

**Philippine Council for Industry, Energy and Emerging Technology Research and Development 2016 List of PCIEERD
-GIA New and On-going Projects with Beneficiaries**

Title	Status	Implementing	Beneficiaries
<i>Climate Resilience Infrastructure Initiative Program (CRII)</i>			
Automated Real-Time Monitoring System (ARMS) for Ambuklao, Binga, and San Roque Dams	New	Mapua Institute of Technology (MIT)	1.National Water Resources Board (NWRB) 2. Dam Operator 3. LGU's
<i>Competitive Advancement of Technologies and Competencies of Human Resource Upgrading (CATCH-Up)</i>			
Design and Optimization of Austenitic Manganese Steel Liners for Philippine Aggregates and Mineral Processing - Project 3	New	Metals Industry Research and Development Center	1. Philippine foundries 2. Philippine aggregates and mineral processing industry
<i>CY 2016 MECO-TECO Cooperation Program</i>			
Synergistic effect of Forward Osmosis and Capacitive De-Ionization for Water Purification and Recovery	New	Malayan Colleges Laguna	1. Industry partners along the CALABARZON-REG IV-A with wastewater discharges containing heavy metals. 2. LLDA for the protection of Laguna Lake
<i>Development of Seismic Recording Instruments for Energy Exploration and for Disaster Preparedness</i>			
Geophysical Exploration Instruments with Micro-seismic Imaging and Tomography for Energy Exploration in the Philippines - Project 1	New	Tekton GeoMetrix Inc.	1. Energy exploration companies that will be involved in the test exploration 2. The Department of Energy 3. Communities in the vicinity of the exploration areas 4. The Filipino exploration industry and Filipino exploration service providers 5. Students of geology and physics Indirect beneficiaries: 1. The Philippine economy 2. The geology and geophysics community
<i>e-Asia Joint Research Program</i>			
e-Asia: Development of Information Gathering and Utilization Systems using small Unmanned Airborne Vehicles (UAVs) for Disaster Risk Assessment, Monitoring and Response	New	PHIVOLCS	1. People living near active volcanoes and active faults 2. People affected by disasters. 3. Local government units 4. PHIVOLCS researchers and monitoring personnel.
<i>Innovation Hub</i>			
Innovation Hub: Diliman	New	UP Diliman	1. Research and Development institutions 2. Academe 3. Startups 4. SMEs 5. Government and non-government organizations

Innovation Hub: Intramuros	New	IdeaSpace Foundation	<ol style="list-style-type: none"> 1. Research and Development institutions 2. Academe 3. Startups 4. SMEs 5. Government and non-government organizations
<i>National R&D Program for Natural Rubber Processing and Rubber Products Manufacturing</i>			
Rubber Project 5: Empirical Modelling of Rubber Compounds Using Active Design of Experiment	New	College of Engineering,, UP Diliman	Local rubber manufacturers
<i>Packaging Technology</i>			
Development of Generic Packaging Materials and Technology for Selected Food Products of Food Innovation Centers (FICs) and MSMEs in the Regions	New	Industrial Technology Development Institute (ITDI)	<ol style="list-style-type: none"> 1. FICs in the region 2. 005T packaging coordinators in the region 3. M5MEs in the region
<i>UP Bike hare</i>			
Design and Development of UP Bike Share System	New	UP EEEl	<ol style="list-style-type: none"> 1. Students, faculty, and staff 2. Campus Administration.
ANEEME: Synthesizing and Sharing Animation Building Blocks for Rapid creation of 3D Motion Scenes	New	Electrical and Electronics Engineering Institute,, UP Diliman	<ol style="list-style-type: none"> 1. Education sector 2. Game developers and creators of computer generated movies 3. Local animation industry
Climate Change Adaptation and Disaster Resilience Cluster PH-US Joint Cooperation	New	PCIEERD	General Public
Detection and Identification of Legitimate Public Utility Vehicles (PUVs) Along various road netWorks (DILAW)	New	Department of Computer Science,, UP-Diliman	<ol style="list-style-type: none"> 1. LTFRB 2. Motorist
Development of a Cost-Effective Colorimetric Packaged/Frozen Fish Freshness Sensor Using Food-Compatible Materials	New	National Institute of Physics,, UP-Diliman	<ol style="list-style-type: none"> 1. Public consumers 2. Regulatory Agency
Development of an Atmospheric Plasma Jet System for Plasma Characterization and Materials Processing	New	University of the Philippines Baguio	<ol style="list-style-type: none"> 1. Faculty Members and Student of Department of Physical Sciences, College of Sciences

