| Project SN | Project Title   | Project Type | Project Investigator<br>Name            | Academic Partner      | Industrial Partner   |
|------------|---|--------------|---|-----------------------|--|
| 1          | Security System Based on Human Iris Structure   | ARP          | Dr. Magdy Fekry<br>Mohamed Raga'ay      | Cairo University      | The Engineering Office for Integrated Projects             |
| 2          | Instructional Video Content Searching Indexing through Audio Signal Analysis With Arabic Language Support | ARP          | Dr. Mohamed Hisham<br>Farouk ElSayed    | Cairo University      | No Industrial Partner                                      |
| 3          | E-Stock Market Consultant   | PDP          | Dr. Mohamed Hassan<br>Rassmy            | Cairo University      | Egytec Engineering Co.                                     |
| 4          | Medical Diagnosis System for Endemic Using Self-<br>Organizing Data-Mining Technology                     | ARP          | Dr. Marghany Hassan<br>Mohamed          | Assiut University     | No Industrial Partner                                      |
| 5          | Miniature MEMS Spectrometer   | PDP          | Dr. Diaa Khalil                         | Ain Shams University  | Si-Ware Systems  |
| 6          | Virtual Tutor   | PDP          | Dr. Mohsen<br>AbdelRazek Ali<br>Rashwan | Cairo University      | The Engineering Company for Digital<br>Systems Development |
| 7          | Gray Images and Movies Computer-Based Coloring  | PRP          | Dr. Mohamed Abbas<br>Moursy Shouman     | Menofia University    | No Industrial Partner                                      |
| 8          | A Prototype Product for Enhancing The Capabilities of MS Project through An Integrated Tool Box Kit       | PDP          | Dr. Mohamed Abbas<br>Moursy Shouman     | El Zakazik University | ICT Professional Services                                  |
| 9          | Web-Based Management System for Power Meter Measurements  | PDP          | Dr. Rafaat El Fouly                     | Cairo University      | Edge Technology  |
| 10         | Advanced Platform for Processing Medical Images of the Heart  | PDP          | Dr. Nael Fakhry<br>Osman                | Nile University       | Diagnosoft Egypt   |
| 11         | DNA Profiling System and Biomedical Applications  | PDP          | Dr. Mohamed Essam<br>Khalifa            | Ain Shams University  | Data Management Systems                                    |
| 12         | RFID-Based Hospital Positioning System  | PDP          | Dr. Ahmed samir fahmy                   | Cairo University      | Crescent Technologies Inc.                                 |
| 13         | Intelligent Information Discovery & Processing System   | ARP          | Dr. Mohamed<br>Hashem                   | Ain Shams University  | HARF Company   |
| 14         | Universal Ethernet WIFI Enabled RFID Read/Write transceiver   | PDP          | Dr. Hany Selim Girgis                   | Assiut University     | Alfa Electronics   |
| 15         | Clear Vision: Interactive Visualization Tools for Business Intelligence                                   | ARP          | Dr. Mohamed Saad<br>Abdel Aziz ghoniem  | French University     | Microtech  |
| 16         | A Design Assistant System for Architects  | ARP          | Dr. Dina Mohamed<br>Sameh Taha          | Alexandria University | No Industrial Partner                                      |

| 17 | Design and Implementation of Online Secure Data and Voice Integrated System  | ARP | Dr. Eman Ashour                              | National Institute of<br>Laser Enhanced<br>Science                 | No Industrial Partner   |
|----|--|-----|--|--|---|
| 18 | Hardware-Software Massively Parallel Full Precision Analog Simulation Engine   | ARP | Dr. Yasser Yousry<br>Hanafy                  | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | Academy Company for<br>Communications & Information<br>Technology |
| 19 | Quality Assurance Management System  | ARP | Dr. Amr Atef Kamel                           | Cairo University   | Vertika   |
| 20 | Valuable Discovery from Hyper-Spectral Images  | ARP | Dr. Ibrahim<br>Mohamed Fahmy<br>Imam         | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner   |
| 21 | Compact Front-End Components for Wireless Networks   | PRP | Dr. Amr Mohamed<br>Ezzat Safwat              | Ain Shams University   | No Industrial Partner   |
| 22 | Human Identification Using ECG Signal  | PRP | Dr. Mohamed<br>Medhat Tawfik                 | Assiut University  | No Industrial Partner   |
| 23 | Implementation of Hardware Digital Image and Video Coder and Decoders  | PRP | Dr. Gamal ElDeen<br>Fahmy Mamdouh<br>Ibrahim | German University in<br>Cairo                                      | No Industrial Partner   |
| 24 | Ultra Low Power Bluetooth Transceiver Chip   | PDP | Dr. Yehia Ismail<br>Mohamed Kamel<br>Ismail  | Nile University  | Silicon Vision  |
| 25 | High-End 4D Ultra Sound Imaging System   | PDP | Dr. Yasser Kadah                             | Cairo University   | International Biomedical Engineering Technologies                 |
| 26 | Design and Implementation of the Physical Layer of<br>the LTE Mobile Communication System with Beam-<br>forming Antenna System | ARP | Dr. Essam Abdel<br>Fattah Sourour            | Alexandria University  | Pyramid Tech  |
| 27 | Design and Implementation of DVB-T Solution  | ARP | Dr. Ahmed Farouk<br>Mahmoud Shalash          | Cairo University   | Varkon Semiconductors   |
| 28 | Arabic Search Engine   | ARP | Dr. Mohamed Abdel<br>Raouf Abdeen            | Ain Shams University   | COLTEC Corporation  |
| 29 | Online Handwriting Arabic Character Recognition  | ARP | Dr. Khaled Mostafa<br>ElSayed                | Cairo University   | Gama Technology   |
| 30 | Infrastructure Bridges Information Modeling  | ARP | Dr. Mohamed Mahdy<br>Marzouk                 | Nile University  | BIM Engineering Solutions   |
| 31 | Designing a Computer Aided Detection System for<br>Breast Cancer Detection   | ARP | Dr. Walid Ahmed<br>Youssef                   | Helwan University  | MESC for Research & Development                                   |

