

Department of Science and Technology - Philippine Council for Industry, Energy and Emerging Technology Research and Development (DOST - PCIEERD)

Physical Report of Accomplishments (as of 3rd Quarter, FY 2018)

Program: National Industry, Energy and Emerging Technology Sectors R&D Program

Organizational Outcome: Increased benefits to Filipinos from scientific knowledge and technological innovations for productivity and competitiveness


Output/Outcome Indicators	Targets	Accomplishments	Remarks
Output Indicators			
Number of projects funded	100	174	The figure includes DOST and PCIEERD funded projects. PCIEERD – GIA – 135 DOST – GIA - 39
Number of projects monitored	330	220	There are 320 ongoing projects of the Council as of 3 rd Quarter.
Percentage of projects completed which are published in peer-reviewed journals, presented in national and/or international conferences, or with IP filed or approved	50%	56%	Out of 307 completed projects from 2014 – 2017 there were 150 projects with publication in peer-reviewed journals, presented in national and/or international conferences, or with IP filed or approved technologies.
Outcome Indicators			
Percentage of priorities in the Harmonized National R&D agenda (HNRDA) addressed	90%	100%	

Output/Outcome Indicators	Targets	Accomplishments	Remarks
Number of partnerships with public and private stakeholders and international organizations	20	86	The figure comprises 66 Higher Education Institutes (HEIs) and 20 local and international public and private organizations.

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**List of Funded Projects
(January – September 2018)**

	Project Title	Implementing Agency
PCIEERD-GIA Projects		
1	Geopolymerization and its Potential Application in Artisanal Gold Mine Tailings	Central Mindanao University (CMU)
2	Establishment of Common Service Facility (CSF) for Artisanal Small-Scale Gold Mining in Northern Mindanao	Mindanao State University -Iligan Institute of Technology (MSU-IIT)
3	Sustainable Wastewater Treatment Systems with Nutrient (SWAN) Recovery	De La Salle University (DLSU)
4	Development of Data Analytics-Ready Info Unified System (DARIUS) for Agile Delivery of Regional Services	DOST IV - A
5	Binary Gels- Rheology of Two-Component Biopolymer Hydrogels Investigated using Optical Tweezers and Non-Linear Rheometry	University of San Carlos (USC)
6	Improvement of Food Security on Poultry Products by Upgrading Farm Yield and Efficiency through the Introduction of Highly Tailored Farm-Specific Improvements	Farmwatch Solutions, Inc.
7	Development of an Enhanced Radio Frequency Mesh Network to Track and Monitor Boats at Sea Using Fame Transponder	Futuristic Aviation and Maritime Enterprise, Inc.
8	Human Resource Development Program (Financial Grants to: Visiting Professorship and Sandwich Programs, Attendance to Conferences, and the like related to the sectors of the Council)	Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)
9	Improvement of Gong Fabrication Processes Through S&T Intervention at Mankayan, Benguet	DOST Region CAR and Metals Industry Research and Development Center (MIRDC)
10	Package Development of Bakery Product and Field Testing of Ready-To-Eat (RTE) Smoked Fish Rice Meal and Sweet Potato as Disaster/Relief Food-Phase 2	Industrial Technology Development Institute (ITDI)
11	Standards and Testing Automated Modular Platform (STAMP)	UP Diliman
12	Characterization of Tailings and Monitoring of the Integrated Gold-Copper Mineral Processing Pilot Plant in Benguet	DOST Region CAR
<i>Processing of Bio-based Polyols and Polyurethanes for Industrial Applications</i>		
13	Development of Polyurethane -Based Packing Materials and Anti-Corrosive Coatings from Vegetable Oils	Mindanao State University -Iligan Institute of Technology (MSU-IIT)
14	Characterization and Separation of Heavy Minerals in the Alluvial and Beach Sands in San Vicente, Northwestern Palawan: Phase 1	Philippine Nuclear Research Institute (PNRI)
15	Design and Development of an Automated Multi Commodity Heat Pump Dryer	Adventist University of the Philippines (AUP)
16	Techno-Economic Feasibility Study of Micro-Grid in A Remote Community	Mindanao State University -Iligan Institute of Technology (MSU-IIT)
17	Development of Philippine Structural Integrity Monitoring System for Critical Infrastructure in Metro Manila -Phase 1	Mapua Institute of Technology (MIT)
<i>Development of a Fixed-Wing Short Take Off and Landing (STOL) Unmanned Aerial Vehicle (UAV) With Cooperative Capability for DRRM</i>		

	Project Title	Implementing Agency
18	Project 1. Design and Fabrication of an Airframe for Medium-Range, Short Take-off and Landing UAV	FEATI University
19	Project 2. Development of a Flight Controller for A Modular UAV	De La Salle University (DLSU)
20	Project 3. Cooperative UAV-UGV Missions and Applications with Custom Communications and Imaging Capabilities	Ateneo de Manila University (ADMU)
	<i>High Throughput Processing of Functional Thin Films using Gaseous Discharges</i>	
21	Project 1. Development of Direct Current (DC) Plasma System for Ti-Al-C Thin Film Synthesis	Ateneo De Manila University (ADMU)
22	Project 2. Development of Radio Frequency (RF) Plasma System for Ti-Al-N Thin Film Synthesis	UP Diliman
23	Ionic Liquid Assisted Electrospinning of Conductive Nanofibers as Solid Polymer Electrolyte/Separator Membrane of Solid State Supercapacitor	UP Diliman
24	Generalized Automated Microfluids And Micro-Actuator Assembly (GAMMA)	UP Diliman
25	Filipinnovation Entrepreneurship Corps: Enabling Researchers to Assess Commercial and Societal Value of their Research	De La Salle University (DLSU)
26	Development and Social Media Reading Tool for Filipinos	Senti Techlabs Inc.
27	Beta Testing of Biotechnology Kits for Stem Education	Kinovette Scientific Solutions Co.
28	Design and Development of a PLC-based High Capacity Tissue Culture Growth Chamber	Cavite State University (CavSU)
29	BCDA	
30	Young Innovators Program (YIP)	Multi-Agency
31	Design, Prototyping of Salt Processing Equipment (Washer, Dryer, Iodizer, Crystallizing Pan, Furnace, Concentrator (Ion -Exchange Membrane)	Industrial Technology Development Institute (ITDI)
32	Performance Evaluation of Dipstick Assay Format for Detection of Salmonellae in Selected Food Matrices	UP Los Baños
33	Optimization of Ready-to-Drink Sweet Potato Leaf Extract (SPLE) Beverages through the UP-DOST Food Innovation Facility	UP Diliman
34	Cyber-Physical Transportation System	UP Diliman
35	Modification of Road Train Energy Storage System using Lithium Ion Battery	Metals Industry Research and Development Center (MIRDC)
36	Recycling and Recyclability Index for End-Of-Life Jeepsneys	University of Asia and the Pacific
37	Development of a HFDR Ship Tracking Algorithm Software for Maritime Surveillance, Search and Rescue	Mapua Institute of Technology (MIT)
38	Ultrafast Mbe-Grown Terahertz Photoconductive Antenna Devices	UP Diliman
39	Development of a Passive Neutron Spectrometry System (PNSS)	Philippine Nuclear Research Institute (PNRI)
40	Uncooled Carbon Nanotube Microbolometers	UP Baguio
	<i>Smart Plant Production in Controlled Environments (SPICE)</i>	
41	Project 1. Standalone Urban Farm	UP Diliman
42	Project 2. Sensor-Based Monitoring and Analytics for Smart Hydroponics (SMASH)	UP Diliman

	Project Title	Implementing Agency
43	Project 3. Establishment of Soilless Culture Technology for Urban Food Production)	UP Diliman
44	Project 4. Ex-Situ Conservation through Micropropagation Cryopreservation of Native Plant Species	UP Diliman
45	Embedding of Functional Materials onto Paper for Antimicrobial and Electromagnetic Shielding Applications	UP Los Baños
46	Pulp-To-Print: Development of Print-Ready Cellulose Composites from Paper Mulberry	UP Diliman
47	Angular Goos-Hanchen Shift: An Optical Phenomena for Ultra-Thin Film Thickness Measurement	UP Diliman
48	Development of a Raman Microscopy and Spectroscopy (RMS) Setup	UP Diliman
49	Fringe-Area Data Access by Transient Altitude Provision	De La Salle University (DLSU)
50	One Click: Android/Web-based Student Response and Understanding Visualizer	Mapua Institute of Technology (MIT)
51	Fabrication of Metal Oxide Thin Films for Optical Coatings with Plasma Assisted Deposition using a Plasma Enhanced Chemical Vapor Deposition (PECVD) System	Ateneo De Manila University (ADMU)
52	Flood Risk Assessment for Mitigation and Effective Response (FRAMER) of Riverine Towns in Selected River Basins in Cavite, Batangas and Quezon Provinces using Most Recent Lidar DEM	Mapua Institute of Technology (MIT)
53	Original Content Development Project	Toon City Academy
54	Development of Data Analytics, Big Data, and Artificial Intelligence to Build a Smart Restaurant Management Platform	Restograph Inc.
55	Production of Nanocellulose Crystals: Powder, Advanced and Derivative Products for Various Industry Applications	Nanotronics Inc.
56	Development of an Alternative Credit Scoring Model Applying Machine Learning in Financing Farmers	Cropital Enterprises Corporation
57	Capability Building on Energy Efficiency and Conservation (EE&C) for State Universities and Colleges of Six (6) Regions as Demonstration Sites	Industrial Technology Development Institute (ITDI)
	<i>Infrastructure Development Program (IDP)</i>	
58	Establishment of an Additive Manufacturing Research Laboratory	Bataan Peninsula State University
59	Establishment of A Wind Turbine Development and Testing Laboratory	Central Philippine University
60	Strategic Communication Approaches to Boost the Philippine Nuclear Research Institute (PNRI) Promotions	Philippine Nuclear Research Institute (PNRI)
61	DIWATA-2 Interactive Exhibit	Bonifacio Art Foundation, Inc.
	<i>Wastewater Treatment System Upgrading Program (WATSUP)</i>	
62	Enhancing the Applicability of the Vertical Helophyte Filter Systems for Small Communities, Local MSMEs and Public Entities	DOST Region XI/University of the Immaculate Conception
63	Pilot Scale Production of Nickel Pig Iron from Low Grade Laterite Ore	Department of Environment and Natural Resources - Mines and Geosciences Bureau (DENR - MGB)
	<i>SCALE: Synergistic Capacity Advancement in the Management of Laguna Lake</i>	