Development of Food Reference Materials for Nutrition Labeling for Use of Local Testing Laboratories	New	Food and Nutrition Research Institute (FNRI)	<ol style="list-style-type: none"> 1. DOST RSTLs and RDIs; 2. small and medium scale food industries; 3. local and regional food testing laboratories that are participants of PTs and/or users of RMs; 4. local accreditation body (PAO, DTI) which gives 3rdparty ISO/IEC 17025:2005 accreditation 5. commercial testing laboratories providing the analytical services; 6. local recognition bodies which give 2ndparty accreditation namely: Food and Drug Administration and Department of Health (FDA, DOH) for processed foods.
Development of Intermediate Food Products from Tulya and Dilis Bagoong and Other Products from Region 2	New	Cagayan State University (CSU) - DOST Region 2 Food Innovation Center	Fishermen, smallscale food processors, cooperatives, and local government units
Development of Wireless Sensory Network System for Structural Integrity Monitoring of Bridges (SMART BRIDGE)	New	Mapua Institute of Technology	DPWH-BOD and Maintenance Unit
Disaggregated Electricity Consumption Baseline Measurement of Micro, Small, and Medium Enterprises in the Philippines and Behavioral Response Analysis to an Intelligent Energy Management Platform using Real-Time Electricity Monitoring with Integrated Analytics and Recommendations Engine	New	WattSmart Philippines Corp.	1. micro-, small- and medium-enterprises
Dried Cassava Grates Processing and System Optimization	New	Visayas State University (VSU)	<ol style="list-style-type: none"> 1. Joji's Bakeshop 2. Bohol Cassava Farmers 3. Bakeries and Food Processors, institutional and other markets, and related ancillary sectors in Bohol 4. Machine Shop fabricating the processing machines
Electronics Product Development Center Upgrade and Operation	New	Advanced Science and Technology Institute (ASTI)	<ol style="list-style-type: none"> 1. Academic and other training institutions 2. Electronics companies and other members of the supply chain 3. Engineering associations 4. Government institutions 5. Independent designers 6. OEMs, ODMs, Resellers 7. Venture capitalists, SMEs

Enhancing the Natural Science Research Center Laboratories of Central Mindanao University	New	Central Mindanao University (CMU)	<ol style="list-style-type: none"> 1. cosmetic industries 2. graduate students 3. local communities 4. pharmaceutical industries 5. young researchers
Establishment of a Center of Innovation and Technopreneurship @ Mindanao State University-Iligan Institute of Technology (CIT@ MSU-IIT)	New	Mindanao State University-Iligan Institute of Technology (MSU-IIT)	<ol style="list-style-type: none"> 1. Graduate students from MSU-IIT 2. Other colleges/universities 3. Innovators 4. Technicians and entrepreneurs, particularly SMEs.
Establishment of an Advanced Device and Materials Testing Laboratory (ADMATEL) - Phase 5 (OPERATION OF ADMATEL)	New	ITDI	Philippines' Semiconductor & Electronics Industry
Establishment of Common Service Facility for Artisanal Small-Scale Gold Mining in Northern Mindanao	New	MSU-IIT	ASGM in Northern Mindanao
Exploratory Characterization of Scandium and Rare Earth Elements in Zambales, Palawan, and Surigao del Sur Nickeliferous Laterite Deposits	New	National Institute of Geological Sciences,, UP Diliman	scientists in the academe
Improvement of Locally Designed Micro-Hydro Turbines and Establishment of MHP Test Rig	New	University of Rizal System	<ol style="list-style-type: none"> 1. National Institution 2. People of the Philippines, Energy Sector 3. Student of URS-Morong Rizal
Integrated Risk Management of Non-Engineered Vernacular Houses for Effective Disaster Risk Reduction	New	University of the Philippines - College of Architecture	<ol style="list-style-type: none"> 1. Academic faculty, Researchers and Students 2. Construction Workforce 3. Design Professionals 4. LGUs and relevant NGAs 5. Local and International Aid Organizations 6. Local communities or organizations (NGOs and CSOs)
Integrated Scenario-based Assessments of Impacts and Hazards (ISIAIH)	New	National Institute of Geological Sciences,, University of the Philippines Diliman	<ol style="list-style-type: none"> 1. Local Government Units. 2. National Government Agencies 3. Non-Government Organizations 4. stakeholders 5. disaster management practitioners.