| 32 | An Innovative Hotel Revenue Management System   | ARP | Dr. Mohamed  | Cairo University             | Comsys Software   |
|----|---|-----|--|------------------------------|---|
| 33 | A Product for Arabic Optical Character Recognition  | PDP | Mostafa Saleh<br>Dr. Mohsen<br>AbdelRazek Ali<br>Rashwan | Cairo University             | The Engineering Company for Digital Systems Development |
| 34 | Adaptive Power Management for Portable Wireless Applications                                  | PRP | Dr. Ahmed Mohamed<br>Salah Arafa Lasheen                 | Cairo University             | No Industrial Partner                                   |
| 35 | TraffiSense: An Integrated Visual Sensing System for Advanced Traffic Management              | ARP | Dr. Mohamed<br>Abdallah Gaber<br>ElHelw                  | Nile University              | INOTEK System   |
| 36 | Sentiment Analysis and Opinion Mining of the Arabic Web                                       | ARP | Dr. Ahmed Abdel<br>Wahed Rafea                           | American University in Cairo | Link Development  |
| 37 | Prototyping Metamaterial Antennas   | ARP | Dr. Amr Mohamed<br>Ezzat Safwat                          | Ain Shams University         | El-Nady Company   |
| 38 | Kids Stories Teller E-Reader (Al Rawy)  | ARP | Dr. Mohamed<br>Ahmed Shalan                              | Ain Shams University         | Blue Com  |
| 39 | Information Theoretic Cyber Security for Emerging Wireless Networks                           | ARP | Dr. Hesham<br>Mahmoud Elgamal                            | Nile University              | SmartApps   |
| 40 | Crystal-Less LC-Based Reference Clock   | PDP | Dr. Khaled Sharaf  | Ain Shams University         | Si-Ware Systems   |
| 41 | MEMS Based Timing Chips for IT/Mobile Applications  | PDP | Dr. Hany Fekry<br>Mohamed Ragaee                         | Ain Shams University         | MEMS Vision LLC   |
| 42 | Design and Implementation of Low-cost Ladar<br>System for Crash Avoidance                     | ARP |  | American University in Cairo | 3DI, Inc. Company                                       |
| 43 | Software Quality Control Automation Tool Suite  | ARP | Dr. Mohamed Saed<br>Abou gabal                           | Alexandria University        | Unisoft   |
| 44 | Commercialization of Decimal H/W Acceleration<br>Technology for Greener Financial Computation | PDP | Dr. Hossam Ali<br>Hassan Fahmy                           | Cairo University             | SilMinds ,LLC   |
| 45 | Soft Lock Smart Card Operating System   | ARP | Dr. Ayman Bahaa  | Ain Shams University         | SoftLock  |
| 46 | An Indoor-Outdoor Augmented Reality World<br>Browser  | ARP | Dr. Fatma Meawad   | German University in Cairo   | A - Tech Group  |
| 47 | Tool for Extensive Management and Performance Optimization (TEMPO) for 3G                     | ARP | Dr. Mohamed<br>Mohamed Khairy                            | Cairo University             | Vodafone Egypt  |
| 48 | Off-line Arabic Machine Printed Optical Character Recognition for Mobile Devices              | ARP |  | Ain Shams University         | CIT Mobidiv   |

| 49 | MEMS Optical Coherence Tomography Module   | PDP | Dr. Diaa Khalil                             | Ain Shams University                                   | Si-Ware Systems           |
|----|--|-----|---|--|---------------------------|
| 50 | Proactive Content Delivery for Mobile Networks   | ARP | Dr. Tamer Elbatt                            | Nile University  | SmartApps                 |
| 51 | Web Of Objects   | PDP | Dr. Wael Abdel<br>Moniem Farag              | Cairo University                                       | NMATec                    |
| 52 | Cloud-based Virtual Lab System   | ARP | Dr. Hesham Arafat<br>Khalifa                | Mansoura University                                    | Cloud Niners              |
| 53 | A Real-time Facial Recognition Framework on Mobile<br>Phones Using Embedded GPUs                               | PRP | Dr. Ahmed Hazem El-<br>Mahdy                | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner     |
| 54 | Development Of A Cost Effective Crop Monitoring<br>With Accurate Control For Intelligent Irrigation<br>Systems | PRP | Dr. Ahmed Sayed<br>Ahmed Allam              | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner     |
| 55 | Integrated Wireless Indoor Planning and Optimization Tool for 3G/LTE Networks                                  | ARP | Dr. Tallal Elshabrawy                       | German University in Cairo                             | Vodafone Egypt            |
| 56 | Nerve Locator Design Enhancement, Manufacturing and CE Marking   | ARP | Dr. Ayman Eldeeb                            | Cairo University                                       | Al - Manar                |
| 57 | Easi Clouds  | ARP | Dr. Fatma Omara                             | Cairo University                                       | IT - Worx                 |
| 58 | Targeting Mutated P53 for New Drug Design  | PRP | Dr. Walid ElSayed Ali<br>Gomaa              | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner     |
| 59 | Cloud-Based Platform for Advanced Processing of Cardiac Imaging  | PDP | Dr. Ahmed samir<br>fahmy                    | Cairo University                                       | Diagnosoft Egypt          |
| 60 | Originality Analyzer for Arabic Text   | PRP | Dr. Ashraf Saad<br>Hussein                  | Ain Shams University                                   | No Industrial Partner     |
| 61 | Arabic Sign Language Translator (ASLT)   | ARP | Dr. Nagwa Lotfy<br>Mostafa Bader            | Ain Shams University                                   | Business Commercial House |
| 62 | ARTS: An Accurate and Reliable Traffic Estimation System   | ARP | Dr. Mostafa Yousef                          | Egypt-Japan<br>University of Science<br>and Technology | Wireless Stars            |
| 63 | A Fully Integrated Silicon IP for Wireless Zigbee<br>Applications  | PDP | Dr. Yehia Ismail<br>Mohamed Kamel<br>Ismail | American University in Cairo                           | Silicon Vision            |