	Project Title	Implementing Agency
64	Endocrine Disruptors, Antibiotics and Heavy Metals in Laguna Lake Water: Impacts on Food and Water Security	UP Diliman
65	Microbial Source Tracking in Selected Tributaries of Laguna de Bay	UP Diliman
66	Trace Organics and Metals in Commodity Fish: Method Optimization, Extent of Contamination and Health Risk due to Fish Intake	UP Diliman
67	Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plat in the Regions (Bicol)	DOST Region V/UP Diliman
68	Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plat in the Regions (Caraga)	DOST Region XIII/UP Diliman
69	Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plat in the Regions (Compostela Valley)	DOST Region XI/UP Diliman
70	How Do We Feed One Hundred Million IEMAGINEERING Systems for Food Security	UP Industrial Engineering Alumni Association Inc.
71	Establishment of the Asian Institute of Management-Dado Banato Incubator	Asian Institute of Management, Inc.
72	Smart Vision: Artificial Intelligence-Guided Vision System for the Blind	Grayscale Marketing Consultancy
73	Assessment of DOST Technology Business Incubators and Road Mapping	TT12 Technology Forum Inc.
74	Design and Development of Processing Machineries for Honeybee and Intermediate Products	Don Mariano Marcos Memorial State University
	<i>Assessment of Metal Content of Food and Water Resources in Volcanic Impacted Areas</i>	
75	Project 2. Metal Content of Water Supplies in Volcanic Impacted Area and its Impact to Vegetations	Industrial Technology Development Institute (ITDI)
76	Project 3. Household and Community Based Filters for Metals in Water	Industrial Technology Development Institute (ITDI)
77	Support to the Rehabilitation of Boracay Island through the Upgrading of Material Recovery Facilities (MRFS)	DOST Region VI
	<i>Natural Dyes and Colorants R&D Program</i>	
78	Project 2. Development of Natural Colorants for Cosmetics	Industrial Technology Development Institute (ITDI)
79	Project 3. Extraction, Characterization, and Application of Natural Colorants in Nutritional Food Products	Food and Nutrition Research Institute (FNRI)
80	Project 4. Natural Food Colors from Local Sources as Food Additive	Industrial Technology Development Institute (ITDI)
81	Fire Check: Urban Fire Hazard Mapping and Fire Spread Modelling	UP Cebu
82	Specific Earthquake Ground-Motion to Help Enhance the Seismic Resiliency of Residential and Medium-to-High Rise Buildings in Metro Cebu and Metro Davao	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
83	Development of Earthquake Intensity Monitoring System	Mapua Institute of Technology (MIT)
84	Development of a Low-Energy Ion Source for the Synthesis of Diamond-Like Carbon Films	UP Diliman
85	Mobile Application Venture Capital Competition	DOST Region VII
86	Financial Assistance for the Conduct Of 44th FNRI Seminar Series	Food and Nutrition Research Institute (FNRI)

	Project Title	Implementing Agency
87	Extraction of Radionuclides, Rare Earths and other Valuable Industrial Elements from Phosphogypsum Tailings	Philippine Nuclear Research Institute (PNRI)
88	Recycling and Reprocessing of Siltation Sediments from Selected Nickel Laterite Mining Areas in the Philippines as Raw Materials for the Synthesis of Iron- Based Novel Adsorbents	Central Mindanao University
89	Comparison of Different Enzyme Preparations for Productions of Oligofructose and Inulin from Sugarcane Juice	Cavite State University
90	Recycling of Silt and Spent Residue from Reprocessing as Raw Materials for Geopolymer	De La Salle University
91	Design and Development of UP Bike Share System	UP Diliman
92	Development of Information Gathering and Utilization Systems using Small Unmanned Airborne Vehicles (UAVs) for Disaster Risk Assessment, Monitoring and Response	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
93	Fabrication of Highly C- Axis Oriented YBCO Superconducting Thin Films by Sedimentation Deposition	UP Diliman
	<i>μC-IC: Design of Microcontroller Integrated with Energy Harvesting and Power Management</i>	
94	Project 1. Development of Microprocessor for Wireless Sensor Network Applications	Mindanao State University - Iligan Institute of Technology (MSU-IIT)
95	Project 2. Power Management Unit Using Low Drop-Out Regulator and Switched Capacitor DC-DC Converters	Mindanao State University - Iligan Institute of Technology (MSU-IIT)
96	Project 3. Design of Indoor Light Energy Harvesting for Wireless Sensor Network Applications	Mindanao State University- Iligan Institute of Technology (MSU-IIT)
97	Up-Scaled Solution-Phase Synthesis of Metal Nanowires and its Application in Transparent Metal Nanowire Touch Panel	UP Diliman
	<i>Geo-SAFER Mindanao: Geo-informatics for the Systematic Assessment of Flood Effects and Risks for a Resilient Mindanao</i>	
98	Project 1. Geo-Safer Zambasulta: Systematic Assessment of Flood Effects and Risks in the Zamboanga Peninsula, Mindanao Philippines	Ateneo De Zamboanga University
99	Project 2. Geo-Safer Northern Mindanao/Cotabato: Systematic Assessment of Flood Effects and Risks in Northern Mindanao ad Cotabato, Philippines	Central Mindanao University
100	Project 3. Geo-Safer Agusan: Systematic Assessment of Flood Effects and Risks in the Agusan River Basin, Caraga Region, Mindanao, Philippines	Caraga State University
101	Project 4. Geo-Safer Western Mindanao: Systematic Assessment of Flood Effects and Risks in the Western Mindanao, Mindanao Philippines	Mindanao State University - Iligan Institute of Technology (MSU-IIT)
102	Project 5. Geo-Safer Southeastern Mindanao: Systematic Assessment of Flood Effects and Risks in the Southeastern Mindanao, Philippines	UP Mindanao
103	Support to Regional Consortia	DOST - NCR
104	Recovery of Nanominerals from Silt for Various Ceramic Applications	Mindanao State University - Iligan Institute of Technology (MSU-IIT)
105	Polyhydroxyalkanoate (PHA) Production from Agricultural Residues	UP Los Baños
106	Development of Freeze-Dried Local Alternative Flavors for Ice Cream	Benguet State University

	Project Title	Implementing Agency
	<i>Assessment of Metal Content in Agricultural Products and Its Environment in Volcanic Impacted Areas</i>	
107	Project 1. Onelab Capability Assurance System for Metal Content Assessment in Agricultural Produce Water and Environmental Samples	Industrial Technology Development Institute (ITDI)
108	Utilization of Nickel Laterite Ore Rock (Low Grade) for Various Application: Acid Mine Drainage Treatment and Carbon Sequestration	De La Salle University (DLSU)
109	RCUK: Water - Energy - Nutrient Nexus in the Cities of the Future	De La Salle University
110	Development of Groundwater Resource Management Plan and Monitoring System for Zamboanga City and its Surrounding Areas	Ateneo de Manila University (ADMU)
111	Electrochemical and Quantum Mechanical Investigation of Various Small Molecule Organic Compounds as Corrosion Inhibitors in Mild Steel	De La Salle University (DLSU)
112	Establishment of the Technology Management System of the University of the Philippines Cebu	UP Cebu
113	Higher Education Institution Readiness for Innovation & Technopreneurship (HEIRIT) Development Program for Starting TBI's	UP Diliman
114	Enhancement of K-12 Grading System towards Intelligent Computing Environment through Wela School Innovation (Responsive Monitoring System for Educational Institution)	Wela Online Corp
115	Support for Information Dissemination Program	Multi Agency
116	Detection of Adulteration in Philippine Honey using Carbon-13 Isotope Analysis	Philippine Nuclear Research Institute (PNRI)
117	Development, Standardization, and Characterization Studies of Tupig, Bukayo, and Bibingka - Region 1 Native Delicacies	Pangasinan State University
118	Pilot-Scale Production of Spray-Dried Powder Dextran and High Fructose Syrup using Whole Cell (<i>Leuconostoc mesenteroides</i> isolates) ITDI Fermentation Technology	Industrial Technology Development Institute
119	Impact Assessment of Department of Science and Technology's Small Enterprise Technology Upgrading Program	Development Academy of the Philippines
120	Facility for Nanotechnology R&D in Central Luzon University	Central Luzon University
121	Development of Food Reference Materials for Nutrition Labeling for Use of Local Testing Laboratories Phase 2: Establishment of ISO 17034:2016 Quality Management System and Development of Fish Reference Materials for Proximate, Minerals and Cholesterol Analyses	Food and Nutrition Research Institute
122	Field-Testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions (Caraga)	UP Diliman
123	Field-Testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions (Bicol)	UP Diliman
124	Field-Testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions (Compostela Valley)	UP Diliman
125	Titan: Vision -Based Traffic Information & Analysis	De La Salle University (DLSU)
	<i>Geospatial Monitoring System for High Value Projects</i>	