Market Validation of VISSER in 1st District of Zamboanga del Sur	New	University of the Philippines Diliman	<ol style="list-style-type: none"> 1. New Labangan National High School 2. Mahayag VTS 3. Malave VTS 4. Tukuran VTS 5. Midsalip National High School 6. Aurora National High School 7. Navalan National High School 8. Somnot National High School 9. Leonardo National High School 10. Tambulig National High School 11. Commonwealth National High School 12. Panagaan National High School 13. Pagadian City Science National High School 14. Zamboanga del Sur National High School 15. Dumingag National High School
Newton Royal Academy of Engineering (RAE) Leaders in Innovation Fellowship (LIF) Programme - Batch 2	New	Asian Institute of Management	<ol style="list-style-type: none"> 1. Leaders in Innovation Fellowship 2. DOST Tech transfer officers 3. The Country/Science and Innovation in the Country 4. DOST
Package Development of Bakery Product and Field Testing of Ready-to-Eat (RTE) Smoked Fish Rice Meal and Sweet Potato as Disaster/Relief Foods	New	Industrial Technology Development Institute (ITDI)	<ol style="list-style-type: none"> 1. Victims of natural calamities 2. Local food manufacturers
PagBAGO (Behavior-Adviser Guide and Operations towards Modeling Resilient Behavior during Disaster (Original Title: Disaster Agent Models (DAM): Understanding Disaster Behavior for Social Change)	New	Ateneo De Manila University	<ol style="list-style-type: none"> 1. LGUs 2. NDRRMC 3. Disaster Training Institutions
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	New	Isabela State University,, Cauayan City Campus	<ol style="list-style-type: none"> 1. Tricycle Operators and Drivers Association (TODA) in Cauayan City and Santiago City 2. Local fabricators in the region
Product and Technology Holistic Strategy (PATHS) for the Semiconductor and Electronics Industries of the Philippines	New	Semiconductor and Electronics Industries in the Philippines Foundation, Inc.	<ol style="list-style-type: none"> 1. Government 2. Academe 3. medium and small scale enterprises (M
Proposed PUP College of Engineering Sensors and Mechatronics Laboratory	New	Polytechnic University of the Philippines	<ol style="list-style-type: none"> 1. Pre-selected SME's 2. PUP Faculty and Students

Sonochemical Synthesis of Cobalt Oxide and Copper Oxide Nanostructures as Electrodes in Photoelectrochemical Water-Splitting Applications	New	Mapua Institute of Technology	1. Fuel cell companies 2. Solar Cell companies
Standards and Testing Automated Modular Platform (STAMP)	New	National Institute of Physics,, University of the Philippines Diliman	1. Public calibration laboratories in the regions
Strengthening SLSU's Capability in GIS Technologies in Support of Southern Leyte's Competitiveness and Development	New	Southern Leyte State University	1. DepEd Teachers in Southern Leyte 2. Funding Agencies and Stakeholders 3. LGU and PLGU Officials and Employees of Southern Leyte 4. SLSU Faculty, Staff and Students 5. Southern Leyte Citizens
The Pilot Plant for the Production of Organo Mineral Products for Effective Waste Water Treatment and Septic System Management	New	Adamson University	1. Food Processing/Manufacturing Firms 2. Eco-Tourism Establishments 3. Agriculture Industries 4. LGUs 5. Piggeries and Livestock Industries
Upgrading of Production Through Acquisition of CNC Machine for Ertess Plastic Industries [Project Code: PRP#2386]	New	DOST-III PSTC - Bulacan	Ertess Plastic Industries Inc
Upgrading the PNRI Neutron Laboratory for Neutron Physics and Dosimetry Research [Project Code:PRP#2489]	New	PNRI	1. PNRI 2. Nuclear regulators 3. Universities 4. Radiation workers working with neutron 5. Secondary Dosimetry Laboratory (SSDL)
On-going			
<i>BAYANIHANETS: Building Robust and Sustainable Cooperative Community Networks</i>			
BAYANIHANETS Project 1 - Development of a Multipath Transport Protocol for Cooperative Community Networks	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	Internet users
BAYANIHANETS Project 2 - ARC: An Application Framework for Robust Communications Transport over Community Networks	On-Going	Department of Computer Science,, UP Diliman	1. Communities needing a community mesh network deployment 2. Software developers