| 64 | Energy Harvesting for Self-Powered Wireless Tire Pressure Monitoring System                           | ARP | Dr. Mostafa Arafa                           | American University in Cairo                           | Smartech Group            |
|----|---|-----|---|--|---------------------------|
| 65 | Social Media Analytics  | PRP | Dr. Amir Attia Suryal                       | Cairo University                                       | No Industrial Partner     |
| 66 | DecoAR: An Indoor-Based Augmented Reality Solution for Interior Design and Real Estate Marketing      | ARP | Dr. Dina Mohamed<br>Sameh Taha              | Alexandria University                                  | ITQAN for Smart Solutions |
| 67 | eNAV: Integrated Real time Navigation and Management System for Heavy Vehicles                        | ARP | Dr. Ahmed Ibrahim<br>Ibrahim Mousa          | German University in Cairo                             | Softec International      |
| 68 | Design and Implementation of LTE Solution   | ARP | Dr. Mohamed Nafie                           | Cairo University                                       | Wasiela                   |
| 69 | Large Vocabulary Arabic Handwriting Recognition System  | ARP | Dr. Aly Fahmy                               | Cairo University                                       | TAYA IT                   |
| 70 | Photonics Integrated Circuits Verification Tool   | PRP | Dr. Mohamed<br>Swillam                      | American University in Cairo                           | No Industrial Partner     |
| 71 | Design of Energy Efficient Embedded SRAM Memory and Standard Cells for Ultra-low Voltage Applications | PRP | Dr. Mohamed Amin<br>Ibrahim Dessouky        | Ain Shams University                                   | No Industrial Partner     |
| 72 | HDMI 2.0 Verification IP  | ARP | Dr. Maged Ghoniema                          | Ain Shams University                                   | Boost valley              |
| 73 | Vehicles detection and tracking in videos in very crowded scenes employing quadrotors                 | PRP | Dr. Moataz<br>Mahmoud Abd El<br>Wahab       | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner     |
| 74 | Multi-Source Energy Harvesting for Wireless Sensor<br>Networks  | PRP | Dr. Ahmed Nader<br>Mohyeldin                | Cairo University                                       | No Industrial Partner     |
| 75 | Automatic Early Detection of Mastitis Disease in Dairy Cows   | ARP | Dr. Mohamed Rushdi                          | Cairo University                                       | Farminal                  |
| 77 | A Microfluidic Platform for Liver Cancer Cells<br>Detection, Identification and Sorting               | PRP | Dr. Yehya Hassan<br>Ghallab                 | Zewail City of Science and Technology                  | No Industrial Partner     |
| 78 | Solar Panel Characterizer   | PRP | Dr. Amr Nabil Helmy                         | Zewail City of Science and Technology                  | No Industrial Partner     |
| 79 | Low-Power 12 -Gbps Multi-Standard SERDES PHY  | PRP | Dr. Sameh Ibrahim                           | Ain Shams University                                   | No Industrial Partner     |
| 80 | Cloud-based 3D Teleradiology for Rural Areas  | PRP | Dr. Mohamed<br>Abdelazim Shaheen<br>Elgamel | Alexandria University                                  | No Industrial Partner     |

| 81 | Nano-enriched, Autonomous, and Trustworthy<br>Sensing Framework for Water-pollution           | ARP | Dr. Mohamed Rizk<br>Mohamed Rizk                   | Alexandria University                                  | Pulse for Integrated Solutions |
|----|---|-----|--|--|--------------------------------|
| 82 | Fully Integrated Weather Station Chips for Smart<br>Phones & Tablets                          | PDP | Dr. Hany Fekry<br>Mohamed Ragaee                   | Ain Shams University                                   | MEMS Vision LLC                |
| 83 | A mm-Wave Transceiver for Medical Imaging Applications  | PRP | Dr. Ahmed Ahmed<br>Eladawy Emira                   | Cairo University                                       | No Industrial Partner          |
| 84 | Speeding up Fast Fourier Transform  | PRP | Dr. Omar Ahmed<br>Nasr                             | Cairo University                                       | No Industrial Partner          |
| 85 | SEOUL (Sustainable & Environment Friendly Optimizer for Urban Landscape                       | ARP | Dr. Osama Hosny                                    | American University in Cairo                           | Smart Wave Technologies        |
| 86 | Mobile Based Jaundice Meter   | ARP | Dr. Mohamed<br>Ibrahim Ismail Owis                 | Cairo University                                       | BioBusiness                    |
| 87 | Blink! A Smartphone based Automatic Accident Detection and Notification System                | ARP | Dr. Ahmed Hazem El-<br>Mahdy                       | Egypt-Japan<br>University of Science<br>and Technology | BenalT                         |
| 88 | Indoor Positioning System based on Mobile Crowd Sensing                                       | PRP | Dr. Yasmin Aly<br>Hassan Fahmy                     | Cairo University                                       | No Industrial Partner          |
| 89 | Ultrasound Elastography Add-on Module for<br>Characterizing Liver Tissue                      | PRP | Dr. Ahmed M. Ehab<br>Mahmoud                       | Cairo University                                       | No Industrial Partner          |
| 90 | Navirize: A Calibration-free Accurate Indoor<br>Positioning System for Realistic Environments | PDP | Dr. Mostafa Yousef                                 | Egypt-Japan<br>University of Science<br>and Technology | Navirize                       |
| 91 | Inertial Stabilization Platform Product Development   | PDP | Dr. Amr Galal Eldeen<br>Ahmed Wassal               | Cairo University                                       | Si-Ware Systems                |
| 92 | Software Factory Approach for knowledge-based EHR Systems                                     | ARP | Dr. Mohamed<br>Bassuny Mohamed<br>Abou Ela Khalifa | Alexandria University                                  | Accorpa                        |
| 93 | Citrus Fruits Grading System Based on Machine Vision  | PRP | Dr. Mohamed Sharraf<br>Ismail Sayed                | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner          |
| 94 | Enhanced Source of Entangled Photons for applications in Quantum Encryption                   | PRP | Dr. Salah Ahmed<br>Sabri Obyei                     | Zewail City of Science and Technology                  | No Industrial Partner          |

