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

List of PCIEERD - funded Projects for 2023

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
					TOTAL	**745,565,000**
PCIEERD Human Resource Development	HRDP was created to complement the human resource needs and requirements of the industry, energy, and emerging technology sectors. The program provides grant for visiting experts, research attachment, paper presentations, attendance to seminars/trainings and conduct of seminars/trainings/ conferences.	• Filipino researchers • Local public and private academic or research institutions • Visiting experts, can be foreign or local experts who possess the expertise needed by the requesting institution	2011	2028	MultiAgency	24,500,000
Young Innovators Program	The Young Innovators Program aims to encourage young researchers as young as high school students, to conduct independent research to accelerate the production of scientific workforce and encourage new and innovative research areas.	HS/BS/MS students (under age 30) involved in research / innovation activities	2017	2028	MultiAgency	5,000,000
Balik Scientist Program	The Balik Scientist Program (BSP) is a brain-gain initiative which encourages Filipino scientists, engineers, and experts now based outside of the Philippines to return to the country to work and actively participate in the country's efforts to strengthen the S&T capabilities of local researchers in the academe, public and private sectors, and industry, as well as to accelerate the flow of new strategic technologies that are vital to national development.	Local host institutions (government, public or private academic institution, or a Filipino-owned enterprise/ organization in the Philippines registered with the Securities and Exchange Commission (SEC))	2010	2028	MultiAgency	30,000,000

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Institution Development Program (IDP)	The IDP provides support for upgrading of research laboratories and facilities of academic and research institutions in areas within the PCIEERD sectoral priority areas or the Harmonized National R&D Agenda (HNRDA) and where there is inadequacy of research expertise and/or facilities. It includes upgrading and/or setting up of research laboratories, purchase of laboratory equipment (including highly specialized software)/facilities and small research grants aimed at developing research capabilities.	• Research institutions • Higher Education Institutions • State Colleges and Universities	01-Jul-15	2028	MultiAgency	25,000,000
Support to Regional Networks	The project aims to provide a clear direction for the regional consortia in terms of R&D and capability building undertakings and to monitor S&T activities that are significant in strengthening regional cooperation necessary in attaining national development goals.	• State Universities and Colleges • Higher Education Institutions • Regional partner agencies	2014	2028	PCIEERD Regional Consortia Members	20,000,000
Higher Education Institution Readiness for Innovation and Technopreneurship (HeIRIT) Program						
Preparatory Program for Higher Education Institution Readiness for Innovation and Technopreneurship (HEIRIT) and Establishment of University TBIs	The HEIRIT Program is a structured training program designed to guide and equip each HEIs to plan,build, implement and operate their own TBIs and initiate the convergence of innovation activities from the StartUp community in their region.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors	02-Nov-21	01-Nov-25	HEIs and SUCs	121,783,868
IP Management for Academic Institutions Commercializing Technologies (IMPACT) Program						

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
KTTO-IMPACT (IP Management Program for Academic Institutions Commercializing Technologies) Program	The KTTO-IMPACT Program aims to increase utilization and commercialization of university-based research by providing fund support for the establishment of its technology protection and transfer policies/ processes, capability building of university tech transfer officers, conduct of audit/assessment of the results of research, disclosure and protection of intellectual properties, promotion, and licensing of technologies.	• RDIs • Universities • Researchers	05-Jul-18	Continuing	MultiAgency	14,999,000
FASTRAC (Funding Assistance for Spin-Off and Translation of Research in Advancing Commercialization)						
FASTRAC (Funding Assistance for Spin-Off and Translation of Research in Advancing Commercialization)	The FASTRAC Program is established to bridge the gap between R&D and commercialization of PCIEERD-funded technologies through translation of research results into marketable technologies or spinning off as a startup as mode for commercialization.	• Universities • Researchers • RDIs	05-Jul-18	Continuing	MultiAgency	29,977,910
STARTUP Program						
Startup Grant Fund: Jumpstarting the Economy in the New Normal (Support Program for RA 11337)	As a response to the demand for quick and rapid solutions adapting to the "New Normal", the Startup Grant Fund shall support startups with technology-based solutions that can potentially contribute to economic rebirth.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors	01-Mar-17	Continuing	Multiagency	34,955,698
Women-Helping-Women: Innovating Social Enterprises (WHWISE)						