BAYANIHANETS Project 3- Development of Routing Metrics for High Throughput and Congestion Free Routing over Wireless Community Mesh Networks	On-Going	Department of Information Technology,, College of Engineering,, Central Luzon State University	1. Communities, individuals, and groups needing community wireless mesh networks 2. Engineers and Application Developers
<i>BUILD BACK BETTER: The Science and Technology of Designing and Planning Disaster-Resilient Communities, Sites &</i>			
The Architecture of Filipino Resilience: The Adaptation of Traditional Wisdom from Selected Philippine Vernacular Architecture into Modern Building Systems - Project 2	On-Going	UP Diliman	1. Engineers, architects, and other experts as future guide scheme for similar works 2. The end users for a disaster resilient housing, school, and evacuation center 3. The government agencies and DRRM authorities who are in-charge of housing projects
<i>Development of Sustainable Integrated Biological Wastewater Treatment Systems for the Food Processing Industry</i>			
Development of a Compact Wastewater Treatment System Enhanced with Bioaugmentation Technology for Quick Service Restaurant (QSRs)	On-Going	Industrial Technology Development Institute	Quick Service Restaurants
<i>e-Asia Joint Research Program (the e-ASIA JRP) Japanese-Thai-Filipino Research Cooperation in the field of</i>			
e-Asia JRP: Development of Functional Nanocarbon-Based Catalysts for Biomass Conversion Processes	On-Going	Chemical Engineering Department,, De La Salle University	1. Researchers 2. Academe
<i>Field-testing of the Integrated Gold-Copper Mineral Processing Pilot Plant in the Regions</i>			
Field-testing of the Integrated Gold- Copper Mineral Processing Pilot Plant in the Regions - Compostela Valley	On-Going	DOST Regional Office NoXI	1. Small-scale Mining Industry 2. SSM Mining Communities and associations 3. SSM operators in Compostela Valley and Academic Institutions
<i>Interdisciplinary Signal Processing for Pinoys (ISIP): Software Applications for Education</i>			
ISIP:SAFE - Project 1. Developing an Automated Reading Tutor for Elementary Students of Filipino	On-Going	Electrical and Electronics Engineering Institute (EEEI),, UP Diliman	Filipino students in the second or third level of elementary education
ISIP:SAFE - Project 2. Developing Closed Captioning Systems for Philippine Languages	On-Going	Electrical and Electronics Engineering Institute (EEEI),, UP Diliman	1. Hearing impaired Filipinos 2. Researchers (engineers, computer scientist, computational linguistics, etc.)