| 95  | Arabic Sign Language Translator  | PDP | Dr. Nagwa Lotfy<br>Mostafa Bader      | Ain Shams University                                   | Business Commercial House |
|-----|--|-----|---------------------------------------|--|---------------------------|
| 96  | Active Implantable Neural Interface Platform   | ARP | Dr. Hassan Mostafa<br>Mostafa         | Cairo University                                       | Novela Egypt              |
| 98  | CANTrack   | ARP | Dr. Wael Abdel<br>Moniem Farag        | Cairo University                                       | Bright Skies              |
| 99  | Optimized Implementation of Tuning Mechanisms in Reconfigurable RF Resonators for Advanced Wireless Systems                        | PRP | Dr. Adham Naji                        | The British University in Egypt                        | No Industrial Partner     |
| 100 | Development of Touch Screen Platform Based on<br>Carbon Nanostructures   | PRP | Dr. Mostafa El Ashry                  | Egypt<br>Nanotechnology<br>Center                      | No Industrial Partner     |
| 101 | Automatic Arabic Sign Language Recognition from RGBD Data  | PRP | Dr. Moataz<br>Mahmoud Abd El<br>Wahab | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner     |
| 102 | Nano-Composite Anode for High Performance Li-Ion<br>Batteries  | PRP | Dr. Osama Tobail                      | Egypt<br>Nanotechnology<br>Center                      | No Industrial Partner     |
| 103 | IVISIA : Intelligent Video IP Surveillance Integrated Analytics  | PDP | Dr. El Sayed Eissa<br>Abdo Hamed      | Cairo University                                       | AvidBeam                  |
| 104 | Complete System for Energy Management Including<br>Renewable Energy Based on Smart Meter Innovative<br>Design and Machine Learning | ARP | Dr. Mohamed Ahmed<br>Mostafa Hassan   | Cairo University                                       | TieTec                    |
| 105 | Low-Cost Attitude Determination In Nanosatellites  | PRP | Dr. Mohamed Serry                     | American University in Cairo                           | No Industrial Partner     |
| 106 | Locally-developed Wireless Sensor Network Modules for Smart Internet of Things Applications  | PRP | Dr. Yasser Gadallah                   | American University in Cairo                           | No Industrial Partner     |
| 107 | Hydrocarbon Production Optimization Computer-<br>Assisted Decision   | PRP | Dr. Dalia Magdy                       | French University                                      | No Industrial Partner     |
| 108 | SIWMS: Smart Irrigation Water Management System  | ARP | Dr. Ahmed Sayed<br>Ahmed Allam        | Egypt-Japan<br>University of Science<br>and Technology | SpimeSenseLabs            |
| 109 | KetApp: Books Supercharged   | ARP | Dr. Amr Ghoneim                       | Helwan University                                      | Dashsoft                  |
| 110 | Social Media Analytics for Arabic Dialects   | ARP | Dr. Amir Attia Suryal                 | Cairo University                                       | AlKhawarizmy Software     |

| 111 | Developing Content Based Retrieval system for<br>Dermatology Image Databases   | PRP | Dr. Inas Yassin                                  | Nile University  | No Industrial Partner |
|-----|--|-----|--|--|-----------------------|
| 112 | Analyzing Trends of Discussion Topics in Community Question Answering Services   | PRP | Dr. Neamat ElTazi                                | Cairo University                                       | No Industrial Partner |
| 113 | Smart Droplet: An Enabler for Fog Networks   | PRP | Dr. Omar Nasr                                    | Cairo University                                       | No Industrial Partner |
| 114 | An Innovative Optimization Framework for a High Frequency Trading Tool for Stock Markets                               | PRP | Dr. Ayman Ahmed<br>Sabry Abdel Rahman<br>Ghoneim | Cairo University                                       | No Industrial Partner |
| 115 | Self-Powered FPGA for rapid prototyping for Wireless Sensor Nodes (WSNs)   | PRP | Dr. Hamdy Abd<br>Elhamid                         | Zewail City of Science and Technology                  | No Industrial Partner |
| 116 | BLE MANET CAD Platform For IoT   | PDP | Dr. Atef Mohamed<br>Zaky Ghalwash                | Helwan University                                      | Qoudra                |
| 117 | POTOO: A Low-Power 12-Gbps Multi-Standard SERDES PHY   | ARP | Dr. Sameh Ibrahim                                | Ain Shams University                                   | Mipex                 |
| 118 | Automatic Malfunction Analysis (AMAN)  | ARP | Dr. Abdelwahab<br>ElSamak                        | Banha University                                       | PiTechnologies        |
| 119 | Automatic Crowd Scene Analysis and Anomaly<br>Detection From Video Surveillance Cameras                                | PRP | Dr. Walid ElSayed Ali<br>Gomaa                   | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner |
| 120 | Detecting Emotional Tone and Sentiment Targets in Arabic Tweets  | PRP | Dr. Samhaa ElBeltagy                             | Nile University  | No Industrial Partner |
| 121 | PCB Inspection Using Intelligent Analysis of<br>Thermograms  | PRP | Dr. Mohamed Hisham<br>Farouk ElSayed             | Cairo University                                       | No Industrial Partner |
| 122 | A High Performance Bioinformatics Software Package for Pathogen Detection and Virulence Elements Comprehension (PDVEC) | PRP | Dr. Mahmoud El<br>Hafnawy                        | Nile University  | No Industrial Partner |
| 123 | A Cost Effective Microwave System for Soil Sanitation  | PRP | Dr. Adel Bedair                                  | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner |
| 124 | Droplet Formation on Microfluidic Chip for<br>Miniaturized PCR Applications  | PRP | Dr. Ahmed Mohamed<br>Rashad Fath el Bab          | Egypt-Japan<br>University of Science<br>and Technology | No Industrial Partner |