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
WHWise (Women-Helping-Women: Innovating Social Enteprises) Program	A Public-Private Partnership Program that brings together government agencies and private organizations to seek out and prepare women-led social enterprises for growth, scalability and subsequent VC funding. The program provides a suite of services which includes early stage funding, training, skills development, mentorship, and business incubation.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors • Women	01-Oct-21	Continuing	Multiagency	8,225,919
i-NEST (Innovation-to-Incubation for New & Emerging Space Technologies	The Innovation to Incubation NEST Program is a support mechanism provided to high-tech and emerging technologies that requires dedicated and specialized support for it to be commercialization. One example of emerging fields is the area of big data.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors	01-Oct-21	Continuing	Multiagency	5,000,000
SPARK UP (S&T Parks for Accelerating Research and Knowledge for Universities Program)	The SPARK-UP Program aims to support the transformation and application of the 30 DOST PCIEERD TBIs into full-blown S&T Parks. The program shall be implemented in partnership with the PEZA and the strategies shall include compliance to guidelines, branding, increasing client reach, provision of incentives and additional programs and building new programs meeting international practices for S&T Parks and Services.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors	01-Oct-21	Continuing	Multiagency	5,000,000

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SCI4GOV (Startups Creating Innovations for Government) Program	A Program that aims to deploy and/or hire startup teams, fund innovative innovative solutions by identifying the needs of government departments and challenging entrepreneurs to address them. It pays companies for their services while allowing them to test their prototypes in the real world.	• Students • Faculties • Alumni • Researchers • Entrepreneurs • Business leaders • Inventors	01-Oct-21	Continuing	Multiagency	5,000,000
PCIEERD LINC (Leveraging Innovation Partners to Nurture Collaboration) (Events)	A Partnership umbrella program are established to further strengthen the capability of researchers, start-ups and entrepreneurs within the KTTO-IMPACT and DOST TBI Network; provide opportunities for growth through networking and events, match selected spin-offs and start-ups with a network of private partners and investors both local and international; and facilitate partnerships to promote institutional collaboration and resource sharing.	University researchers/startups	01-Mar-17	Continuing	• Board of Investments • Asian Instiute of Management • MultiAgency	3,000,000
PREP: Preparing Researchers as Entrepreneurs Program	A short training program for PCIEERD researchers who plan to commercialize their research outputs with the goal of providing them with the basic business and entrepreneurial skills for them to articulate their value proposition, identify market and craft a suitable business model.	University researchers/ startups	18-Jun-18	Continuing	• Ateneo de Manila University • HEIs, SUCs • MultiAgency	2,000,000

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DOST-DTI-DICT Collaboration Project for International and Local Events for the Innovative Startup Act	The umbrella program is a collaborative effort and a partnership program between the DOST, DTI and the DICT in response to the mandates of the Innovative Startup Act RA 11337. The Partnership program provides support to startups to participate in local and international startup events, conferences and pitch sessions. This program hopes to expose local startups to different learning and competitive environments in order to equip them with the skills and experience they need in their startup business. The program also covers support for events organized together by the three agencies.	Startups and startup enablers	15-Aug-18	Continuing	• QBO • DTI-EM • DICT • MultiAgency	2,000,000
Impact Assessment Program						
Impact Assessment of DOST/ PCIEERD Funded Projects	To conduct Impact Assessment of DOST-PCIEERD funded and monitored projects. This undertaking expands its monitoring and evaluation process to cover beyond the 6Ps (i.e., Publications, Patents, Product Value, People Services, Places and Partnerships, and Policies) metric by including medium and long-term benefits.	• PCIEERD decision makers • Rsearchers • Project managers • LGUs • General public	2018	Continuing	Multiagency	10,000,000

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
Sustainable Development of Cascaded Micro-Hydro Powerplant in A Remote Community	The project aims to provide an actual physical learning demonstration of a cascaded micro-hydro power plants of about 20 kW combined power output that would supply electricity to the identified communities in Rogongon and provide research opportunities for students and a training demonstration to those who would be interested in putting up a MHPP in their areas.	• Local people in the five (5) identified sitios of Barangay Rogongon • Graduate and Undergraduate students • MHPP Developers • Local personnel and interested stakeholders	01-May-22	30-Apr-24	Mindanao State University - Iligan Institute of Technology	1,475,228
Biogas Purification using Pressure Swing Adsoprtion and Effective Micro Organisms	The study involves the conversion of waste generated from vegetables and fish in Cagayan de Oro Public Market into high quality Methane that will be stored and transported in tanks as an alternative to LPG/CNG gases which are similarly stored in tanks and consumed in households. It aims to design and develop a purification system utilizing effective microorganism and pressure swing adsorption.	• Cagayan de Oro-LGU • Stakeholders: vegetable and fish traders and vendors in Cagayan de Oro • Academe • Cagayan de Oro City Council • Households adopting portable gas purifiers • Business sector	01-Feb-23	31-Jan-25	University of Science and Technology Southern Philippines	6,979,043
Development of Waste Oil-Fired Porous Media Burner as Substitute to Fossil-Fuel Burner used in the Food Industry	Food production produces a lot of waste oil from the deep-frying process. Frying oil can only be used up to a certain point to maintain product quality and based on studies, reusing frying oil more than twice creates free radicals which increases the likelihood of heart disease, high blood pressure and other ailments. Hence, this project will design, fabricate and test waste oil fired porous media burner that can substitute the usual	• Crystal Lake Food Industries • Commercial operators and households • Researchers	01-Feb-23	31-Jan-25	Xavier University - Ateneo de Cagayan	4,157,096