	Project Title	Implementing Agency
126	Project 1. Geospatial Monitoring System for National Greening Program (NGP)	UP Diliman
127	Project 2. Geospatial Monitoring System for National and Communal Irrigation Systems (NCIS)	UP Diliman
128	Development of Error Resilient Joint Source-Channel Wireless Video Transmission System for High Efficiency Video Coding (HEVC) Standards Implemented in Field Programmable Gate Array (FPGA)	University of Santo Tomas
129	BRAVE: Bomb Removal Automated Vehicle	De La Salle University
130	Pilot Implementation of ITDI's Pre-Commercialization Tools/ Strategies for Effective Transfer and Commercialization of Generated Technologies and Intellectual Properties	Industrial Technology Development Institute
131	Charm - Charging in Minutes Spinoff Project - Technology Development for Manufacturability and Open Water Market Validation	UP Diliman
132	Product and Market Validation for A Semi-Automated Reef Fish Census System	UP Diliman
133	Catch-All: Vision-Based Artificial Intelligence Analytics Software Development for Traffic and Transport Applications	De La Salle University
134	Technology and Market Validation of Universal Structural Health Evaluation and Recording (USHER) System	Mapua Institute of Technology
135	Integration of Data Science and Scaling Up of Payruler, A Comprehensive Human Resource Management System (HRMS)	Genii Hut Technologies Corporation
DOST-GIA Projects		
<i>Electronics Product Development Center (EPDC) as Platform for Innovation and Collaboration (EPIC) Program</i>		
136	Project 1. Electronics Product Development Center Upgrade and Operation	Electronic Industries Association of the Philippines, Inc. (EIAPI)
137	Project 2. Electronics Product Inclusive Innovation Center	Advanced Science and Technology Institute (ASTI)
<i>MECO-TECO: Improvement of Forecast Capability on Weather, Marine Meteorology and Short Range Climate</i>		
138	Project 1. Typhoon Formation, Structure and Intensity Change in Western NP and Wave Observation and Modeling	Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA)
139	Project 2. Heavy Rain Monitoring and Forecasting in the Mountainous Area and Early Warning Landslides	UP Los Baños
140	Project 3. Observations and Dynamical Down-scaling of Seasonal and Sub-seasonal Forecast	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
141	Effectiveness of 21 st Century Learning Environment Model as a Support System to Teaching and Learning of Science and Mathematics	DOST Region IV-A
142	Enhancing Onelab for Global Competitiveness	DOST Regional Offices
143	One Expert (1E): A One-Stop Portal for Science and Technology Consultancy and Technical Services	Technology Application and Promotion Institute (TAPI);

	Project Title	Implementing Agency
		National Research Council of the Philippines (NRCP); Science and Technology Information Institute (STII); DOST Region VI; DOST Region CAR; DOST Region NCR
144	Optimization of the Operational Capabilities of Hydromet Sensors in Line with International Standards (WMO Standards) for Effective Weather, Flood Warning (CBFEWS) and Application to Research	Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA)
145	Development of novel materials as emitters and/or detectors for (sub)-terahertz time-domain spectroscopy carrier dynamic studies	UP Los Baños
146	NovaSAR Imaging Capacity Share Programme Synthetic Aperture Radar (SAR) and Automatic Identification System (AIS) for Innovative Terrestrial Monitoring and Maritime Surveillance	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
147	Environmental, Health and Safety Research in the Risk Assessment of Nanomaterials (Phase 1) Establishment of a Nano Safety Program in the Philippine	Industrial Technology Development Institute (ITDI)
148	Utilization of Spent Tea Leaves and Tobacco Dust as Additives for Plywood adhesive	Forest Products Research and Development Institute (FPRDI)
149	Technology Innovation for Commercialization and Other Technology Transfer Program	Technology Application and Promotion Institute (TAPI)/DOST - Research and Development Institutes (RDIs)
150	AGT UP End of Project	Metals Industry Research and Development Institute (MIRDC)
151	The Fusion of Science and Arts: Philippine Biodiversity and Culture	National Research Council of the Philippines (NRCP)
152	DOST Technology Transfer Day	Technology Application and Promotion Institute (TAPI)
153	ITDI Participation to IFEX PHILIPPINE 2018 "The Best of the Seas"	Industrial Technology Development Institute (ITDI)
154	Processing and Utilization of Senile and Unproductive Rubberwoods (<i>Hevea brasiliensis</i>) Trees for the Production of High Value Furniture, Mouldings and Joineries	Forest Products Research and Development Institute (FPRDI)
155	Strengthening the DOST Regional Metrology Laboratory Services	DOST – Regional Offices (ROs)
156	Development of a Philippine Indigenous Instrument Sound Database	Advanced Science and Technology Institute (ASTI)/UP Diliman
157	Optimization of the Operational Capabilities of Hydromet Sensors in line with International Standards (WMO Standard)	DOST Regional Offices
158	Investigation and Numerical Modeling of Philippine Tsunamis based on Historical, Geomorphological and Geological Evidence of Past Earthquakes	UP Diliman/Philippine Institute of Volcanology and Seismology (PHIVOLCS)
159	Newton Fund Scholarship	Science Education Institute (SEI)
160	A Dispersive Long-Wave Model for Predicting Coastal Flooding Due to Storm and Surface Waves in Manila Bay	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

	Project Title	Implementing Agency
161	DOST-Phil-LIDAR 1 Program and DILG LiDAR-GIS and Flood Disaster Management Training for Local Government Units	UP Diliman
162	Support to the Commercialization of 500 DOST-Generated Technologies (Phase 2): Strengthening the Intellectual Property and Technology Portfolio of the DOST	Technology Application Promotion Institute (TAPI)
163	Geospatial Information Management and Analysis for Risk Assessment and Hazards (Georisk PH)	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
164	Tracing the Pathways of Mercury Concentration in Mined-Out Area	Philippine Nuclear Research Institute (PNRI)
165	Development of a Future Earth Philippines Program (FEPP) Phase I	National Research Council of the Philippines (NRCP)
	<i>IntElect: Intelligent Electric Transportation Network</i>	
166	Project 3. ETRIKE - Deployment and Utilization Study	Cagayan State University (CSU)
167	Upgrading and Enhancing the Capacity of the Packaging Technology Division in Packaging Research and Innovation	Industrial Technology Development Institute (ITDI)
168	Genomics Junior Camp	Philippine Genome Center (PGC)
169	Philippine Participation in the China International Import Export (CITE)	Technology Application Promotion Institute (TAPI)
170	Enhancing the Interest of Students from Selected Geographically Isolated Depressed Areas (GIDA)	Philippine Foundation for Science and Technology (PFST)
	<i>Development of Philippine Scientific Earth Observation Microsatellite (PHL-MICROSAT)</i>	
171	Project 1. Microsatellite BUS Development for Philippine Microsat	UP Diliman
172	Project 5. Remote Sensing Product Development for Philippines Microsatellite	UP Diliman
	<i>STAMINA4Space</i>	
173	Project 3. Space Science and Technology Proliferation through University Partnership (STEP-UP)	UP Diliman
174	Providing High Resolution 5km Climate Change Projections in the Philippines Using Weather Research and Forecasting (WRF) Model	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

**List of Monitored Projects
(January – September 2018)**

	Project Title	Implementing Agency
1	ADMATEL Expansion and Business Continuity	Industrial Technology Development Institute (ITDI)
2	Application of Predictive Data Analytics on Multivariate Analysis of Methamphetamine-HCl Chemical Fingerprints	Industrial Technology Development Institute (ITDI)
3	Fabrication of Metal Oxide Thin Films for Optical Coatings with Plasma Assisted Deposition Using a Plasma Enhanced Chemical Vapor Deposition (PECVD) System	UP Diliman
4	Embedding of Functional Materials onto Paper for Antimicrobial and Electromagnetic Shielding Applications	UP Los Baños
5	Pulp-to-Print: Development of Print-Ready Cellulose Composites from Paper Mulberry	UP Diliman
<i>Smart Plant Production in Controlled Environments (SPICE)</i>		
6	Project 1. Standalone Urban Farm	UP Diliman
7	Project 2. Sensor-based Monitoring and Analytics for Smart Hydroponics (SMASH)	UP Diliman
8	Project 3. Establishment of Soilless Culture Technology for Urban Food Production	UP Diliman
9	Project 4. Ex-Situ Conservation through Micropropagation Cryopreservation of Native Plant Species	UP Diliman
10	Generalized Automated Microfluidics and Micro-actuator Assembly (GAMMA)	UP Diliman
11	Development of a Passive Neutron Spectroscopy System	Philippine Nuclear Research Institute (PNRI)
<i>EPDC as Platform for Innovation and Collaboration (EPIC)</i>		
12	Project 2. Electronics Product Inclusive Innovation Center (EPIIC)	Advanced Science and Technology Institute (ASTI)
13	Flood Risk Assessment for Mitigation and Effective Response (FRAMER) of Riverine Towns in Selected River Basins in Cavite, Batangas, and Quezon Provinces using Most Recent LiDAR DEM	Mapua Institute of Technology
14	Metro Manila Transportation Network: Big Data Analytics and Applications (MMTN:BDAA)	De La Salle University
15	Prototype Development of Severe Weather Amphibious Navigator Using Local Abaca Composites	Wesleyan University of the Philippines
16	Development of a hybrid trimaran fast craft passenger cargo vessel using multi engine and alternative energy source from ocean waves	Aklan State University (ASU)
17	Performance Testing and Evaluation of Prototype Trainset	Metals Industry Research and Development Center (MIRDC)
18	Formulation of a Settlements Development Model in New Growth Areas in the Philippines	UP Diliman

	Project Title	Implementing Agency
19	Investigation and numerical modeling of Philippine tsunamis based on historical, geomorphological and geological evidence of past earthquakes	UP Diliman
	<i>Analyzing CORDEX - SEA Regional Climate Simulations for Improved Climate Information over the Philippines: SST Influence, Variability and Extremes, Tropical Cyclone Activity</i>	
20	Analysis of the Influence of Sea Surface Temperature Representation in Downscaled Regional Climate Using the SEACLID/CORDEX – Southeast Asia Simulations	Manila Observatory
21	Multi-temporal and Extremes Analysis of Modeled Climatology over the Philippines in the SEA CORDEX Domain	Manila Observatory
22	Detecting Tropical Cyclones in a Downscaled Regional Climate Model for CORDEX – SEA	Manila Observatory
23	Development of Earthquake Intensity Monitoring System	Mapua Institute of Technology
24	Development and Installation of Micro-grid in a Remote Community	Mindanao State University - Iligan Institute of Technology
25	Sustainable Wastewater Treatment Systems with Nutrient (SWAN) Recovery	De La Salle University
26	Development of Titanium Dioxide Films and its Derivatives for Semiconductor Mediated Photocatalytic Treatment of Water	UP Diliman
27	Multi-platform and Cross-Sensor Water Quality Monitoring	UP Diliman
28	Electromagnetic Radar Technique for Water Detection	Mindanao State University - Iligan Institute of Technology
29	Master of Research and Development Management	UP Open University
30	Enhancing the Applicability of Vertical Helophyte Filter Systems for Small Communities, Local MSMEs and Public Entity	Department of Science and Technology Region XI
31	Support to the Rehabilitation of Boracay Island Through the Upgrading of Material Recovery Facilities (MRFs) - Phase I	Department of Science and Technology Region VI
32	Technical and Economic Feasibility Study to Determine the Most Suitable Ironmaking Technology for Value-Adding of Philippine Magnetite Resources	Metals Industry Research and Development Center (MIRDC)
33	Geopolymerization and its Potential Application in Artisanal Gold Mine Tailings Stabilization	Central Mindanao University (CMU)
34	Establishment of the PTRI “Perfect Fit” Textile Product Development Center	Philippine Textile Research Institute (PTRI)
35	Establishment of Regional Yarn Production and Innovation Center	Philippine Textile Research Institute (PTRI)
36	Tabang MARAWI (Malnutrition Alleviation and Health Restoration through After-War Interventions)	Food and Nutrition Research Institute (FNRI)
37	Portable Potable Water Equipment During Emergencies (PWEDE)	University of the Philippines-Diliman