| 125 | Sentiment Analysis Tool for Arabic   | PDP | Dr. Ahmed Abdel<br>Wahed Rafea       | American University in Cairo                           | The Engineering Company for Digital Systems Development |
|-----|--|-----|--------------------------------------|--|---|
| 126 | Call Center Voice Classification using Big Data Techniques   | ARP | Dr. Mohamed Nafie                    | Cairo University                                       | Linux Plus  |
| 127 | TESTICIDE, Tester's Pesticide  | ARP | Dr. Hassan Fouad<br>Mohamed El Sayed | Helwan University                                      | TESTICIDE   |
| 128 | Humanized Digital Marketplace  | PRP | Dr. Mohamed<br>Abdelghany            | American University in Cairo                           | No Industrial Partner                                   |
| 130 | Face In/Out: Time and Attendance Tracking System using Facial Biometrics, Emotional Expressions and Mobile Devices             | ARP | Dr. Moumen<br>Elmelegy               | Assiut University                                      | UESystems Co.   |
| 131 | Ultrasound Elastography Add-on Module for<br>Detecting Breast Tumors   | ARP | Dr. Ahmed M. Ehab<br>Mahmoud         | Cairo University                                       | DilenyTech Smart Solutions                              |
| 132 | An Electrokinetic Based Microfluidic Platform for DNA Detection, Identification and Sorting                                    | PRP | Dr. Yehya Hassan<br>Ghallab          | Zewail City of Science and Technology                  | No Industrial Partner                                   |
| 133 | A Ray Tracing Simulator for Radio Wave Propagation<br>Based on Geometric Algebra   | PRP | Dr. Sherif Mohamed<br>Abou El Enen   | Port-Said University                                   | No Industrial Partner                                   |
| 134 | Photonic superlattice for generating and engineering hyperentangled_photons Core of quantum computation and encryption systems | PRP | Dr. Salem Farag<br>Salem Hegazy      | Zewail City of Science and Technology                  | No Industrial Partner                                   |
| 135 | Tunable ultra-low phase noise MEMS   | PRP | Dr. Haytham Abdel<br>Salam Omran     | German University in Cairo                             | No Industrial Partner                                   |
| 136 | BlinkApp! A Smartphone based based Automatic<br>Accident Detection, Risk Assessment, & Notification<br>System                  | PDP | Dr. Ahmed Hazem El-<br>Mahdy         | Egypt-Japan<br>University of Science<br>and Technology | BlinkApp  |
| 137 | AutoAIDO:Automation of Analog IC Design and Optimization   | PRP | Dr. Hisham Abdel<br>Salam Omran      | Ain Shams University                                   | No Industrial Partner                                   |
| 138 | Nun Arabic Text To Speech  | ARP | Dr. Hazem Mahmoud<br>Abbas           | Ain Shams University                                   | Global Technical Services                               |
| 139 | eMicroscopy eHealth System for Automated Microscopy-based Lab Diagnosis  | PRP | Dr. Moumen<br>Elmelegy               | Assiut University                                      | No Industrial Partner                                   |
| 140 | xPython, A Trusted Python Environment for the Internet of Things and Embedded Systems  | ARP | Dr. Mohamed Aly Aly<br>Sobh          | Ain Shams University                                   | GX Computing  |
| 141 | Ku-Band Printed Antenna for Movable Earth<br>Segment Applications  | PRP | Dr. Ahmed Mohamed<br>Atteya Salem    | Electronics Research<br>Institute                      | No Industrial Partner                                   |

| 142 | M2auth Multimodal Behavioral Biometric Authentication Framework on Smartphones   | PRP | Dr. Ahmed Mohamed<br>Mahfouz                  | Minia University                                       | No Industrial Partner             |
|-----|--|-----|---|--|-----------------------------------|
| 143 | ESITIP - Personal Electric Autonomous Vehicle (PEAV)   | PDP | Dr. Mohamed Ahmed                             | Ain Shams University                                   | MATGR for Trading & Engineering   |
| 144 | Development of Microfluidic System for Miniaturized PCR Applications   | ARP | Dr. Ahmed Mohamed<br>Rashad Fath el Bab       | Egypt-Japan<br>University of Science<br>and Technology | Alex Biotechology                 |
| 145 | eCervello-A Novel Multi-tier Big Data Analytics<br>Framework for IoT-based Predictive Maintenance                          | ARP | Dr. Tamer Elbatt                              | American University in Cairo                           | IOTBLUE MEA                       |
| 146 | Cloud-based Cardiac CT Analytics   | ARP | Dr. Tamer Basha                               | Cairo University                                       | Advanced Intelligent Technologies |
| 147 | Infinity LED Driver A Long-Lifetime Integrated AC-DC LED Driver  | ARP | Dr. Mohamed<br>AbdelAziz Mohalel<br>Oraby     | Aswan University                                       | Vidatronic Egypt                  |
| 148 | Lumiere(c) Integrating EEG and Facial Expressions for the Automatic Detection of Cognitive Skills                          | ARP | Dr. Hatem Adel Fayed                          | Zewail City of Science and Technology                  | SMACRS                            |
| 149 | iGRASP (innovative Glove for Rehabilitation and Assistance using Smart-features and Performance-feedback)                  | PRP | Dr. Mohamed<br>Ibrahim Mohamed<br>Hassan Awad | Ain Shams University                                   | No Industrial Partner             |
| 150 | Power Management System for Biomedical<br>Implanted Devices  | PRP | Dr. Ahmed Nader<br>Mohyeldin                  | Cairo University                                       | No Industrial Partner             |
| 151 | A Micro Electrical Impedance Spectroscopy for (μΕΙS)Breast Cancer Cells Electrical Parameters Detection and Identification | PRP | Dr. Yehya Hassan<br>Ghallab                   | Zewail City of Science and Technology                  | No Industrial Partner             |
| 152 | Smart Integrated On-Board Battery Charger for<br>Electric Vehicle Applications   | PRP | Dr. Ayman Sami<br>Abdel Khalek                | Alexandria University                                  | No Industrial Partner             |
| 153 | Low cost complexity equalization system for enhancing the capacity and reach of multimode optical fibers                   | PRP | Dr. Karim Abdel<br>Fattah El Sayed Saied      | Zewail City of Science and Technology                  | No Industrial Partner             |
| 154 | Meta-cognitive Module for Optimized LTE-UWiFi Coexistence  | PRP | Dr. Amr El Sheif                              | Nile University  | No Industrial Partner             |
| 155 | Deep learning-based resolution enhancement of miniaturized FTIR spectrometers  | PRP | Dr. Sherif Abou El<br>Aneen                   | Port-Said University                                   | No Industrial Partner             |
| 156 | Integrated optical mode division multiplexers on silicon photonics technology  | PRP | Dr. Salwa El Saban                            | Helwan University                                      | No Industrial Partner             |