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
	LPG-fired burner in the noodle production process of Crystal Lake Food Industries.					
Green Alternative Systems for Coastal, Inland, and Interisland Waterways Transport Systems						
Project 1. Development of Hybrid Marine - Air Vehicle to Satisfy various Rapid and Efficient Interisland Transport needs in the Philippines	This research study will design, build, and fly a hybrid marine - air wing - in -surface effect (WISE) vehicle prototype for rapid and efficient interisland transport applications in an archipelagic country like the Philippines.	• Local government units Bureau of Fisheries and Aquatic Resources • Philippine Navy • Department of National Defense • National Disaster Risk Reduction and Management Council • Maritime Industry Authority • Civil Aviation Authority of the Philippines • Local Boat Builders and Composite Materials Manufacturers • Higher Education Institutes	01-Jan-22	31-Dec-24	Cebu Technological University	21,117,183
Philippine Road Safety Initiatives (Pro-SafetI)						
Collection, Recording, and Analysis of Traffic Incidence Data (CREATE)	The project will produce reliable traffic incidence data which can be used for crafting possible interventions and policies on road safety.	• Road users • Philippine National Police • Land Transportation Office • Land Transportation Franchising and Regulatory Board • Department of Public Works and Highways	03-Jan-22	30-Dec-24	UP Diliman	5,760,087.2

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VIROS-ROVE: V2X Initiatives for Road Safety Road Safety V2X Initiatives	This will focus on the development of V2X technologies designed for localized road traffic conditions.	• Transportation sector • Local government units • Metro Manila Development Authority	01-Mar-22	29-Feb-24	UP Diliman	9,808,036
Detection, Treatment, and Detoxification System for Emerging Contaminant of Concerns in Wastewater (DETOXS)						
Project 3. River Ecosystem Health Assessment using Biomonitoring Tools (REHAB)	The study will investigate the presence of antimicrobial resistance (AMR) and develop and apply biomonitoring tools to assess the ecological health of Butuanon River.	• Local Community • Research Community • EMB Region 7 • Academe	05-Dec-22	04-Dec-24	UP Diliman	5,650,578
Conversion of the Quarry Wastes (Silt) into Ceramic and Brick Products	The study will utilize the waste silt found in Brgy. Binaliw, Lilo-an, Cebu, Philippines to produce important ceramic products, namely, (a) ceramic thermal insulators, (b) ceramic water filters, (c) high thermal bricks, and (d) ceramic filter.	• Local industry • Local communities • Academic and research institutions within the Visayas region	01-May-23	30-Apr-25	University of San Carlos - Talamban Campus	5,188,600
Ambient Air Remote Sensing, Modeling and Data Visualization Environment (AiRMoVE)	The project aims to identify attainment and non-attainment areas in National Capital Region for air quality monitoring using combinations of Remote Sensing (RS), Geographic Information Systems (GIS) and numerical modeling techniques.	• Local government units in the National Capital Region (Quezon City, Pasig, Manila, Paranaque) with active engagements with Clean Air Asia and other target cities like Marikina, San Juan, Malabon, Valenzuela • Transport sector, MMDA, DOTr • Health sector, DOH, UP PGH, other private and public hospitals in NCR	16-Jan-22	15-Jan-24	UP Diliman	3,920,773

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Comparative Study Between Standard Methods and Philippine Made PM and CO Measuring Devices	This project involves comparative study of the Philippine made sensors and measuring devices with the standard methods prescribed by the USEPA and followed by the EMB-DENR as well. As such, it is envisioned that the output will assist in addressing air pollution problems by ensuring the results of the developed air monitoring sensors and measuring devices are valid.	• Filipino scientists and researchers working on air quality sensors and device development particularly PM and CO • DENR and DTI • Private Emission Testing Centers (PETCs) and Industries with stacks	01-Jan-22	31-Dec-23	Industrial Technology Development Institute	7,093,800
Prediction of Long-Period Ground Motion in Megacities of the Philippines Critical to Seismic Safety of High-Rise Buildings	The project aim to provide disaster planners and local administrators of Metro Manila a prediction model on earthquake ground motion to evaluate the ground response and building performance during a strong earthquakes to be used for the strict implementation of the seismic design guidelines for buildings especially high-rise.	• LGU • DPWH • Building occupant	01-Apr-22	31-Mar-23	Philippine Institute of Volcanology and Seismology	1,307,058
Engineered smart concrete utilizing indigenous wastes for durable and intelligent infrastructure	The project will optimize the use of indigenous wastes such as durian rinds and coconut husks to develop engineered smart concrete, i.e. self-sensing and self-healing composites for durable and intelligent infrastructures.	• DPWH • Construction Industry • Environment • General public for the safety of public infrastructures • Academe	02-Aug-21	01-Aug-23	University of Mindanao	3,858,304
Thermal Processing of Selected Materials Using Agitated-Type Retorts	The study will establish thermal processing schedule using agitated retort and consolidate appropriate quality parameters for tropical fruits and sweet preserves in the Philippines. This will bring these export products to the next level: quality improvement in terms of batch quality	• Green Harvest • Blue Macay • Global Food Solutions	16-May-21	14-May-23	Industrial Technology Development Institute	2,971,367

