

**INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE  
LIST OF 2019 IMPLEMENTED PROJECTS**

Project Code	Program or Project	Project Duration		Project Status	Project Leader	Beneficiaries
		Start	End			
<b>CHEMICALS AND ENERGY DIVISION</b>						
RDR-CED-2019-01	Development of Prototype 100L Low Cost Semi-Automated Reactor for the Production of Liquid Detergent Soap	1-Jan-2019	31-Dec-2019	Completed	OC Evangelista	Consumers and Manufacturers of Liquid Detergent Soap
RDR-CED-2019-03	Compressed Biogas Technology (CBT) for Household and Commercial Applications	1-Jan-2019	31-Dec-2019	Completed	AVO Bawagan	Residential and Energy industry
RDR-CED-2019-04	Isolation, Purification and Characterization of Curcumin from Philippine Turmeric (Curcuma Longa L.)	1-Mar-2019	31-Dec-2019	Completed	EB Manongsong	Producers of Turmeric
RDR-CED-2019-02	Extraction, Characterization of Rubber Seed Oil and Its Synthesis to Biolubricant	1-Jan-2019	1-Dec-2019	Completed	CG Bilbao	Energy Industry
RDRD-CED-2018-01	ITDI Livelihood Program for Reconstruction and Rehabilitation of Marawi	1-Aug-2018	30-Dec-19	Completed	EA Ongo	Marawi Community
LFP-CED-2019-01	Modular Innovation Center for Oils, Blends and Sauces (Y3)	1-Jan-2017	31-Dec-2019	Completed	A. Briones	Food manufacturing industry
RDA-CED-2017-01A	I-SALT: Improving Productivity and Efficiency of Local Salt Producers Towards a Self-Reliant Philippines in 2020 Project 1 : Design, Prototyping of Salt Processing Equipment (Washer, Dryer, Iodizer, Crystallizing Pan, Furnace, Concentrator (ion-exchange membrane)	1-Jul-2017	29-Feb-2020	Ongoing	A. Briones	Salt Industry and Consumers
RDA-CED-2017-01B	Project 2: Development of Gourmet Salt Products and Micro-Sized Salt in Laboratory Scales	1-Jul-2017	31-Mar-2019	Completed	A. Briones	
RDA-CED-2018-01	Characterization/Performance Testing of the Biodiesel/Diesel Blends from Combined Feedstock of Various Vegetable and Used Cooking Oils	1-May-2018	31-Dec-2019	Completed	A. Briones	Energy Industry
RDA-CED-2018-02	Capability Building on Energy Efficiency and Conservation (EE&C) for State Universities and Colleges of Six (6) Regions as Demonstration Sites	1-Apr-2018	31-Dec-2019	Completed	A. Bawagan	State Universities and Colleges in Six Regions
<b>ENVIRONMENT AND BIOTECHNOLOGY DIVISION</b>						
RDR-EBD-2019-01	Development of Microbial Inocula for Industrial Applications	1-Jan-2019	1-Dec-2019	Completed	U.G. Bigol	Industrial Sector
RDR-EBD-2019-05	Production of freeze-dried lacasse for biotechnological application 1. Xylanase	1-Jan-2019	1-Dec-2019	Completed	U.G. Bigol	Fermented products producers