| 157 | An Efficient Power Delivery Structure for Data<br>Centers   | PRP | Dr. Mostafa Saad<br>Hamad | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner           |
|-----|---|-----|---------------------------|--|---------------------------------|
| 158 | Design and Implementation of hardware Internet of Things (IoT) Adaptive Security Supporting System                          | PRP | Dr. Hassan Mostafa        | Zewail City of Science and Technology                              | No Industrial Partner           |
| 159 | Edu-Edge Adaptive e-Learning Platform   | PDP | Dr. Shehab<br>Gamaleldin  | Al - Azhar University  | 4S Technology                   |
| 160 | ESITIP - PVOLTAI4_Research And Development of O&M Technologies For PV Plants Management                                     | PDP | Dr. Yehia Ismail          | American University in Cairo                                       | Empower Energy System           |
| 161 | CLIP - Using Machine Learning to Reinforce Customer<br>Loyalty Intelligent Personalization                                  | ARP | Dr. Mostafa M. Aref       | Ain Shams University   | MiniMax Software Solution       |
| 162 | A Robust Wearable Activity Recognition System based on IMU Signals  | PRP | Dr. Walid Gomaa           | Egypt-Japan<br>University of Science<br>and Technology             | No Industrial Partner           |
| 163 | Environment-Friendly Electromagnetic-Based Solutions for the Cotton Leaf Worm in Egypt                                      | PRP | Dr. Haitham Sharaf        | Cairo University   | No Industrial Partner           |
| 164 | Smart Image-Based Localization for Augmented Reality application  | PRP | Dr. Samia Meshaly         | Electronics Research<br>Institute                                  | No Industrial Partner           |
| 165 | Classification and prediction of lung cancer using both Genomic and CT scan Image Analyses                                  | PRP | Dr. Moataz<br>Abdelwahab  | Egypt-Japan<br>University of Science<br>and Technology             | No Industrial Partner           |
| 166 | CIPOLIVE  | ARP | Dr. Ahmed Khattab         | Cairo University   | Smartech Group                  |
| 167 | Intelligent Thermal Imaging Processor for IoT application   | PRP | Dr. Yasmin Fahmy          | Cairo University   | No Industrial Partner           |
| 168 | Wirelessly-Controlled Fully Implantable Smart Micropumping System for Local Anti-Cancer Drug Delivery in Pediatric Patients | PRP | Dr. Mohamed Serry         | American University in Cairo                                       | No Industrial Partner           |
| 169 | Orange Real-Time grading Machine  | PDP | Dr. Hisham El Deeb        | Electronics Research<br>Institute                                  | Fruitful Solutions              |
| 170 | Contactless Instantaneous Blood Pressure Monitoring For The Intensive Care Unit (CIBPM)                                     | ARP | Dr. Osama Ahmed           | Aswan University   | Advanced Computer Systems (ACS) |
| 171 | Plant leaf diseases diagnosis and treatment App   | ARP | Dr. Mona Nasr             | Helwan University  | Data Technology                 |
| 172 | Kids Guard SAFEty framework (KG-Safe)- An Al-based system for kids safety   | PRP | Dr. Omar Nasr             | Cairo University   | No Industrial Partner           |

| 173 | Low-Power Acquisition System for Continuous Wireless Blood Pressure Monitoring  | PRP | Dr. Sameh Ibrahim             | Ain Shams University   | No Industrial Partner                          |
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| 174 | Embedded Video Surveillance based on IoT & ML for Smart City  | PRP | Dr. Mohamed<br>Abdelmegeed    | German University in Cairo   | No Industrial Partner                          |
| 175 | Smart Water Meter   | PDP | Dr. Hesham El Deeb            | Electronics Research<br>Institute                                  | The Engineering Office for Integrated Projects |
| 176 | Meta learning core for Vehicular Networks   | PRP | Dr. Maha Sabrouty             | Egypt-Japan<br>University of Science<br>and Technology             | No Industrial Partner                          |
| 177 | Smart Production Planning & Scheduling (SPPS)   | PRP | Dr. Lamia Shihata             | German University in Cairo   | No Industrial Partner                          |
| 178 | Smart Spout A Water Quality System based on Big<br>Data Analytics and Internet of Things in the Context<br>of Smart City Initiatives in Egypt | PRP | Dr. Ayman El Sayed            | Menofia University   | No Industrial Partner                          |
| 179 | A Software Defined Radio-based LoRa Receiver for<br>Dense IoT Deployments within Smart Cities   | PRP | Dr. Tallal Elshabrawy         | German University in Cairo   | No Industrial Partner                          |
| 180 | Android Malware Detection via Reservoir Computing and Graph Convolutional Deep Learning Networks  | PRP | Dr. Khaled El Sayed           | Cairo University   | No Industrial Partner                          |
| 181 | LDLCT A Framework for Lesion Detection on Lung CT Scan  | PRP | Dr. Eman Badr                 | Zewail City of Science and Technology                              | No Industrial Partner                          |
| 182 | Wireless Ultrasound Transducer Interface for<br>Industrial IoT Level Sensing Applications   | PDP | Dr. Hany Ragie                | Ain Shams University   | MEMS Vision LLC                                |
| 183 | Augmented reality to measure imagination using dynamic visualization and tangible interactions  | PDP | Dr. Niveen El Sayed           | No Academic Partner  | APPTCOM software development                   |
| 184 | Smart online platform for Breast Imaging and Reporting (BE-SMART)   | PDP | Dr. Ahmed Mahmoud<br>Ehab     | No Academic Partner  | DilenyTech Smart Solutions                     |
| 185 | AvidHealth On Detecting and Enforcing Compliance with Public Health Guideline   | PDP | Dr. Hani El Gebally           | No Academic Partner  | AvidBeam                                       |
| 186 | A Smart Public Parking System   | ARP | Dr. Mostafa Saad<br>Hamad     | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | AIT Systems                                    |
| 187 | EME - Zeus An electric powertrain for mid-size city transport vehicles  | PDP | Dr. Ahmed Nagiub El<br>Mekawy | Alexandria University  | Bright Skies                                   |