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	uniformity, nutritional content retention, and reduction in product rejections.					
Process and Product Optimization of Black Garlic used as Flavor Enhancer	The project is projected to significantly assist the research and development efforts of Mariano Marcos State University in introducing black garlic both in the Further, it will also help Ilocano garlic farmers generate better and more stable income opportunities once the technology is adapted by MSME's and interested entrepreneurs.	• Filipino people who regularly consume noodles as part of their diet. • Ilocano garlic farmers and entrepreneurs	01-Jan-22	30-Jun-23	Mariano Marcos State University	689,753
The PEEL-Good Project: Bench-scale Ultrasound-assisted Extraction of Pectin from 'Saba' Banana Peel Waste	The project aims to develop an eco-efficient and cost-effective method for the bench-scale production of ultrasound-extracted pectin from 'saba' banana peel waste and utilize the pectin in food applications	• Local farmers and banana processors • LGU and cooperatives • Food industry • Importers of food ingredients • Academe	01-Nov-21	30-Apr-23	UP Los Baños	687,198
Knowledge Transfer to DOST Technical Staff: Catalyst to MSMEs' Gaining PQA for SMEs	The project aims to transfer knowledge and technology for Total Quality Management (TQM) innovative approaches to selected DOST Technical Staff (DTS) in the quest to accelerate TQM acceptance, practice, and sustainability in selected MSMEs.	• DOST Technical Staff • MSMEs • Industry	01-Apr-21	31-Mar-23	DOST Region IX	3,317,346
Micro-scale Continuous Extraction System for the Recovery of Uranium from Philippine Wet Phosphoric Acid	The project will develop a comprehensive and environmentally acceptable continuous micro-scale uranium recovery process.	• Phosphate fertilizer sector • Public • Academe • Mining and Minerals sector	02-Jan-23	31-Dec-25	Philippine Nuclear Research Institute	6,161,034

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
Marindu-cretE 3D: Development of a cementitious material containing silt for 3D printing applications	The project will investigate the utilization of mine tailings and silt in Marinduque to produce foam concrete.	• The community in Mogpog and Boac • Marinduque Provincial Government Environment and Natural Resources Office • Marinduque Council for Environmental Concerns • Researchers • Undergraduate and graduate students	01-Jan-23	31-Dec-23	UP Diliman	4,945,935
Valorization of Nickel Mine Wastes in Palawan as Sustainable Materials for the Production of Nano-modified Drilling Fluids	This study aims to utilize nickel mine wastes (i.e., tailing and waste rocks) for the synthesis of nanoparticles, usable to produce nano-modified drilling fluids	• Department of Environment and Natural Resources • Department of Energy • Nickel mining companies • Philippine oil and gas drilling service companies • Palawan State University	09-Jan-23	08-Jan-24	Palawan State University	4,997,429
AACT: Alternative and Advanced Copper Processing Technology						
Copper Hydrometallurgical and Solvometallurgical Extraction from Sulfides and Oxides (Cu-HySolvEr)	This study focuses on developing copper production process using hydrometallurgical and solvometallurgical extraction methods from copper sulfides and oxides.	Copper mining companies in the Philippines	01-Jan-23	31-Dec-25	UP Diliman	3,542,360
Electrorefining process development for the production of 6N copper cathodes (Cu-Refine)	The project aims to develop an electrorefining process that will produce 99.9999% copper.	Copper mining companies in the Philippines	01-Jan-23	31-Dec-25	UP Diliman	3,211,274