ISIP:SAFE - Project 3. Development of a Filipino Language Writing Tool	On-Going	De La Salle University	1. Linguists and Filipino language planners 2. Teachers and students in Philippine schools
<i>ITS-Intelligent Transport Systems</i>			
Contactless Apprehension of Traffic Violators on 24-Hour Basis and All-Vehicle Detection System (CATCH-ALL)	On-Going	De La Salle University,, Manila	1. LGU of Manila 2. Private car owners/drivers
ITS 2. Development of a Customized Local Traffic Simulator - Year 1 & 2 (LOCALSIM)	On-Going	National Center for Transportation Studies,, UP Diliman	1. DOTC 2. EDSA Passengers 3. MMDA 4. PUV Operators
ITS 3. An Integrated and Optimal Scheduling of a Public Transport System in Metro Manila (PUBFix) - Year 1 and 2	On-Going	De La Salle University	1. DOTC 2. MMDA 3. Passengers 4. PUV operators
<i>National R&D Program for Natural Rubber Processing and Rubber Products Manufacturing</i>			
Rubber Project 4. Integration of Testing Services for Rubber and Rubber Products	On-Going	ITDI-Standards and Testing Division	1. Philippine Rubber Industries Association
<i>National Space Promotion, Advancement and Capability Expansion Development Program (National SPACE Development Program)</i>			
National Space Promotion, Advancement and Capability Expansion (SPACE) Development Program	On-Going	Regulus SpaceTech	1. Philippine government 2. Private companies and agencies 3. Universities
<i>SMART TEXTILE BIOPOLYMERS R&D</i>			
Smart Textile Project 2. Durable and Regenerable Biocidal Hydantoin-Grafted Polyester and Ligno cellulosic Fiber Containing Textiles	On-Going	Philippine Textile Research Institute	Textile and garment industry
Smart Textile Project 1. Photocatalytic Multi-Functional Natural Fiber-blended Technical Textiles and Materials	On-Going	Philippine Textile Research Institute	Textile and garment industry
<i>SmartWire Program</i>			

Smart Wire Project 1 - Energy Efficient Data Acquisition and Conditioning for the SmartWire Sensor Node Project	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	1. Academe 2. Energy sector 3. Semiconductor Industry
<i>Support for Cagayan Valley Industry and Energy Research and Development Consortium (CVIERDEC) R & D Program</i>			
Development of Food Products from DOST Developed Food Processing Equipment Utilizing Cagayan Valley Local Resources-(CVIERDEC)	On-Going	Cagayan State University	Cagayan Valley Farmers/ Vegetable Processors
Postharvest and Bio-processing Mechanization Support System for Peanut and Cacao (Defatting Machine)-(CVIERDEC)	On-Going	Isabela State University	Fabricators / Peanut and Cacao Producers/Growers
<i>The Smart Wire Program</i>			
Smart Wire Project 2 - Integrated Energy Harvesting, Storage and Regulation for the SmartWire Sensor Node	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	1. Academe 2. Energy Sector 3. Semiconductor Industry
Smart Wire Project 3 - Energy Ultra-Low Power Computation and Communication for the SmartWire Sensor Node Project	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	1. Academe 2. Energy Sector 3. Semiconductor Industry
Smart Wire Project 4 - Resilient Data Transport	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	1. Academe 2. Energy Sector 3. Semiconductor Industry
<i>Water Conservation, Collection and Storage Programs</i>			
Deployment of a Low-Cost ModularType Rainwater Collection System using Locally Available Materials	On-Going	Industrial Development Institute (ITDI)	Brgy. 352, Sta.Cruz, Manila/Barangays in Taguig & Quezon City
Bio-oil/Oil Production from Agricultural Waste (Rice and Corn Straws) and Waste Plastic via Pyrolysis	On-Going	UPLB	1. Policy makers 2. Government institutions 3. law makers, aviation industry
Black Sand Mineral Characterization	On-Going	National Institute of Geological Sciences,, UP Diliman	1. LGUs whose locales have black sand mining 2. Private sector 3. Edit Scientists and Engineers