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RDR-EBD-2019-06	Molecular Characterization of Lactic Acid Bacteria (LAB) from Fermented Foods in the Philippines	1-Jan-2019	1-Dec-2019	Completed	E. Panerio	Fermented products producers
RDR-EBD-2019-07	Genotypic Screening of industrially-Important Enzymes Produced by Bacillus sp. Isolated from Soil	1-Jan-2019	1-Dec-2019	Completed	E. Panerio	Agricultural businesses, farmers
RDR-EBD-2019-02	Nutrient Removal of Anaerobically-treated Piggery Wastewater	1-Jan-2019	1-Dec-2019	Completed	D. Herrera	Swine industry
RDR-EBD-2019-03	Development of Chemical Oxidant Delivery System for Remediation of Petroleum Contaminated Soil	1-Jan-2019	1-Dec-2019	Completed	Judith C. Tejano	Agricultural businesses, farmers
RDR-EBD-2019-04	Development of a Bench-Scale Biological Wastewater Treatment Design Facility	1-Apr-2019	1-Dec-2019	Completed	RL Retamar	Waste Management Sector
RDA-EBD-2019-01	Post-treatment of food processing wastewater effluent for nutrient removal	22-Jan-2019	21-Jan-2020	Ongoing	RL Esguerra	Waste Management Sector
RDA-EBD-2017-03	Aerobic Treatment of Anaerobically Pre-digested Swine Wastewater using Activated Sludge and Subsequent Polishing using Biological Filters, Trickling Filter System	16-Mar-2017	15-Mar-2019	Completed	R. Retamar	1. Swine industry in Region IVA 2. Stakeholders of Laguna Lake
RDA-EBD-2017-04	Pilot Scale Production of Spray-Dried Dextran and High Fructose Syrup using Whole Cell ( <i>Leuconostoc mesenteroids</i> isolates) ITDI Fermentation Technology	6-Nov-2017	5-Nov-2020	Ongoing	U. Bigol	1. Coconut oil processors with coconut water as by-products 2. Food industry and other potential users of locally supplied fructose syrup and dextran 3. Potential commercial producer of dextran and high fructose syrup

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RDA-EBD-2017-02	Assessment of Metal Content of Food and Water Resources in Volcanic Impacted Areas PROJECT 3: Household and Community Based Filters for Metal in Waters	1-Jan-2017	30-Jun-2019	Completed	RL Esguerra	1. Consumers of water and agricultural produce 2. Policy makers on food and water safety 3. Private and public water resource managers 4. Local government officials as overseers of community health and welfare
RDA-EBD-2017-06	Assessment of Metal Content of Food and Water Resources in Volcanic Impacted Areas PROJECT 2: Metal Content of Water Supplies in Volcanic Impacted Area and its Impact to Vegetation	1-Jul-2017	30-Jun-2019	Completed	EA Ongo	Locals/Consumers in Volcanic Impacted Areas
<b>FOOD PROCESSING DIVISION</b>						
RDR-FPD-2019-01	Food Safety Assessment of Hazards from Artisanal Food Processing Equipment used in Taho, Sorbetes, and Peanut Butter Processing in Taguig City, Metro Manila ( former Food Safety Assessment of Hazards from Artisanal Food Processing Equipment used in Taho, Sorbetes, and Peanut Butter Processing in Parañaque City and Taguig City, Metro Manila)	1-Jan-2019	1-Dec-2019	Completed	L. Montevirgen	Food Manufacturers/ Processors, Halal Food Consumers and Halal Food Institutions
RDR-FPD-2019-03	Application of Osmotic Dehydration as a Pre-Treatment for Vacuum Frying Selected Fruits	1-Feb-2019	31-Jul-2019	Completed	R. Belandres	Food Manufacturers/ Processors, Halal Food Consumers and Halal Food Institutions
RDR-FPD-2019-04	Exploratory studies on: (1) Separation Techniques for Cocoa Butter and Cocoa Cake; (2) Chocolate Confectionery	1-Jan-2019	31-Mar-2019	Ongoing	MD Villaseñor	Food Manufacturers/ Processors, Halal Food Consumers and Halal Food Institutions

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RDR-FPD-2019-05	Development of a low-mineral sweet sorghum syrup as an alternative sweetener	1-Jan-2019	1-Dec-2019	Completed	ME Falco	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDR-FPD-2019-06	Clarification and Concentration of Coconut Water and Philippine Calamansi Extracts using Microfiltration and Reverse Osmosis	1-Jan-2019	1-Dec-2019	Completed	ME Falco	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDR-FPD-2018-01	Comparison of Quality of Dried Products Using Conventional Dryer and Heat-pump Dryer	1-Feb-2018	31-Mar-2019	100%	J. Ocasla	Food Industry; Farmers and producers, Consumers, LGU, School and Universities and Food Organizations and Institutions
RDR-FPD-2019-07	Development of Shelf-Stable Food Products as Ready Food Reserve	1-Jul-2019	31-Dec-2019	100%	MD Villaseñor	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
	Natural Food Colors from Local Source as Food Additive (Proj. 4: Natural Dyes and Colorants R&D Program) Y2	15-Feb-2018	31-Mar-2020	Ongoing	M. Villasenor	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDA-FPD-2018-01	Establishment of Spray Drying Technology and Equipment for the Regional food Innovation Centers-Batch 2	1-Feb-2018	31-Mar-2020	Ongoing	NG Ambagan	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDA-FPD-2018-02	Development of Corn-Based Products for Candaba and Bacoar, Pampanga	1-Aug-2018	30-Jul-2019	Completed	MDL.Villaseñor	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions