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NERC-DOST (UK-Philippines Minerals & Mining - Natural Environment Research Council/DOST-PCIEERD Joint Programme)						
PROMT: Philippines Remediation of Mine Tailings	By bringing together an interdisciplinary team of leading Philippine and UK researchers and industrial partners we will build a consortium to undertake a strategic large project to innovate sustainable tailings management, remediation, and rehabilitation.	• Local communities living near the mine area • Mining companies • Local and national governments • Academe and research institutions	29-Nov-21	28-Nov-24	Philippine Nuclear Research Institute	4,530,702
Philippine mining at the national to catchment scale: from legacy impacts to sustainable futures (Project PAMANA)	This partnership and project development (PPD) aims to develop a proposal to realize a combined biophysical, geomorphological and geochemical-based approach, at national- to catchment-scales, to enable catchment management practitioners to remediate legacy metal mining impacts and enhance their control of metal mine contaminants arising from current and future mining activities.	• Environmental managers • Local government units • Research institutions • Other relevant government agencies	01-Oct-21	30-Sep-24	UP Los Baños	4,652,763
Application of Ionometallurgy for Recovery and Extraction of copper from Copper Ore and Artisanal Copper-Gold Tailings (i-REACT)	Ionometallurgy, can be a new avenue for safe, environmentally benign and cost-effective extraction of Cu from copper ore and from copper tailings that are otherwise left untreated. Thus, the project will explore the application of ionometallurgy for laboratory stage extraction of copper from copper skarn deposits and from the artisanal Cu-Au mine tailings.	• Miners and residents of copper skarn deposits • Those living within the small-scale gold mining community, including the owners and workers of the processing facilities • Local government unit • Mines and Geosciences Bureau	01-Jan-23	31-Dec-23	Philippine Nuclear Research Institute	4,999,142
The Hybrid Ferrlte-BimEtallic (Hy-FIBE) process: An integrated approach for the sustainable management of acid mine drainage (AMD)						

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
A Novel Technique for the Recovery of Valuable Metals from AMD through Bimetallic Materials	This study aims to recover the valuable metals from acid mine drainage (AMD) using aluminum-based bimetallic materials.	• Mining companies • Community	01-Feb-22	31-Jan-24	Mindanao State University - Iligan Institute of Technology	2,384,400
A Two-Step Neutralization Ferrite Process as Active Remediation Technique for Environmental Treatment of AMD	The proposed process will be able to recover valuable resources such as iron (Fe) and manganese (Mn) in the sludge. Moreover, the effluent or treated acid mine drainage (AMD) can be safely discharged to the environment with hazardous contaminants levels below the standard.	• Mining companies • Community	01-Feb-22	31-Jan-24	De La Salle University	2,261,730
Aligning the Capabilities of Metro Manila's Local Legal Metrology Authorities to the ASEAN Guidelines for Non-Automatic Weighing Instruments (NAWI) and Fuel Dispensers	The study will align the capabilities of local legal metrology authorities to the ASEAN guidelines on the verification of Non-Automatic Weighing Instruments (NAWI) and Fuel Dispensers.	• Consumers of Metro Manila • Sellers and vendors in markets • Gasoline stations • Weighing Instruments and Fuel Dispensers Regulators of Metro Manila • Department of Trade and Industry • Department of Energy • Department of Interior and Local Government	01-Jan-24	30-Jun-25	Industrial Technology Development Institute	5,711,044
Recovery and Reuse of Abrasive Grains from Grinding Wheel Waste	This project shall explore extraction processes that will recover the usable abrasive grains from spent grinding wheels to address the waste generated by its disposal.	• Manufacturing sector • GICA Grinding Wheel Corporation • Ateneo de Manila University	01-Jul-23	30-Jun-24	Ateneo de Manila University	4,644,590

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Good Governance through Data Science and Decision Support System (GODDESS) Program	To support data-driven project, policy, process or system undertaken by SPARTA training participants, as part of their capstone project, that will address the needs of a government agency or professional organizations that will benefit the local population or address a national issue and contribute to Smart Governance	• LGUs • NGAs • SUCs • HEIs	01-Jan-20	Continuing	Multiagency	8,000,000
Autonomous Societally Inspired Mission Oriented Vehicles (ASIMOV)						
Project 1. Harmonized Aerial Watch and Knowledge-based Survey (HAWKS)	The goal of this project is to enable drones that can scan the area for objects of interest (humans, dwellings, buildings).	• National Disaster Risk Reduction and Management Council • Local Government Units • Robotics researchers and practitioners	01-May-21	30-Apr-24	UP Mindanao	7,050,567
Project 2. Robot for Optimized and Autonomous Mission-Enhancement Responses (ROAMER)	The project will design and build a team of autonomous robots that will serve as the basis for developing field - ready robots that can be deployed as first respondents in disaster - stricken areas in order to assist in the search and rescue operations of disaster - prone units in the country.	• National Disaster Risk Reduction and Management Council • Local Government Units • Robotics researchers and practitioners	01-May-21	30-Apr-24	Advanced Science and Technology Institute	7,706,047
Development of an AI-assisted Thunderstorm Early Warning System from Analysis of Doppler Radar Data	This project aims to design, implement, and deploy a Thunderstorm Early Warning System that will serve as a tool for use by local weather forecasters for early detection of thunderstorm warning and facilitate the issuance of thunderstorm warning in a timely fashion.	Philippine Atmospheric, Geophysical and Astronomical Services Administration	10-Jan-22	09-Jan-24	UP Diliman	3,553,772