Boosting Delivery of ITDI-DOST Training Services through Development and Use of E-learning Packets	On-Going	Regional Cooperation and Training Section Industrial Technology Development Institute (ITDI)	Small and Medium Enterprises
Bringing DOST R&D Technologies to the Market	On-Going	UP Enterprise for Technopreneurship	1. Industry partners/Private sector 2. Investors 3. R&D proponents
Development of a Dipstick Assay Format for Detection of Salmonella in Food and Feeds	On-Going	National Institute of Molecular Biology and Biotechnology (BIOTECH), UP Los Baños	1. Food processing industry 2. Testing laboratories
Development of a Grid-Tied Inverter for Philippine Electronics Companies	On-Going	Electronics Industries Association of the Philippines, Inc.	Philippine Electronics Manufacturing Industries
Development of a Low-Energy Ion Source System for the Synthesis of Diamond-like Carbon Films	On-Going	University of the Philippines	1. Agricultural sector 2. Automotive 3. Machining 4. Metalworking 5. Woodworking
Development of Competence of the DOST Food Innovation Centers (FICs) and Recognition of Most Innovative Products	On-Going	Industrial Technology and Development Institute	Food Innovation Centers (FIC)
Development of Ink Using Carbon from Straight Pyrolysis of Glycerol as Electrodes in Printed Electronics	On-Going	School of Science and Engineering, Ateneo de Manila University	1. Biodiesel Industry 2. Electronics and Energy Sector 3. Health and Agriculture (for bioelectronics sensing)
Development of Interactive Software and Teaching Guides for Grades 7-10 Mathematics	On-Going	Ateneo de Manila University	Students and teachers in Public and Private Schools
Establishment and Operation of the Philippine Institute for Integrated Circuits	On-Going	Electrical and Electronics Engineering Institute, UP Diliman	1. Companies engaged in IC Design and Development activities 2. Government 3. PEZA Zones and industrial Parks 4. Semiconductor Manufacturing 5. Start-up companies 6. Universities and Institutes 7. Venture Capital

Fabrication of Supercapacitors Using Indigenous Textiles as Electrode Materials	On-Going	Research Center for the Natural and Applied Sciences,, University of Santo Tomas	1. Agricultural and transportation sector (hybrid electric vehicles) 2. Consumer electronics field, especially emergency defibrillators 3. Energy sector
Human Hands as Input Device for an Immersive Virtual Reality Experience	On-Going	Electrical and Electronics Engineering Institute,, UP Diliman	1. Developers of virtual reality (VR) applications 2. Games and entertainment industry
Investing in the Future through Basic Researches Today: Institutional Grant for Invigorating Basic Research	On-Going	National Research Council of the Philippines,,	1. Graduate and Undergraduate Students Delete Edit NRCP Members Delete Edit Researchers
Large Scale Production of Laccase from Trametes sp. for Food and Beverage Applications	On-Going	National Institute of Molecular Biology and Biotechnology (BIOTECH),, UP Los Banos	1. Environmental cleanser producers 2. Pulp and paper industries 3. Textile Industries
Marine Weather Forecasting using High Frequency Doppler Radar	On-Going	Philippine Atmospheric Geophysical and Astronomical Services Administration	1. line agencies, resource manager, Industry; and 2. policy makers, educators, scientists and the general public.
Microbial Production of Xylitol from the Hydrolysis Products of Selected Agricultural Wastes	On-Going	National Institute of Molecular Biology and Biotechnology (BIOTECH),, UP Los Banos	1. Confectionery, Food and Pharmaceutical industries 2. Corn farmers
Nanostructured Electrocatalyst Composites for Direct Ethanol Fuel Cell: Preparation, Characterization and Performance Evaluation	On-Going	Research Center for the Natural and Applied Sciences,, University of Santo Tomas	1. Agricultural sector 2. Energy sector 3. Government Units
Radiation-induced grafting of nonwoven fabrics for waste water treatment to meet Class C effluent heavy metal standards.	On-Going	Philippine Nuclear Research Institute	1. Industries with heavy metals in the wastewater
Regional Disaster Science and Management S&T Capacity Development (Phase II)	On-Going	Isabela State University	1. Local Government Units 2. Regional and Local Disaster Risk Management Council 3. State Universities and Colleges 4. Vulnerable communities
Setting-up of a One-Stop Laboratory Services for Global Competitiveness (OneLab)	On-Going	Industrial Technology Development Institute	Industries

Tidal Current Energy Integrated Resource Assessment and Spatial Planning Tool	On-Going	Department of Geodetic Engineering,, UP Diliman	<ol style="list-style-type: none">1. Department of Energy2. Financial Institutions3. Local Government Units4. People of the Philippines, Energy Sector (Government and Private)
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