (Seed Money)   |
| 19 | EXPERIMENTAL INVESTIGATION OF<br>SINTERING BEHAVIOUR OF METAL-<br>CERAMIC GRAPED COMPOSITE<br>MATERIALS   | PROFESOR MADYA<br>DR. DEWAN<br>MUHAMMAD<br>NURUZZAMAN | 2016       | 2018     | 30,500.00   | UMP                |
| 20 | PID PARAMETER OPTIMIZATION FOR<br>CNC ADAPTIVE SERVO CONTROL<br>SYSTEM UTILIZING PARTICLE SWARM<br>OPTIMIZATION - DESIGN OF<br>EXPERIMENT (PSO-DOE) ALGORITHM | PROFESOR IR. DR<br>WAN AZHAR WAN<br>YUSOFF            | 2016       | 2019     | 4,000.00    | UMP (Seed Money)   |
| 21 | COMPUTATIONAL FLUID DYNAMICS<br>BASED EROSION MODELLING OF<br>ABRASIVE WATERJET NOZZLE  | DR. MOHD AZMIR<br>MOHD AZHARI                         | 2016       | 2018     | 2,500.00    | UMP (Seed Money)   |

| No | Research Title  | Main Researcher                                       | Start Year | End Year | Amount (RM) | Sponsorship Agency |
|----|---|---|------------|----------|-------------|--------------------|
| 22 | OPTIMIZATION OF METAL MATRIX<br>COMPOSITE MATERIALS BY APPLYING<br>SUSTAINABILITY CONSIDERATIONS<br>USING ANALYTICAL NETWORK PROCESS<br>(ANP) | DR. NANANG<br>FATCHURROHMAN                           | 2016       | 2018     | 3,000.00    | UMP (Seed Money)   |
| 23 | INVESTIGATION ON MECHANICAL PROPERTIES OF GLASS FIBER REINFORCED POLYMER COMPOSITE UNDER DIFFERENT OPERATING CONDITIONS                       | PROFESOR MADYA<br>DR. DEWAN<br>MUHAMMAD<br>NURUZZAMAN | 2016       | 2018     | 3,000.00    | UMP (Seed Money)   |