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MINERVA: Monitoring of INdicators for Efficient Redevelopment and Value Assessment	Complement the City of Baguio's urban renewal efforts by deploying AI – powered models for prediction and monitoring for the following key areas: air pollution, urban movement patterns and tourism demand.	• Policymakers of the City Government of Baguio • AIM researchers and attached graduate students	01-Jan-22	30-Jun-25	Asian Institute of Management	5,893,640
Sandpix: A Sand based Image Printing Technology	This project aims to enable the automation and mass production of sand based printed artworks as a product of a Filipino craft and innovation.	• Implementing Agency • Researchers • Entrepreneurs • Government Buildings and Offices	01-Jan-23	30-Jun-25	Western Institute of Technology	2,292,703
A Laboratory and Game Engine/Framework for Tertiary-Level Virtual, Augmented, and Mixed Reality (VAMR) Educational Applications	This project aims to establish a high-end Virtual, Augmented, and Mixed Reality (VAMR) Laboratory and Software Development Group for the Ateneo de Manila University (ADMU) Loyola Schools Campus. It is intended to provide a viable way to consume VAMR educational content by students and visitors to the Ateneo de Manila University from multiple disciplines, both STEM and non-STEM.	• Tertiary-level students of the Ateneo de Manila University • Course instructors/facilitators who would like to integrate VAMR content in their curriculum • Local museums • Other learning-centric institutions	01-Jan-24	31-Dec-25	Ateneo de Manila University	5,558,982
Serious Games for Promoting Coherent Knowledge and Developing Critical and Problem Solving Skills in Tertiary Mathematics	The project will create serious mathematical games that will promote coherent knowledge and develop critical and problem-solving skills in tertiary level mathematics. The games will be designed to involve mathematical rigor in an interactive environment to engage and immerse the student when learning the mathematical content.	• Teachers teaching Calculus and Math • Tertiary level students	01-Jan-24	31-Dec-25	Ateneo de Manila University	5,355,144
Artificial Intelligence Program						

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Intelligent Structural Health Monitoring via Mesh of Tremor Sensors (meSHM)	This project will enable LGUs and even the national government to develop a concrete disaster-prevention policy, backed by technology, that would drastically reduce risks, damage, and disaster casualties via a cost-efficient structural health monitoring system for all public and private buildings in the country.	• DPWH • LGU – City Engineers • Property Owners • Construction Companies	15-Feb-21	14-Feb-24	De La Salle University	6,147,668
Philippine Sky Artificial Intelligence Program (SkAI-Pinas)						
Automated Labeling Machine - Large-Scale Initiative (ALaM-LSI)	ALaM-LSI maximizes the utilization of the country's remote sensing data, taking advantage of the huge volume of "archival" data already available in both raw and processed form from past projects, to serve as base sets of training data that could be augmented further to train more accurate deep learning models.	• Researchers focusing on remote sensing and deep learning • Schools and students interested in artificial intelligence, remote sensing, and related areas • Government agencies • Groups or individuals who would be able to utilize the technology	01-Oct-21	30-Sep-24	UP Mindanao	24,678,519
ASTI Automated Labeling Machine (ASTI-ALaM)	The project to have an optimized workflow for developing machine learning and artificial neural network-based models for different application domains will be established to be utilized by different stakeholders such as the ALaM-LSI of UP Mindanao and DATOS Project.	• Alam-LSI research group • Identified stakeholders • Research groups in state and private universities	01-Oct-21	30-Sep-24	UP Mindanao	24,215,218
Photonics Integrated Circuits - based Devices for Aeronautic Space Engineering Calculation and 5G Applications						

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Project 1. Kepler-Equation-in-a-Photonics-Chip: A Leapfrogging technology to Calculate Multiple Satellites' Positions using PIC - based Optical Analogue to Kepler's Equation	This project aims to have a photonic signal processing method that optically mimics Kepler's equation rather than computing it as normally done with an electronic computer.	• Ateneo de Manila University's Physics Department and ECCE Department • Ateneo de Davao University's Aerospace Engineering Department • Potentially emerging Philippine commercial satellite industry focusing on Photonic - assisted Space Instrumentation • Potentially emerging Philippine photonic integrated chip industry • Philippine Space Agency and related agencies with interests in satellite position	17-Jan-22	16-Jan-24	Ateneo de Manila University	6,220,050
Project 2. Photonic Integrated Circuit (PIC)-based Linearized Optical Frequency Discriminator filter for 5G Applications	This project will develop simpler, smaller, low - power components for the receiver module so that they can be positioned closer than ever to the 5G/6G antenna.	• Telecommunication companies • University studies • Ateneo de Manila University • Potentially emerging Philippine Photonic Integrated Chip industry	17-Jan-22	16-Jan-24	Ateneo de Manila University	2,462,743
Terahertz (THz) Research and Innovation Program Leading to Commercially Viable THz Time Domain Spectroscopy Systems						
Project 1. MBE Growth of InGaAs and Heterostructures Suited for Telecom-wavelength Excited	This project aims to design and grow novel low band gap semiconductors and semiconductor heterostructures, and fabricate THz devices based on the MBE-grown samples. It will also train and involve	• Industry • Academe	03-Jan-23	02-Jan-25	UP Diliman	17,073,019