	Project Title	Implementing Agency
38	Enhancement, Field Validation and Market Readiness Detection of DNA-based Nanobiosensor for the E. coli, E. coli 0157:H7 and Salmonella enterica in Food, Feed and Farm Produce	National Institute of Molecular Biology and Biotechnology, UP Los Baños
39	Enhancement of Prototype and Assessment of Product Marketability of Machibox (a robotics kit for STEM-based learning)	MachiBox Inc.
40	Prototype Development of Semi-Automated Foam Shredder Equipment (TECHNICOM)	Holy Angel University
41	Development of Data Analytics-Ready Info Unified System (DARIUS) for Agile Delivery of Regional Services	DOST CALABARZON
42	PHL-MICROSAT Project 5. Remote Sensing Product Development	UP Diliman
43	Industry Defined 2D Basic Animation Course	Toon City Academy
44	Development of a Low-Energy Ion Source System for the Synthesis of Diamond-like Carbon Films	UP Diliman
45	Angular Goos-Hänchen Shift: An Optical Phenomena for Ultra Thin Film Thickness Measurement	UP Diliman
	<i>Hard Coating Thin Film Synthesis Using DC and RF Magnetron Sputtering via Gaseous Discharges</i>	
46	Project 1: Development of Direct Current (DC) Magnetron Plasma System for Ti-Al-C Thin Film Synthesis	Ateneo De Manila University (ADMU)
47	Ultrafast MBE-grown Terahertz Photoconductive Antenna Devices	UP Diliman
48	Sonochemical Synthesis of Cobalt Oxide and Copper Oxide Nanostructures as Electrodes in Photoelectrochemical Water-Splitting Applications	Mapua Institute of Technology
49	Uncooled Carbon Nanotube Microbolometers	UP Baguio
50	Ionic Liquid Assisted Electrospinning of Conductive Nanofibers as Solid Polymer Electrolyte/ Separator Membrane of Solid State Supercapacitor	UP Diliman
51	Up-Scaled Solution-Phase Synthesis of Metal Nanowires and its Application in Transparent Metal Nanowire Touch Panel	UP Diliman
52	Green Synthesis of Carbon Quantum Dots from Biowaste for Biomedical and Industrial Applications	Materials Science Division, ITDI
53	Development of a Raman Microscopy and Spectroscopy (RMS) Setup	UP National Institute of Physics
54	Optical trap-mediated interaction between cancer cells and elucidated compounds from vegetable extracts in PEMF	De La Salle University
55	Binary Gels - Rheology of Two-component Biopolymer Hydrogels Investigated Using Optical Tweezers and Non-Linear Rheometry	University of San Carlos
	<i>µC-IC: Design of Microcontroller Integrated with Energy Harvesting and Power Management</i>	
56	Development of Microprocessor for Wireless Sensor Network Application	Mindanao State University – Iligan Institute of Technology (MSU-IIT)

	Project Title	Implementing Agency
57	Indoor Light Energy Harvesting for Wireless Sensor Network Applications	Mindanao State University – Iligan Institute of Technology (MSU-IIT)
58	Power Management Unit using Low Drop-out Regulator and Switched Capacitor DC-DC Converters	Mindanao State University – Iligan Institute of Technology (MSU-IIT)
59	One Click: Android/Web-based Student Response and Understanding Visualizer	Mapua Institute of Technology
60	Remote Sensing and Data Science: DATOS Helpdesk	Advanced Science and Technology Institute (ASTI)
	<i>Integrated Assessment and Modelling of Blue Carbon Ecosystems for Conservation and Adaptive Management (IAMBlueCECAM)</i>	
61	Project 1. Mangrove Remote Sensing Using LiDAR, Multispectral, and Hyperspectral Data (MaRS)	UP Diliman
62	Project 2. LiDAR, Hyperspectral, and Sonar Remote Sensing of Seagrass Meadows (SeaRS)	UP Diliman
63	Project 3. Geosimulation of Mangroves and Seagrass Vegetation Dynamics (GeoSiMAS)	UP Diliman
64	Project 4. Hydrodynamic Modelling for the Assessment of Protective Services of Mangroves and Seagrass (HMAPS-MS)	UP Diliman
65	Project 5. Modelling, Analysis and Simulation of Blue Carbon Cycle and Budgets (BlueCyMAS)	UP Diliman
66	Project 6. Suitability Models for Guiding Mangrove RePlanting Efforts (SuitMaPs)	UP Diliman
67	Project 7. Economic Valuation of Generated Blue Carbon Ecosystem Services (EconValBlue)	UP Diliman
68	Project 8. Multi-agent Systems for Simulating Policy Scenarios on Blue Carbon Ecosystems (BlueMASSPolis)	UP Diliman
69	Project 9. WebGIS for Mapping, Supporting Decision-making, and Promoting Ecological Services of Blue Carbon Ecosystems (BlueWebMapS)	UP Diliman
70	Project 10. Geospatial Decision Support Systems and Capacity Building on Geomatics for Mangrove Seagrass Conservations (CapGeoDSS)	UP Diliman
	<i>GeoSafer Mindanao Program (ZAMBASULTA, Northern Mindanao/ Cotabato, Agusan, Western Mindanao and Southeastern Mindanao)</i>	
71	Project 1: Geo-SAFER Zamboanga Peninsula – Systematic Assessment of Flood Effects and Risks in Zamboanga Peninsula, Mindanao, Philippines	Ateneo de Zamboanga University
72	Project 2: Geo-SAFER Northern Mindanao/ Cotabato – Systematic Assessment of Flood Effects and Risks in Northern Mindanao and Cotabato, Philippines	Central Mindanao University
73	Project 3: Geo-SAFER Agusan – Systematic Assessment of Flood Effects and Risks in the Agusan River Basin, Caraga Region, Mindanao, Philippines	Caraga State University
74	Project 4: Geo-SAFER: Western Mindanao - Systematic Assessment of Flood Effects and Risks in Western Mindanao	Mindanao State University - Iligan Institute of Technology

	Project Title	Implementing Agency
75	Project 5: Geo-SAFER: Southeastern Mindanao - Systematic Assessment of Flood Effects and Risks in Southeastern Mindanao	UP Mindanao
76	Design and Development of UP Bike Share System	UP Diliman
77	A Vision-Based Vehicle Counter for Traffic Monitoring (VEMON)	De La Salle University
78	Engineering the Public Utility Vehicles (PUVs) Using an OEM Vehicle Platform	UP Diliman
79	Development of a Customized Local Traffic Simulator (LocalSim Phase 2)	UP Diliman
80	Recycling and Recyclability Index for End-of-Life Jeeps	University of Asia and the Pacific (UA&P)
81	Development of a Local Automatic Identification System (AIS) for Ship Tracking and Monitoring	De La Salle University
82	Cyber-Physical Transportation System	UP Diliman
83	Testing for Standardization and Optimization of five Coach Hybrid Road Train Phase III	Metals Industry Research and Development Center (MIRDC)
84	System Expansion of the 120-Passenger per Coach Capacity Automated Guide-way Transit System	Metals Industry Research and Development Center (MIRDC)
85	e-Asia: Development of Information Gathering and Utilization Systems using small Unmanned Airborne Vehicles (UAVs) for Disaster Risk Assessment, Monitoring and Response	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
	<i>Development of a fixed wing short take-off and landing (STOL) unmanned aerial vehicle (UAV) for disaster risk reduction and management</i>	
86	Design and fabrication of an airframe for a medium-range, short take-off and landing UAV	FEATI University
87	Development of a Flight Controller for a Modular UAV System	De La Salle University
88	Cooperative UAV-UGV Missions and Applications with Custom Communications and Imaging Capabilities	Ateneo De Manila University
89	Fire Check: Urban Fire Hazard Mapping and Fire Spread Modeling	UP Cebu
90	The Use of Radon Technique in Mapping Geological Faults in the Philippines	Philippine Nuclear Research Institute (PNRI)
91	Mapping of offshore active faults for resilient coasts	UP Diliman
92	Automated Real-Time Monitoring System (ARMS) for Magat Dam	Mapua Institute of Technology
93	Development of Groundwater Resource Management Plan and Monitoring System for Zamboanga City and its Surrounding Areas	Ateneo de Manila University
94	Enhancing the Hydro-meteorological Hazards Monitoring and Risk Assessment Capabilities of PAGASA through the Adoption and integration of NOAA Operating Systems	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