| 188 | EME - MEMS SAW-Based Reference Clock   | PDP | Dr. Mohamed<br>Dessouky                         | No Academic Partner  | Pearl Semiconductor Egypt |
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| 189 | Smart Vent A low-cost, Al-enabled, connected ventilator  | ARP | Dr. Ahmed El Mahdy                              | Egypt-Japan<br>University of Science<br>and Technology             | Spectrum Diagnostics      |
| 190 | Myo-Speech Al-Based System for Facilitating Societal Integration of the Speech Impaired  | PRP | Dr. Ahmed Morsy                                 | Cairo University   | No Industrial Partner     |
| 191 | EME FabArtist – Home 3D Printing Solution for Kids & Families  | PDP | Dr. Hisham Haddara                              | No Academic Partner  | Fab - Minds               |
| 192 | VCOACH Virtual Coaching for Indoors and Outdoors Sporting  | ARP | Dr. Walid Gomaa                                 | Egypt-Japan<br>University of Science<br>and Technology             | XIOT LLC                  |
| 193 | BCIDroid A Universal Brain-controlled Interface for<br>Smartphones   | PRP | Dr. Seif Eldin<br>Mohamed Eldawlatly            | German University in<br>Cairo                                      | No Industrial Partner     |
| 194 | Smart Integrated On-Board Battery Charger for<br>Electric Vehicle Applications   | ARP | Dr. Ayman Samy<br>Abdel-Khalik                  | Alexandria University  | AWB Electronics, LTD      |
| 195 | Lung Cancer Detection in Chest X   | PRP | Dr. Mustafa Ahmed<br>Ibrahim Mohamed<br>Elattar | Nile University  | No Industrial Partner     |
| 196 | Scalable Three-Phase AC Module -Smarter System for Next Era Photovoltaic System  | PRP | Dr. Mohammed Orabi                              | Aswan University   | No Industrial Partner     |
| 197 | Interactive Smart Application for Museums<br>Education (iSAME)   | PRP | Dr. Mohamed Saeed<br>Mohamed Darweesh           | Nile University  | No Industrial Partner     |
| 198 | OnChipBiosensor  | PRP | Dr. Mohamed<br>Swillam                          | American University in Cairo                                       | No Industrial Partner     |
| 199 | Cordoba Ethernet & CAN Bus; Monitor & Tester for Automotive Busses   | PRP | Dr. Sherif Hamad                                | Ain Shams University   | No Industrial Partner     |
| 200 | An Al-Enabled Virtual Reality Training Tool for<br>Mental Healthcare Professionals Working with<br>People with Psychotic Disorders | PRP | Dr. Nour Eldeen<br>Hassan ElMadany              | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner     |
| 201 | The Analog Designer's Toolbox (ADT)  | ARP | Dr.Hisham Abdel<br>Salam Omran                  | Ain Shams University   | Master Micro              |

| 202 | A Stress Management and Assessment System Using Virtual Reality, Wearables, and Artificial Intelligence           | PRP    | Dr. Omneya Attalah                              | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner             |
|-----|---|--------|---|--|-----------------------------------|
| 203 | Multi-wavelength laser source based on silicon micro-<br>resonator and dense wavelength division<br>demultiplexer | PRP    | Dr. Hussein Essa<br>Abdel salam Kotb            | Ain Shams University   | No Industrial Partner             |
| 204 | Radiation Dosimeter Based on MOSFET Technology (RadFET)   | PRP    | Dr. Amr Mamdouh<br>Bayoumi                      | Zewail City of Science and Technology                              | No Industrial Partner             |
| 205 | Efficient designs of plasmonic functional devices for future optical communication networks                       | PRP    | Dr. Salah Ahmed<br>Sabri Obyei                  | Zewail City of Science and Technology                              | No Industrial Partner             |
| 206 | A Data-driven Assessment approach for the Economic Viability of Unconventional Oil and Gas Reservoirs             | PRP    | Dr. Nourhan Tarek<br>Refaat Sakr                | American University in Cairo                                       | No Industrial Partner             |
| 207 | Multi-Purposes Reading IoT-Based Smart Platform-<br>Contract signing delay  | PRP    | Dr. Ahmed Soltan                                | Nile University  | No Industrial Partner             |
| 208 | Dentistry digitizing (DentCase All-in-one dental 3D printing workflow)  | PDP    | Dr. Alaa Eldeen Fathy<br>Rizk Thabet<br>Mohamed | Ain Shams University   | Mogassam Labs                     |
| 209 | Virtual Reality-Based System for Neck Rehabilitation in Work Environments   | PRP    | Dr. Ahmed Fathy<br>Mohamed El Kabany            | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner             |
| 210 | Integrated Application for Creating 3D Models out of 2D Images  | PDP    | Dr. Mohamed Abdel<br>Megeed Salem               | German University in Cairo   | ITQAN for Smart Solutions         |
| 211 | Cloud-based Cardiac CT Analytics  | PDP    | Dr. Tamer Basha                                 | Cairo University   | Advanced Intelligent Technologies |
| 212 | Integrated Applications for Video Surveillance for<br>Smart Cities Using IoT and Edge Computing                   | ARP    | Dr. Mohamed Abdel<br>Megeed Salem               | German University in Cairo   | NHANC for Cloud Technology        |
| 213 | Development of Low-Cost Silk Nanocomposite Multifunctional Sensors for Human Health Monitoring                    | ARP    | Dr. Amr Essawy Saleh                            | Cairo University   | EvoSmart ltd.                     |
| 214 | Smart-TO2 Bandage For Wound Healing   | ESITIP | Dr. Mohamed Serry                               | American University in Cairo                                       | Pulse for Integrated Solutions    |
| 215 | OneAppRISCV Application Specific RISC-V Core<br>Generator   | PRP    | Dr. Cherif Ramzi<br>Salama                      | American University in Cairo                                       | No Industrial Partner             |
|     |   |        |   |  |                                   |