Project Title	Project Description / Objective	Beneficiaries	Start Date	End Date	Implementing Agency	2023 GAA
Terahertz Device Applications	more Filipino students on the MBE design, growth, and fabrication of novel semiconductor heterostructures as THz emitters/detectors.					
Project 2. Development of Low-cost, Fast-scan Terahertz Spectroscopy for Real World Applications	The study will develop a rapid scan terahertz time-domain spectroscopy system.	Material scientists and researchers	01-Jan-23	31-Dec-24	UP Diliman	23,838,599
AeroComp: Enhanced Lightweight Fiber-reinforced Composites Structures for Aerospace and Defense Applications	The general objective of this study is to build capacity to fabricate own materials resources for satellite structures and ballistic technologies, that are lightweight and made of fiber-reinforced composite materials.	• Department of National Defense • Space technology groups in the country • Aircraft manufacturers • Automotive and marine vehicle manufacturers	01-Feb-22	31-Jan-24	UP Diliman	7,499,948
Computational modeling via Direct Simulation Monte Carlo method of laser ablation and plasma expansion—in relation to the deposited film characteristics on a substrate	This project will provide a computational method to optimize the uniformity of the deposited film that can be applied to other physical vapor deposition techniques. The method will shorten the production time of high-quality films while reducing wastage of materials.	Students and researchers of the University of the Philippines	01-Jan-23	02-Jan-24	UP Diliman	780,440
ADMATEL Proposals	The proposal aims to develop technologies on pharmaceutical products using multivariate analysis; spectrofluorometric detection and quantification of aluminum iron	• Maritime • Manufacturing • Steel • Pharmaceutical	01-Jan-23	31-Dec-23	Multiagency	10,000,000

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	in water using metal nanoclusters; profiling of plastics from multi-layered sachets for recycling purposes; development of ceramic femoral for total knee replacement designed for Filipino patients; and development of a coating with self-healing properties based on epoxy and superabsorbent polymer for industrial applications.	• Petrochemical and power generation industries				
Development of a Smart Polymer Meta-Material for Wearable Biosensors	The research objective of this proposal is to design and synthesize advanced wearable smart polymer meta-materials radar antenna integrated with fabric materials that are suitable for long-term accurate monitoring and imaging of human cardiopulmonary motions that can provide advancement in the fundamental understanding of the electromagnetic wave propagation in the RF region as it goes thru the human phantom model.	People who suffered from ischemic heart disease that needs immediate cardiac monitoring, attention and relief	05-Oct-20	04-Oct-23	De La Salle University	7,040,606
Metal Oxide Hybrid Structured Barriers for Stable Energy Devices	The project will produce and integrate a hybrid MON/ALD-MO layer matching the barrier properties of all ALD layer to improve the long term stability for battery and perovskite solar cell application.	• Researchers • Academe • Energy sector	01-Oct-20	30-Sep-23	De La Salle University	3,154,600
Designing High Entropy Alloy Surfaces for Catalytic Applications using Atomistic Calculations and Materials Informatics Investigations	The objective of this cooperative research project is to computationally design high entropy alloys for catalyst and battery applications by performing atomistic calculations and materials informatics methods.	• Young students and researchers • Energy and environment sectors • Metal industry sector • Science community	01-Apr-22	31-Mar-25	UP Los Baños	2,499,769

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Fabrication of Graphene-based Nanostructure Substrates for Applications in Ultrasensitive Detection	The main goal is to fabricate gold (Au) and silver (Ag)-G substrates with at least two functionalities through cost-effective methods.	• MSEP students • UP Community • Companies manufaturing commercial substrates • Water filter manufacturers	15-Feb-20	14-Feb-22	UP Diliman	2,307,342
In Silico Nanotoxicology Evaluation of Engineered Nanomaterials: Bridging the Data Gap on Experimental Approaches for Toxicity Appraisal with Implications to Nanomaterial Risk Assessment and Nano-safety	The project will develop and/or apply a generalized toxicity prediction model of engineered nanomaterials with defined nanomaterial's physicochemical and structural predictors and biological end points.	• The Philippine Government • Local Government Units • Researchers • Policy Makers	17-Jan-22	16-Jul-23	Caraga State University	965,448
Unmanned Vehicle Systems (UVS) R&D						
Collaborative aerial-ground unmanned system for exploration and monitoring of Philippine active volcanoes	The project will develop a collaborative aerial-ground aerial-ground unmanned system that can facilitate the personnel of PHIVOLCS for gathering of information in active volcanoes.	• DOST - PHIVOLCS • Disaster risk reduction management teams • MSU-IIT, nearby schools, and Universities	01-Jun-22	31-May-24	Mindanao State University - Iligan Institute of Technology	4,075,354
Extended Communication and Electronics Signal Enhancement and Development (EXCEED) of an	The project aims to develop a fully functional flying ad-hoc network of drone swarms for volcanic activity monitoring.	• Philippine Tourism Industry • Volcanologist • Filipino people	01-Jan-23	31-Dec-24	De La Salle University	5,414,539