	Project Title	Implementing Agency
95	Specific Earthquake Ground-Motion to help enhance the seismic resiliency of residential and medium-to-high rise buildings in Metro Cebu and Metro Davao	Philippine Institute of Volcanology and Seismology (PHIVOLCS)
96	Automated Real-time Monitoring System for Ambuklao, Binga and San Roque Dams	Mapua Institute of Technology
97	Development of HFDR Ship Tracking Algorithm Software for Maritime Surveillance, Search and Rescue	Mapua University
98	Regional Disaster Science and Management S&T Capacity Development (Phase III)	Mariano Marcos State University
	<i>Improvement of Forecast Capability on Weather, Marine Meteorology and Short Range Climate</i>	
99	Project 1: Typhoon Formation, Structure and Intensity Change in Western NP and Wave Observation and Modeling	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
100	Project 2: Heavy Rain Monitoring and Forecasting in the Mountainous Area and Early Warning Landslides	UP Los Baños and Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
101	Project 3: Observations and Dynamical Downscaling of Seasonal and Sub-seasonal Forecasts	Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
	<i>Integrative Studies on the geodynamics of the Philippine and Taiwan ARC Systems</i>	
102	Project 1. Investigating the Tectonic Evolution of Northern and Central Philippine Arcs through Geochemistry and Geophysics	UP Diliman
103	Project 2: Coastal Tectonics of Central Philippine Islands and Its Implications for Seismic Hazards	UP Diliman
104	Project 3: Geophysical Characterization of the Western Philippine Subduction Zones	UP Diliman
105	Climate Change Adaptation and Disaster Resilience Cluster PH-US Joint Cooperation	PCIEERD
106	Setting Up a Concrete Petrography Laboratory for Quality Control of Construction Projects	UP Diliman
107	Development of a Functional and Durable Pervious Concrete Pavement for Local Roads and Parking Lots	Central Mindanao University
108	Upgrading of the PNRI Nuclear Training Center Laboratory Facility	Philippine Nuclear Research Institute (PNRI)
109	UP Cebu Cybersecurity Research and Extension Center	UP Cebu
	<i>Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions</i>	
110	Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions (CARAGA)	UP Diliman
111	Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions (Compostela Valley)	UP Diliman
112	Synergistic effect of Forward Osmosis and Capacitive De-ionization for Water Purification and Recovery	Malayan Colleges Laguna

	Project Title	Implementing Agency
	<i>Synergistic Capacity Advancement for the Management of Laguna Lake: SCALE</i>	
113	Antibiotics, Endocrine Disruptors and Heavy Metals in Laguna Lake Water: Impacts on Food and Water Security	UP Diliman
114	Microbial Source Tracking in Selected Tributaries of Laguna de Bay	Natural Sciences Research Institute
115	TRACe Fish – Trace oRganics and metAls in Commodity Fish: Method optimization, extent of contamination and health risk due to fish intake	UP Diliman
	<i>Molecular and Culture-based Characterization of Bacterial Community from Manleluag Alkaline Spring in Pangasinan - EIDR</i>	
116	Isolation and screening of alkaliphilic bacteria from Manleluag alkaline spring producing an industrially important enzyme	UP Los Banos
117	Molecular characterization of bacterial community from Manleluag alkaline spring through next-generation sequencing of 16S rDNA	UP Los Banos
	<i>Assessment of Metal Content in Agricultural Products and Its Environment in Volcanic Impacted Areas</i>	
118	Project 1. OneLab Capability Assurance System for Metal Content Assessment in Agricultural Produce, Water and Environmental Samples	Industrial Development Institute (ITDI)
119	Project 2. Metal Content of Water Supplies in Volcanic Impacted Area and its Impact to Vegetation	Industrial Development Institute (ITDI)
120	Project 3. Household and Community Based Filters for Metals in Water	Industrial Development Institute (ITDI)
121	Water - Energy - Nutrient Nexus in the Cities of the Future	De La Salle University
122	Forward Osmosis System using locally-made membrane from Nata-de-coco for the production of rehydration water and application for desalination	Malayan Colleges Laguna
123	Optimization of Ready-to-Drink Sweet Potato Leaf Extract (SPLE)-Tropical Fruit Juice Blends through the UP-DOST Food Innovation Facility	UP Diliman
124	Establishment of Shelf-Life of Vacuum Fried Okra developed by ITDI Main FIC	Industrial Technology Development Institute (ITDI)
125	Package Development of Bakery Product and Field Testing of Ready-to-Eat (RTE) Smoked Fish Rice Meal and Sweet Potato as Disaster/Relief Foods - Phase 2	Industrial Technology Development Institute (ITDI)
	<i>Product Development and Utilization Program of Abalone in MIMAROPA</i>	
126	Development of bottom housing system for abalone farming	Western Philippines University
127	Development of Food and Non-Food Products from Abalone	Marinduque State College and Western Philippines University
128	Performance Evaluation of Dipstick Assay for the Detection of Salmonellae in Selected Food Matrices	National Institute of Molecular Biology and Biotechnology, UP Los Baños
129	Upgrading and Enhancing the Capacity of the Packaging Technology Division in Packaging Research and Innovation	Industrial Technology Development Institute (ITDI)

	Project Title	Implementing Agency
130	Development of Ready-to-Eat Corn Grit Meals	UP Diliman
131	Development of Gourmet Salt Products and Micro-sized Salt in Laboratory Scale	Industrial Technology Development Institute (ITDI)
132	Pilot-Scale Production of Spray-Dried Powder Dextran and High Fructose Syrup using Whole Cell (<i>Leuconostoc mesenteroides</i> isolates) ITDI Fermentation Technology	Industrial Technology Development Institute (ITDI)
133	Development of an Effective Distribution System for RTE Retort Foods (Chicken Arroz Caldo and Smoked Fish Rice Meal) to Mitigate the Magnitude of Distress for Calamity Survivors and Providers of Services	Industrial Technology Development Institute (ITDI)
134	Enhancing OneLab for Global Competitiveness	DOST Regional Office No. 9 Note: 16 ROs and 7 RDIs
<i>I-SALT: Improving Productivity and Efficiency of Local Salt Producers towards a Self-Reliant Philippines in 2020</i>		
135	Project 1. Design, Prototyping of Salt Processing Equipment (Washer, Dryer, Iodizer, Crystallizing Pan, Furnace, Concentrator (Ion exchange membrane)	Industrial Technology Development Institute (ITDI)
136	Development of An Automated Multi-Commodity Heat Pump Dryer	Adventist University of the Philippines (AUP)
137	Strengthening of DOST Regional Metrology Laboratory Services - Phase II	DOST Regions from CAR to CARAGA
138	Characterization and Separation of Heavy Minerals in the Alluvial and Beach Sands in San Vicente, Northwestern Palawan	Philippine Nuclear Research Institute (PNRI)
139	Establishment of Common Service Facility (CSF) for Artisanal Small-Scale Gold Mining in Northern Mindanao	Mindanao State University – Iligan Institute of Technology (MSU-IIT)
<i>Enhancement of the Competence and Capability of the National Metrology Laboratory of the Philippines Metrology</i>		
140	Project 1. Chemical Metrology for Organic Contaminants in Foods and Water	Industrial Technology Development Institute (ITDI)
141	Project 2. Chemical Metrology for Inorganic Toxic Elements in Food and Water	Industrial Technology Development Institute (ITDI)
142	Project 3. Biological Metrology for Microorganisms in Food	Industrial Technology Development Institute (ITDI)
143	Project 4. Strengthening the Physical Metrology Capabilities of the National Metrology Laboratory	Industrial Technology Development Institute (ITDI)
144	Modular Innovation Center for Oils, Blends, and Sauces	Industrial Technology Development Institute (ITDI)
<i>National R&D Program for Natural Rubber Processing and Rubber Products Manufacturing</i>		
145	Project 6. Processing and Utilization of Senile and Unproductive Rubberwood (<i>Hevea brasiliensis</i>) Trees for High Value Furniture, Mouldings and Joinery Products	Forest Products Research and Development Institute (FPRDI)
<i>Natural Dyes and Colorants R&D Program</i>		
146	Project 1. Commercial Scale Verification of Natural Dyes for Textiles	Philippine Textile Research Institute (PTRI)

	Project Title	Implementing Agency
147	Project 2. Development of Natural Colorants for Cosmetics	Industrial Technology Development Institute (ITDI)
148	Project 3. Extraction, Characterization, and Application of Natural Colorants in Nutritional Food Products	Food and Nutrition Research Institute (FNRI)
149	Project 4. Natural Food Colors from Local Source as Food Additive	Industrial Technology Development Institute (ITDI)
150	Standards & Testing Automated Modular Platform (STAMP)	UP Diliman
	<i>Processing of Bio-based Polyols and Polyurethanes for Industrial Applications Program</i>	
151	Project 1. Production of Bio-based Polyols from Lignocellulosic Biomass	Mindanao State University – Iligan Institute of Technology (MSU-IIT)
152	Project 2. Development of Polyurethane-based Packing Materials and Anti-corrosive Coatings from Vegetable Oil	Mindanao State University – Iligan Institute of Technology (MSU-IIT)
153	Polyhydroxyalkanoate (PHA) Production from Agricultural Residues	UP Los Baños
154	Comparison of Different Enzyme Preparations for the Production of Oligofructose and Inulin from Sugarcane Juice	Cavite State University
155	Design and Development of a PLC-Based High Capacity Tissue Culture Growth Chamber	Cavite State University
156	Quality Assurance of Lambanog and Nipanog for Consumer Safety and Sustainable Industry	UP Diliman
157	Development of a Shelf-Stable Fermented Heirloom Rice "Binubudan"	Benguet State University
158	Development of Freeze-Dried Local Alternative Flavors for Ice Cream	Benguet State University
159	Jolt: A Stackable Multi-Functional Battery Energy Storage for Household Solar and Emergency Applications	UP Diliman
160	Enhancement of Prototype and Market Readiness of R-TAP (an advanced pressure management system for water utilities)	Hiraya Technology Solutions, Inc.
161	Prototype Development and Field Testing of Mosquito-Repellent Textile	Philippine Textile Research Institute (PTRI)
162	Geophysical Exploration Instruments with Micro-seismic Imaging and Tomography for Energy Exploration in the Philippines	Tekton Geometrix, Inc.
163	Technology Business Incubator (TBI) at DLSU-STC Campus	De La Salle University – STC Campus
164	InteliSENSE: A Progress Monitoring Tool for Children with Special Needs	De La Salle University
165	Pilot Implementation of ITDI's Pre-Commercialization Tools/Strategies for Effective Transfer and Commercialization of Generated Technologies and Intellectual Properties	Industrial Technology Development Institute (ITDI)
166	Smart Vision: AI-Guided Vision System for the Blind	Grayscale Marketing Consultancy