| 216 | Ring Oscillator Based Capacitive Sensor Array for<br>High-Speed Flow Cytometry  | PRP | Dr. Yehia Ismail           | American University in Cairo                                       | No Industrial Partner |
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| 217 | Research-Scale Benchtop Equipment for CMOS<br>Fabrication   | PRP | Dr. Amr Mamdouh<br>Bayoumi | Zewail City of Science and Technology                              | No Industrial Partner |
| 218 | TACT-Pro  | PDP | Dr. Ahmed Median           | Nile University  | Interact Labs         |
| 219 | An Al-Based Helpline and a Holistic Mental Health Platform for Arabic Speakers  | ARP | Dr. Mohamed El<br>Ramly    | Cairo University   | Nagah Now             |
| 220 | TALENTINO   | ARP | Dr. Mostafa ElShafei       | Zewail City of Science and Technology                              | Arete Consulting      |
| 221 | A Cloud-Based Battery Management System for<br>Electric Vehicles using Digital Twin-Guides  | PRP | Dr. Eman Hamad             | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner |
| 222 | An Underwater AR based System for Marine Life Detection and Classification for Divers and Tourists  | PRP | Dr. Amr El Sherif          | Egypt University of<br>Informatics                                 | No Industrial Partner |
| 223 | Ventilator with a smart ultrasound system to control ventilator parameters  | PDP | Dr. Aboubakr Youssef       | No Academic Partner  | Elmashreq             |
| 224 | Development of standalone device for improving the detection of viral infections for biological samples via automated microfluidic approach | ARP | Dr. Mahmoud Abdel<br>Moez  | Assiut University  | SICO                  |
| 225 | Pre-Emergency Alert IoT System Based on Wearable Devices for Diabetic Patient   | ARP | Dr. Ahmed Soltan           | Nile University  | Acuanix               |
| 226 | Development of A new Automatic External Defibrillator   | PRP | Dr. Mohsen<br>Abelnaiem    | EJUST  | No Industrial Partner |
| 227 | Optimization of Fuzzy Electric Vehicle Routing Problem  | PRP | Dr. Mohamed Ahmed<br>Wahby | Nile University  | No Industrial Partner |
| 228 | A Blockchain Based Autism Service Platform  | PRP | Dr. Khaled Mahar           | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner |
| 229 | SPECTRAWARE SPECTRum AWAREChip for intelligent and Secure Wireless  | ARP | Dr. Amr Wassal             | Cairo University   | Inspectrum            |
| 230 | Towards Smart Systems in Water Desalination<br>Industry–Faults Detection Employing Machine<br>Learning                                      | PRP | Dr. Amr Abdelkader         | The British University in Egypt                                    | No Industrial Partner |

| 231 | A Complete Breast Cancer Detection System using Microwave Imaging sensor  | PRP | Dr. Dalia Nashaat          | Badr University  | No Industrial Partner                                     |
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| 232 | Deep Learning-based Solution for Code Cloning Detection   | PRP | Dr. Rabab Abdel<br>Kader   | Port-Said University   | No Industrial Partner                                     |
| 233 | Al-based Analysis for Internet of Video Things<br>Surveillance Data in Smart Cities   | PRP | Dr. Mohamed Saleh          | Pharous University   | No Industrial Partner                                     |
| 234 | Robotic-Assisted Intravenous Injection System   | PRP | Dr. Omar Shalash           | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner                                     |
| 235 | Modular smart mobile robot  | PDP | Dr. Mahmoud Magdy          | British University in<br>Egypt                                     | Innovision Systems  |
| 236 | ADT Porting Assistant   | ARP | Dr. Hisham Omran           | Ain Shams University   | Master Micro  |
| 237 | A Software Defined Radio-based LoRa Solution for<br>Dense IoT Deployments within Smart Cities   | ARP | Dr. Tallal Elshabrawy      | German University in Cairo   | Smart Solutions for Technology<br>Management (SSTM Egypt) |
| 238 | EME - A Fully-Integrated Transceiver ASIC for<br>Handheld Ultrasound Imaging Application  | PDP | Dr. Essam Sobhy            | No Academic Partner  | MEMS Vision LLC   |
| 239 | EME Calida nCPAP  | PDP | Dr. Sherif El Gohary       | Cairo University   | BioBusiness   |
| 240 | Development of Binder Jet Additive Manufacturing Machine for Metallic and Ceramic Products  | ARP | Dr. Ahmed El<br>Sabbagh    | AinShams University  | Robota  |
| 241 | Smart Spout A Water Quality System based on Big<br>Data Analytics and Internet of Things in the Context<br>of Smart City Initiatives in Egypt | ARP | Dr. Ayman El Sayed         | Menoufia University  | EA for Software Solutions                                 |
| 242 | Deep Learning-based Video Anomaly Detection<br>Framework for Intelligent Transportation Systems   | PRP | Dr. Lamiaa El Refaie       | Banha University   | No Industrial Partner                                     |
| 243 | Development of a Smart DataAcquisition system for Lower LimbExoskeletons (SDALLE)   | PRP | Dr. Hanady Hussein<br>Issa | Arab Academy For<br>Science, Technology<br>& Maritime<br>Transport | No Industrial Partner                                     |