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Unmanned Aerial Vehicle System for Emergency Response Situations						
Development of Underwater Sensor Network for Tsunami Detection Through Ground Station Terrestrial and Nanosatellite Communication	This project intends to setup Ground Sensor Terminals (GST) to be installed in buoys and sea vessels which will be deployed in areas with high seismic activities like the Verde Island Passage. Potential natural threats such as tsunami will be detected through the ocean wave movement and underwater seismic activity in which will be the post-processed signals that will be predicted using machine learning.	Philippine Navy	01-Jan-24	31-Dec-25	University of Perpetual Help System DALTA - Las Piñas	9,778,231
Financial Support for the Information Dissemination and Promotion of Technologies	This project aims to disseminate research results to the different stakeholders of DOST-PCIEERD to increase their awareness, deepen their appreciation, and gather their support on science-based initiatives.	• Public • Researchers/Academe • Policymakers • Industry Players	2010	Continuing	Multiagency	500,000
DANAS: Earthquake, Tsunami and Volcano Disaster Narratives for an Experiential Knowledge-based Science Communication	This project will systematically document laypeople's narratives from experiential knowledge of disasters using local languages and analyze relationship with the science of earthquake, tsunami and volcano towards motivation, behavioral intentions, and adaptive responses for improved science communication to empower people.	• Science communication practitioners • Scientists • Educators • DRRM practitioners • Non-government organizations • Civil society organizations	01-Jan-23	31-Dec-24	Philippine Institute of Volcanology and Seismology	11,367,336

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The PSHC in the Future: A Scoping Study on Preparing for the Future of the PSHC	The project will be beneficial in improving the facilities and services of the Philippine Science Heritage Center (PSHC) by providing the blueprint for the development of exhibitions, considering the future technologies and trends to ensure the competitive advantage of the PSHC over other competitors. This will also help in convincing possible funding agencies and partners that investing in science culture would be worthwhile.	• General public • Science center • Museum workers	01-Jul-22	30-Jun-23	National Academy of Science and Technology	2,551,449
One DOST Virtual Science Centrum: Development of Virtual Interactive Science Exhibits	The project is establishing and developing a web portal to showcase all operational DOST Science Centrum and at the same time, offer fun and learning experiences at the comfort of their homes. Individuals can walk through the gallery encompassing exhibits from the other regions using smartphone, computer or any capable devices.	• Students • Teachers • Out-of-School Youth (OSY) • Science enthusiasts	01-Jan-23	31-Dec-23	DOST Region V	4,952,324
e-Asia Joint Research Program						
Post-Synthetic Modification of Select Zeolites in the Catalytic Conversion of Waste Palm Oil to Biofuels	This study aims to identify and prepare relatively cheap catalysts towards development of a viable technology in the conversion of waste palm oil to biofuels.	• Industries that develop catalyst and biofuel technology • Local communities • Local mining industry	01-Apr-23	31-Mar-26	UP Diliman	8,250,000

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Microwave Photonics Devices for Optical Access Network and Sensing Application using microring resonator (MRR)-based Photonics Integrated Circuits and Optical Fibers	The research will focus on the design and prototyping of a novel integrated microwave photonic (MWP) filter design for Radio and Optical Access Networks communication and Sensing Applications.	• Telecommunication companies • Philippine Photonic Integrated Chip industry • Universities • Ateneo de Manila University Physics and Electronics, Computer, and Communications Engineering departments	01-Jan-23	31-Jan-26	Ateneo de Manila University	7,725,063
UKRI-NERC / DOST-PCIEERD - Sustainable Mineral Resources in the Philippines Joint Programme	The DOST-PCIEERD and UKNERC came up with the program titled, “Mining and Environment: An Integrated Approach for ecosystem rehabilitation of Philippine abandoned mining areas through Novel Technologies and New Approaches for monitoring, resource recovery and understanding the impacts of mining contaminants to address environmental problems” and impacts brought by these legacy and abandoned mines. This program seeks to fund new research that generates a whole system view of mineral production.	• Industries • Researchers • Communities	01-Apr-21	31-Dec-24	Multiagency	1,905,630
Project Management/ Assessment and Policy Development Program (M&E)	This project aims to establish policies for Monitoring and Evaluation (M&E) of GIA funded research through the conduct of assessment studies of completed and ongoing projects.	• Researchers • Policymakers	2011	Continuing	Multiagency	22,284,003