	Project Title	Implementing Agency
167	One Expert (1E): A One-Stop Portal for Science and Technology Consultancy and Technical Services	DOST Regional Offices; Technology Application Promotion Institute (TAPI); National Research Council of the Philippines (NRCP)
168	Upgrading the PNRI Neutron Laboratory for Neutron Physics and Dosimetry Research	Philippine Nuclear Research Institute (PNRI)
169	PUP College of Engineering Sensors and Mechatronics Laboratory	Polytechnic University of the Philippines (PUP)
170	Strengthening SLSU's Capability in GIS Technologies in Support of Southern Leyte's Competitiveness and Development	Southern Luzon State University (SLSU)
	<i>Development of Philippine Scientific Earth Observation Microsatellite (PHL-MICROSAT)</i>	
171	Project 1. Microsatellite BUS Development for Philippine Microsat	UP Diliman
172	Establishment of Renewable Energy Laboratory and Demonstration Park	Isabela State University (ISU)
173	Development of Future Building Materials and Structures (FBMS) Laboratory	Northwest Samar State University (NwSSU)
174	Establishment of CvSU SiMM (Simulation, Modeling and Measurement) Laboratory	Cavite State University
175	Enhancing the Natural Science Research Center Laboratories of Central Mindanao University	Central Mindanao University (CMU)
176	PCIEERD NSRI Research Grant	UP Diliman
177	Establishment of the USJ-R Center for Energy Harvesting Materials Research	University of San Jose Recoletos (USJ-R)
178	Learning at Scale Vol. I Data Science Track	MOOCSX PH
179	Capability Building on Energy Efficiency and Conservation (EE&C) for State Universities and Colleges (SUCs) in Six (6) Regions as Demonstration Sites formerly Capability Building on Energy Efficiency and Conservation (EE&C) for State Universities and Colleges (SUCs) in Five (5) Regions as Demonstration Sites	Industrial Technology Development Institute (ITDI)
180	DOST - SEI - Newton Fund Scholarships	Science Education Institute (SEI)
181	Development of Municipal e-Governance Systems through ICT	Camarines Sur Polytechnic Colleges (CSPC)
182	Establishment of QBO Innovation Hub	Ideaspace Foundation, Inc.
183	Support to the Commercialization of 500 DOST-Generated Technologies (Phase 2): Strengthening the Intellectual Property and Technology Portfolios of the DOST	Technology Application Promotion Institute (TAPI)
184	2017-2019 DOST Technology Transfer Day (TTD)	Technology Application Promotion Institute (TAPI)
185	e-Asia JRP: Development of Functional Nanocarbon-Based Catalysts for Biomass Conversion Processes	De La Salle University
186	Development, Characterization and Performance Evaluation of Polymeric Separation Membrane for Industrial Applications using Local Materials (Phase 1)	Industrial Technology Development Institute (ITDI)

	Project Title	Implementing Agency
	<i>TiO₂ based Nanomaterials and Nanocomposites as Photoelectrocatalysts for the Removal and Sensing of Synergistic and Organic Pollutants</i>	
187	Project 1: Preparation of Imprinted poly(phenylenediamine)/poly(thiophene)-TiO ₂ Nanoparticle Functionalized Electrodes for the Photoelectrochemical Sensing of Organophosphorus Pesticides	UP Diliman
188	Project 2: Synthesis of TiO ₂ –Conducting Polymer Nanospheres for the Photocatalytic and Photoelectrocatalytic Degradation of Organic Pollutants	UP Diliman
189	Project 3: Preparation and Properties of Transition Metal- and Nitrogen-Doped Titania Photocatalysts by Hydrothermal Methods	UP Diliman
190	Production of Nanocellulose from Indigenous Natural Fibers and Agricultural Wastes	Ateneo De Manila University
191	ANEEME: Synthesizing and Sharing Animation Building Blocks for Rapid creation of 3D Motion Scenes	UP Diliman
192	Development of Interactive Software and Teaching Guides for Grades 7-10 Mathematics	Ateneo De Manila University
193	Project Tick-Tock Tech Talk	UP Diliman
194	PNRI Graduate Student Research Grant Program	Philippine Nuclear Research Institute (PNRI)
195	Detection and Identification of Legitimate Public Utility Vehicles (PUVs) Along various road netWorks (DILAW)	UP Diliman
196	Modification of Road Train Energy Storage System Using Lithium Ion Batteries	Metals Industry Research and Development Center (MIRDC)
197	Development of a Commercial Prototype Automated Guide-way Transit System in UP Diliman	Metals Industry Research and Development Center (MIRDC)
198	Development and Improvement of a Novel Rain Acoustic Sensor (former Development of a rapidly deployable novel Rain Acoustic Sensor Network)	Ateneo de Manila University
199	Regional Scales of Variability in Precipitation (RSVP)	UP Diliman
200	Utilization of Industrial By-product Currimao Steel Slag as Green Concrete - ICIEERD	Mariano Marcos State University (MMSU)
201	Development of a Compact Wastewater Treatment System Enhanced with Bio-augmentation Technology for Quick Service Restaurants (QSRs)	Industrial Development Institute (ITDI)
202	Tempospatial Distribution and Transboundary Transport of Atmospheric Fine Particles across Bashi Channel, Taiwan and South China Sea	UP Diliman
203	Field Testing of Eco-Friendly Septic System (Eco-Sep) for the Tourism Sector in Siargao Island, Surigao del Norte (Project FRESH)	DOST CARAGA
204	Project 2: Tailings - Cement Bricks Reinforced with Coco Fiber - CSU	Surigao State College of Technology-Del Carmen

	Project Title	Implementing Agency
205	Project 5: Product Development of Talisay Nut Delights	Surigao State College of Technology-Del Carmen
206	Project 6: Archimedean Screw Micro Hydropower System for Small Scale Industry Application	Surigao State College of Technology-Del Carmen
207	Radiation-induced Grafting of Non-woven Fabrics for Wastewater Treatment to Meet Class C Effluent Heavy Metal Standards	Industrial Development Institute (ITDI) and Manly Plastic Inc.,
208	Dried Cassava Grates Processing and System Optimization	Visayas State University (VSU)
209	Design and Optimization of Austenitic Manganese Steel Liner for Philippine Aggregate and Mineral Processing	Metals Industry Research and Development Center (MIRDC)
210	Exploratory Characterization of Scandium and Rare Earth Elements in Palawan, Zambales and Surigao del Sur Nickeliferous Laterite Deposits	UP Diliman
211	Design, Fabrication and Performance Evaluation of Black Sand	Isabela State University (ISU)
212	Research and Development Project to Rehabilitate and Enhance Productivity in Lahar and Ash-Laden Areas in Central Luzon	Central Luzon State University (CLSU)
213	Pilot Testing and Technology Validation of NanoZeolite Processes	Industrial Development Institute (ITDI)
214	Establishment of BatStateU Center for Technopreneurship and Innovation (Technology Business Incubation)	Batangas State University (BatStateU)
215	Innovation Hub: Diliman	UP Diliman
216	Capacity Building, Community Outreach and Diffusion of DOST-PCIEERD Supported Food Technologies through ENTREPRENEURSHIP at the University of Caloocan City	University of Caloocan City
217	IP Management (From Disclosure to Strategy) of DOST-PCIEERD Projects	UP Diliman
218	Commercial Evaluation and Product Design of Eight nanotechnology Products of UPLB	UP Los Baños
219	Technology Piloting of the FPRDI Flattening Equipment	Forest Products Research and Development Institute (FPRDI)
220	Bio-Oil Production from Agricultural Waste	UP Los Baños

List of Projects Completed with Peer-reviewed journals, Presented in National and/or International Conferences

1. Design and Development of Aerial Mapping and Imaging Systems and Standards
2. Design, Fabrication, and Evaluation of Monitoring and Sampling Devices for Particulate Matter
3. Project e-Bayanihan: A Nationwide Web - Mobile Based System for Participatory Disaster Management
BAYANIHANETS: Building Robust and Sustainable Cooperative Community Networks
4. Project 1. Development of a Multipath Transport Protocol for Cooperative Community Networks
5. Project 2. ARC: An Application Framework for Robust Communications Transport over Community Networks
6. Project 3. Development of Routing Metrics for High Throughput and Congestion Free Routing over Wireless Community Mesh Networks
Chemical Sensors for Mine Site Monitoring
7. Project 1. Mapping of Heavy Metal Contamination in the Philippine Mining Soils Using Laser-induced Breakdown Spectroscopy (LIBS) Field Sensors
8. Project 2. Optical Sensors for the Determination of Zn and Cu in Ambient Water
9. Project 3. Gaseous Elemental Mercury Sensors for Atmospheric Monitoring
10. Project 4. Integrated Sensing System Using Mobile and Cloud Technologies for Mining and Nearby Communities
11. Project 5. Data Integration and Visualization of Sensor Output for Mine Site Monitoring
CRAVAT - Coral Reef Assessment and Visualization Advanced Tools
12. Project 1. FISHDROP 360: Development Tools for Improved Monitoring of Reef Fish Communities
13. Project 2. Teardrop Upgrade
14. Project 3. Integration of ARRAS and CRAVAT Tools
15. Developing Capabilities for Biophysics Research at the University of San Carlos
Development and Deployment of Early Warning System for Deep-Seated Catastrophic Landslides
16. SENSLOPE: Development and Deployment of Landslide Sensors and Data Communication System
Development of Nanosensors and Nanostructured Materials from Agricultural By-products for Enhancement of Food and Agricultural Productivity and for Environmental Sensing and Remediation
17. Project 1. Removal of Arsenic from Contaminated Water using Modified Biopolymer-Silica Nanocomposite Materials
18. Project 2. Detection and Analysis of Arsenic in Contaminated Water
19. Project 4. Development of a Zinc Oxide Thin Film for Gas Sensing
20. Project 5. Development of a Controlled Release Nanoencapsulated Plant Growth Regulators from Locally Isolated Plant Growth Promoting Bacteria (PGPB) for High Value Crops Production
21. Project 6. Optimization and Bench-scale Preparation of a hemicellulose-chitosan/tripolyphosphate (polyphosphate) Nanocomposite coating and its Use in the Post-Harvest life extension of papaya (*Carica papaya L.*) fruits
22. Project 7. Development of Pectin-collagen/nanocellulose Biocomposite coatings from mango peel and Nata De coco for the postharvest-life extension of mango (*Mangifera indica L. cv Carabao*) and bell pepper (*Capsicum annum*) fruits
23. Project 8. Nanotechnology for the Philippines forest products industry: Cellulosic Nanocrystals from selected Philippine bamboo species
24. Project 9. Characterization and performance analysis of nanosilica powder incorporated in biodegradable film based on cassava starch for food packaging applications
25. Pilot Scale Production of Nanoencapsulated Plant Growth Regulators for the Production of High Value Crops

Development of Nanosensors and Nanostructured Materials from Agricultural By-products for Enhancement of Food and Agricultural Productivity and for Environmental Sensing and Remediation – Phase 2

26. Project 3. Bench-scale Production of Hand-held Nanosensors for Methane Using Zinc Oxide Film
27. Project 4. Bench-Scaling of the Production of Cellulosic Nanocrystals from Kawayang-tinik (*Bambusa blumeana*) and Its Utilization for Renewable Nanomaterials
28. Project 5. Production of Nanosilica from Rice Hulls and Rice Hull Ash and Bench Scale Verification of the Production of Biodegradable Packaging Using Cassava Starch-RHA Nanosilica
29. Hemicellulose Extraction, Process Development and Toxicological Evaluation of a Hemicellulose-chitosan/tripolyphosphate (polyphosphate) Nanocomposite Coating for the Postharvest-life Extension of Papaya (*Carica papaya* L.) Fruits

Development of National Standards for Chemical Measurements

30. Project 1. Interlaboratory Comparisons of Additives and Contaminants in Foods
31. Project 2. Production of Secondary Certified Reference Materials and Provision of Proficiency Tests for Metals in Water (Elemental Water Solutions)

Development of Philippine Scientific Earth Observation Microsatellite (PHL-MICROSAT)

32. Project 4. Calibration and Validation of Remote Sensing Instruments for PHL.MICROSAT
33. Development of Plasma Technology for the Sterilization of Food Products, Packaging, and Contact Surfaces in Food Processing

DOST Nationwide Operational Assessment of Hazards

34. Disaster Management using Web-GIS
35. Enhancing Philippine Landslide hazard maps with LIDAR and High-resolution Imageries
36. System to identify, Quantify and Map the Storm Surge Threat to Philippine Coasts
37. Weather Information Integration for System Enhancement

Enhancement of Biotechnology Products and Services for Food, Feed and other Agro-Industrial Applications

38. Sub Program 2. Project 1. Development of Probiotic Starter Cultures and Adoption of Technology for Functional Food
39. Sub Program 3. Project 1. Improvement and Commercialization of Microbial-based Fertilizers and Plant Growth Promoters
40. Development of Oyster Powder for Use as Ingredient and Condiment

Fuel Ethanol Production from Lignocellulosic Feedstocks

41. Project 4. Optimization of Saccharification, Fermentation and Purification processes for Pilot Scale Ethanol Production from Lignocellulosic Materials
42. Program for Computer Literacy (ComLit)

Interdisciplinary Signal Processing for Pinoys (ISIP Program)

43. Project 6. Philippine Languages Database for Mother Tongue-Based Multilingual Education and Applications

Intelligent Transport Systems (ITS)

44. Contactless Apprehension of Traffic Violators on 24-Hour Basis and All-Vehicle Detection System (CATCH-ALL)
45. Advanced Traffic & Pollution Monitoring and Analysis System Based on GPS Trajectory Data, Air Quality Data and Engine Status Data collected from Taxis in Metro Manila (ATPMS)
46. Development of a Customized Local Traffic Simulator (LOCALSIM)
47. An Integrated and Optimal Scheduling of a Public Transport System in Metro Manila (PUBFix)
48. Prototyping of a Diesel-Electric Parallel-Series Hybrid Vehicle for Public Transportation
49. Production, Characterization and Application of Red Pigment Produced by *Monascus purpureus* M1018

Mineral Extraction with Responsibility for Sustainability (MinERS)

50. Project A. Non-Hazardous Methods of Gold Extraction for Philippine Small-Scale Mining Applications

51. Project C. Optimizing the Effectivity of Coco-peat Filter Bed in Field Applications
52. Project E. Nanofiber Membrane Adsorption for Third Level Waste Water Treatment Method for Small Scale Mining Operations
53. Project G. The Gold and Copper Chase: Life Cycle Analysis of Sustainable Small-Scale Production System
54. Development and Deployment of Adaptive, Interactive, SMS-Based Modules for English
55. Stealth Assessment of Student Conscientiousness, Cognitive-affective States, and Learning using and Educational Game for Physics
Nanostructured Solar Energy Devices
56. Project 3. GaAs-based Solar Cell Devices
57. Project 4. Modification of Graphene for Nanostructured Photovoltaic Cells
58. Experimental Studies on Thermophysical and Transport Properties Characterization of Industrially Important Solvent System and Process Simulation Studies of Post-Combustion Capture of CO₂ and H₂S using Aqueous Single and Blended Alkanolamine Solutions
National R&D Program for Natural Rubber Processing and Rubber Products Manufacturing
59. Project 2. Optimization and Improvement of Process in the Production of Technically Specified Rubber and Demonstration of Improved Facilities in Zamboanga Peninsula
60. Project 3. Enhancing and Increasing Local Content in Rubber for Motorcycle Tire Application
61. National Space Promotion, Advancement and Capability Expansion (SPACE) Development Program
Phil - LiDAR 1.2. LiDAR Data Processing and Validation by HEIs
62. Project 1.B.1 LIDAR Data Processing and Validation in Luzon: CAR and Selected Sites in Region 1
63. Project 1.B.2 LIDAR Data Processing and Validation in Luzon: Northeastern Luzon
64. Project 1.B.3 LIDAR Data Processing and Validation in Luzon: Region 3 and Pangasinan (Region 1)
65. Project 1.B.4 LIDAR Data Processing and Validation in Luzon: MIMAROPA and Laguna (Region 4)
66. Project 1.B.5 LIDAR Data Processing and Validation in Luzon: CABARZON (Region 4A except Laguna)
67. Project 1.B.6 LIDAR Data Processing and Validation in Luzon: Bicol (Region 5)
68. Project 1.B.7 LIDAR Data Processing and Validation in Visayas: Western Visayas (Region 6)
69. Project 1.B.8 LIDAR Data Processing and Validation in Visayas: Central Visayas (Region 7)
70. Project 1.B.11 LIDAR Data Processing and Validation in Mindanao: Regions 10, 12, and ARMM
71. Project 1.B.12 LIDAR Data Processing and Validation in Mindanao: Selected Sites in Northern Mindanao (Region 10) and 11
72. Project 1.B.13 LIDAR Data Processing and Validation in Mindanao: Davao Region / Southern Mindanao (Region 11)
73. Project 1.B.14 LIDAR Data Processing and Validation in Mindanao: CARAGA Region (Region 13)
PHIL LIDAR 2.1 Automation of Feature Extraction from LIDAR Data for the Nationwide Detailed Resources Assessment
74. Project 2.A.1 Agricultural Resources Extraction from LIDAR Surveys
75. Project 2.A.2 Aquatic Resources Extraction from LIDAR Surveys
76. Project 2.A.3 Forest Resource Extraction from LIDAR Surveys (FReXLS)
77. Project 2.A.4 Development of the Philippine Hydrologic Dataset (PHD) for Watersheds from LIDAR Surveys
78. Project 2.A.5 Philippine Renewable Energy Resources Mapping from LIDAR Surveys
PHIL LIDAR 2.2 LiDAR Data Processing, Modeling and Validation by HEIs for the Nationwide Detailed Resource Assessment
79. Project 2.B.1 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Northern Luzon (Region 1)
80. Project 2.B.2 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Luzon: Region 2 and Abulog River Basin in Region 1

81. Project 2.B.3 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Luzon: Region 3 and Pangasinan
 82. Project 2.B.4 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Luzon: MIMAROPA and Laguna (Region 4)
 83. Project 2.B.5 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Luzon: CABARZON (Region 4A except Laguna)
 84. Project 2.B.6 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Luzon: Bicol (Region 5)
 85. Project 2.B.7 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Western Visayas (Region 6)
 86. Project 2.B.8 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Central Visayas (Region 7)
 87. Project 2.B.9 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Eastern Visayas (Region 8)
 88. Project 2.B.10 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resources Assessment in Zamboanga Peninsula (Region 9)
 89. Project 2.B.11 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resources Assessment in Northern Mindanao (Region 10)
 90. Project 2.B.12 LiDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Selected Sites in Region 10 and ARMM
 91. Project 2.B.13 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resource Assessment in Davao Region / Southern Mindanao (Region 11), South Cotabato and Sarangani
 92. Project 2.B.14 LIDAR Data Processing, Modeling and Validation by HEIs for the Detailed Resources Assessment in Mindanao: CARAGA Region (Region 13)
- Program for Rehabilitation and Restoration of Mined-Out Areas through Phytotechnologies*
93. Conservation of Native Metallophytes, Phytochemistry of Nickel Hyperaccumulators and Phytostabilization and Restoration of Mined-out Areas in Palawan, Surigao and Zambales
 94. Metal Bio-Indicator Plant Species of the Philippines
 95. Copper and Arsenic Recovery as a Post Mining Activity Using Indigenous Plant Hyperaccumulators
96. ROGER- Robust and Rapidly Deployable GSM Base Stations and Backhaul for Emergency Response
- Sensors for Agricultural and Fishery Ecosystems and Harvests Safety (SAFEHarvestS)*
97. Project 1. Development of Portable Surface Plasmon Resonance MIP-based Sensor for Detection of Histamine in Shrimps
 98. Project 3. Development of Potentiometric-MIP Test Kit for the Detection of Clenbuterol in Meat
 99. Project 4. Development of Electrochemical Sensor Platform for Meat and Fish Freshness Monitoring
 100. Project 6. Molecularly Imprinted Polymer Modified-Carbon Paste Electrodes (MIP-CPEs) as Multi-analyte Sensor for the Detection of Organophosphorus Pesticides Chlorpyrifos and Fenitrothion and Triazine Herbicide Atrazine
- Smart Grid Technology for Filipino Household*
101. Project 1. Design and Development of a Smart Home Platform
 102. Project 2. Design and Development of an Advanced Metering Infrastructure (AMI) Emulator Platform
 103. Project 3. Prepaid Metering and Smart Home System: Technology Acceptance and Technology Features Studies
- SmartWire Program*
104. Project 1. Energy Efficient Data Acquisition and Conditioning for the SmartWire Sensor Node Project
 105. Project 3. Energy Ultra-Low Power Computation and Communication for the SmartWire Sensor Node Project
 106. Project 4. Resilient Data Transport

107. Tactical Operative Amphibious Drive (T.O.A.D.)
108. Rainfall Spatial Analysis in Butuan City Using GIS
109. Design and Development of a Local Microwave Vacuum Dryer (MVD)
110. Simulation and Evaluation of an AGT System Passenger Stations - Phase 2
111. Performance Testing of Five-Coach Centrally Powered Hybrid Electric Road Trains for Local Applications - Phase 2
Technological Support for the Upgrading of the Local Cacao and Cocoa Industry
112. Project 1. Improving the Quality of Solid Cocoa Liquor Including Molded Cocoa Nibs and Developing the Capability of Small Scale Processors in the Manufacture of Intermediate Cocoa Products
113. Project 4. Design and Fabrication of Equipment for the Production of Local Cocoa Products
114. Voices of Yolanda: Narratives of Risk and Coping Among Survivors of Typhoon Yolanda in Tacloban City, Guiuan Eastern Samar and San Francisco, Cebu
115. 3-D Gestures on 2-D Screen for User Interface
116. A Graphene-Based Electrochemical Supercapacitor for Solar Cells
117. Black Sand Mineral Characterization
118. Deployment and Field Testing of Eco-friendly Septic System (Eco-Sep) in Boracay Island Phase II
119. Design and Implementation of a Power Distribution System for Data Centers
Program for Responsible Mining
120. Project 3. Alternative Technology for Processing of Chromite and Laterite Ores: Crude Fe-Ni-Cr Alloy Production
121. Project 5. ICT Support for Responsible Mining (Use of GIS, Data Mining and DSS for Analysis of Mining Areas in Mindanao)
122. Project 6. Rehabilitation of Areas Affected by Nickel Mining in Surigao Provinces Towards Eco-Restoration
123. Development of a Dipstick Assay Format for Detection of Salmonella in Food and Feeds
124. Development of Wireless Sensory Network System for Structural Integrity Monitoring of Bridges (SMART BRIDGE)
125. Drought and Crop Assessment and Forecasting (DCAF)
126. Establishment of Centralized Facility of Ultra High Temperature/High Temperature Short time Pasteurizer for Milk, Coconut Water and Other Juices
127. Fabrication of Supercapacitors Using Indigenous Textiles as Electrode Materials
128. Fabrication of a Solid-State Rechargeable Li-ion Battery Using Li₇La₃Zr₂O₁₂ as Solid Electrolyte for Energy Storage Applications
129. Geophysical characterization of an overriding plate: Arc-continent convergence and its implications for natural hazards and resource distribution in the Central Philippine
130. Gitara ni Juan: Development of Prototype Design and Standardization of the Guitar-making Process for Quality Classical Guitars Using selected Philippine Woods
131. Linking active margin tectonics and overriding plate dynamics: A look at the geochemical nature of the Central Philippines
132. Synthesis and Characterization of Novel Metal Nanoparticle-doped Electroactive Polymer Materials and Their Possible Application for Gas Sensing
133. Nanostructured Electrocatalyst Composites for Direct Ethanol Fuel Cell: Preparation, Characterization and Performance Evaluation
134. Nanostructured Electrocatalysts Based on Graphene-support Nanoparticles Towards Direct Ethanol Fuel Cell Application
135. Optimization, Bench-scale Preparation and Toxicological Evaluation of Pectin-Gelatin/Nanocellulose Biocomposite Coatings from Mango Peel and Nata de Coco for the Postharvest-Life Extension of Mango (*Mangifera indica* L. cv Carabao) and Bell Pepper (*Capsicum annum* L.) Fruits
136. Pilot Scale Standardization of Product and Processes using Drum Drying Technology on Selected Raw Materials (Mango, Banana and Makapuno)
137. Piloting and Market Validation of the UP Technologies on Rapid Electric Vehicle Charging or CharM (Charging in Minutes) in Cauayan City, Isabela for Progressive SMARTER City

138. Polymer Electrolyte Systems Based on Carrageenan for Solid State Dye Sensitized Solar Cell
139. Radiation-induced grafting of nonwoven fabrics for waste water treatment to meet Class C effluent heavy metal standards
140. Rapid Electric Vehicle Charging Station (CharM)
141. Retracing the Central Philippine Overriding plate motion
142. Field Deployment of Telemedicine Devices
143. Support to the Commercialization of 500 DOST-Generated Technologies (CYs 2015-2017): Creation of an IP Database Management System and Provision of Initial Support to the Fairness Opinion Board for 12 DOST-Generated Technologies - Phase 1
144. Synthesis and Application of Novel Nano-Scale Photocatalysts with Different Dopants for the Treatment of A) Dimethyl Sulfoxide, B) Chlorophenols in Aqueous Solutions and C) Gaseous Formaldehyde
145. Synthesis of Metal Nanowires and their Application in Foldable Transparent Conducting Electrode
146. Synthesis, Morphology and Chemical Modification of Fullerene-Based Nanomaterials for Nano-engineered Structural Materials and Optoelectronic Applications
147. Technology Generation for the Production of Multi-Nutrient Extruded Rice Kernel (MNERK) to Address Malnutrition
148. The Geology of an overriding plate: Constraints from field geology, sediment geochemistry and paleontology
149. Tidal Current Energy Integrated Resource Assessment and Spatial Planning Tool
150. Trace and Rare Earth Element Geochemistry of Selected Porphyry-Epithermal Cu-Au Deposits in the Philippines

PCIEERD Research Priorities in the Harmonized National R&D Agenda (HNRDA)

	PCIEERD Research Areas	With New/Ongoing Projects
1	Food and Nutrition Security	X
2	Countryside Development	X
3	Competitive Industries	X
4	Delivery of Social Services	X
5	Intelligent Transportation Solutions	X
6	Renewable Energy and Energy Storage Solutions	X
7	Human Security	X

Partnerships with Public and Private Stakeholders and International Organizations

1. Ateneo de Manila University (ADMU)
2. Adventist University of the Philippines (AUP)
3. Aklan State University (ASU)
4. Asian Institute of Management (AIM)
5. Ateneo de Zamboanga University (ADZU)
6. Ateneo de Davao University
7. Bataan Peninsula State University (BPSU)
8. Batangas State University (BatStateU)
9. Benguet State University
10. Bicol University
11. Cavite State University (CavSU)
12. Central Mindanao University (CMU)
13. Camarines Sur Polytechnic Colleges (CSPC)
14. Caraga State University (CarSU)
15. Central Luzon State University (CLSU)
16. Central Philippines University
17. De La Salle University (DLSU)
18. De La Salle University (DLSU) - Science and Technology Complex (STC)
19. De La Salle Araneta University
20. Don Mariano Marcos Memorial State University (DMMMSU)
21. FEATI University
22. Futuristic Aviation and Maritime Enterprise, Inc. (FAME)
23. Geektown Inc.
24. Grayscale Marketing Consultancy
25. Hiraya Technology Solutions, Inc.
26. Holy Angel University
27. Isabela State University (ISU)
28. Ideaspac
29. Mindanao State University - Iligan Institute of Technology (MSU-IIT)
30. Malayan Colleges Laguna (MCL)
31. Mapua Institute of Technology (MIT)
32. Mariano Marcos State University (MMSU)
33. Marinduque State College
34. MachiBox Inc.
35. Mataverse
36. Mindanao Autonomous College Foundation, Inc. (MACFI)
37. Northwest Samar State University (NwSSU)
38. National Institute of Molecular Biology and Biotechnology (NIMBB), UP Los Baños
39. Pampanga State Agricultural University (PSAU)
40. Pangasinan State University - Bayambang
41. PhilSurin
42. Polytechnic University of the Philippines (PUP)
43. RestoGraph, Inc.
44. Rurok Industries
45. Southern Leyte State University (SLSU)
46. Surigao State College of Technology-Del Carmen
47. Sultan Kudarat State University (SKSU)
48. ToonCity Academy
49. Tekton Geometrix Inc.
50. UP Diliman
51. UP Los Baños
52. UP Cebu
53. University of San Carlos

54. University of Asia and the Pacific
55. UP Baguio
56. UP Mindanao
57. University of Cordilleras
58. University of Santo Tomas (UST)
59. University of Southern Mindanao (USM)
60. UP Open University (UPOU)
61. University of San Jose Recoletos (USJ-R)
62. University of Caloocan City (UCC)
63. University of Rizal System
64. Visayas State University
65. WattSmart Corp
66. Wesleyan University of the Philippines
67. Western Philippines University (WPU)
68. Department of Energy (DOE)
69. Department of Public Works and Highway (DPWH)
70. Mindanao Development Authority (MinDA)
71. MARINA
72. Department of Budget and Management (DBM)
73. National Security Council (NSC)
74. National Water Resources Board (NWRB)
75. Department of National Defense (DND)
76. HUDCC
77. National Irrigation Administration (NIA)
78. Kyushu Institute of Technology (Kyutech)
79. Tohoku University
80. Hokkaido University
81. Revolution Precrafted
82. Newton Agham
83. Research Councils UK
84. e-Asia Program
85. Wave Computing
86. Philippine Advanced Technological Research and Development for Internet of Things (PATRIOT) Consortium