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RDA-FPD-2018-03	Establishment of Halal Assurance System for Processing Selected Banana Products (Banana Chips, Banana Catsup, and Frozen Banana)	1-Aug-2018	30-Jul-2019	Completed	MEM. Falco	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDA-FPD-2018-04	Establishment of Halal Assurance System for Bakery Products (Pandesal and Loaf Bread)	1-Aug-2018	30-Jul-2019	Completed	LS. Montevirgen	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
RDA-FPD-2018-05	Technical Guidelines Development for Minimally Processes Halal Chicken and Chicken By-Products (Edible Giblets)	1-Aug-2018	31-Dec-2019	Completed	ME. Evaristo	Food Manufacturers/Processors, Halal Food Consumers, Poultry Industry and Halal Food Institutions
RDA-FPD-2018-06	Development of Emulsified Meat Products (Sausage, Nuggets and Burgers) for Halal Market	1-Aug-2018	30-Jul-2019	Completed	ME. Evaristo	Food Manufacturers/Processors, Halal Food Consumers and Halal Food Institutions
<b>MATERIAL SCIENCE DIVISION</b>						
RDR-MSD-2019-01	Development of Soft Ballistic Component of Bullet Proof Vest from Hybrid Composite local materials	1-Jan-2019	31-Dec-2019	Completed	M. Paglicawan	Military personnel and Composite fabricators
RDR-MSD-2019-05	Functional Coating: Production and Performance Testing of Nano Silica-based Hydrophobic Coating	1-Jan-2019	31-Dec-2019	Completed	J. Celorico	Mining industry, Manufacturing industries, Energy industries

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RDR-MSD-2019-06	Development of Ultrafiltration/Nanofiltration Hollow Fiber Membrane for Drinking Water Application (Phase 2)	1-Jan-2019	31-Dec-2019	Completed	M. Margarito	Communities/individual with no access to potable water, Military personnel, Various process industries employing membrane separation technology
RDR-MSD-2019-07	Innovative Ceramic Materials for Ballistic Protection	1-Jan-2019	31-Dec-2019	Completed	J. Celorico	Military personnel and Composite fabricators
RDR-MSD-2019-02	Fabrication of Prototype Utility Tent as Temporary Shelter for Disaster and Natural Calamity Victims	1-Jan-2019	31-Dec-2019	Completed	P. de Yro	Disaster and Natural Calamity Victims
RDR-MSD-2019-03	Fabrication of Prototype and Field Testing Performance of Floating Baby Capsule	1-Jan-2019	31-Dec-2019	Completed	C. Emolaga	Plastic manufacturers, composite fabricators, LGUs, Disaster & Rescue Personnel, Disaster-stricken communities
RDR-MSD-2019-04	Southeast Asian Atmospheric Corrosion Exposure Study of Electronic Equipment and Components under Marine Environment in the Philippines (SEA ACES) Year 5	1-Jan-2019	31-Dec-2019	Completed	A. Monsada	Industries or establishments in aggressive/corrosive environment or location
RDR-MSD-2019-08	Asia Nano Forum 2019	1-Jan-2019	31-Dec-2019	Completed	P. De Yro	Industries focusing on nanotechnology
RDRA-MSD-2018-01	Deployment of Innovative Rainwater Collection Systems in Marawi	1-May-2018	31-Dec-2019	Completed	B. Basilia	Marawi Community
RDA-MSD-2019-01	Program: Advanced Additive Manufacturing R & D Project 1:Development of Multiple Materials Platform for Additive Manufacturing (MATDEV)	3-Jan-2019	31-Dec-2021	Ongoing	B. Basilia	Manufacturing Industry

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RDA-MSD-2019-02	Prototype Development of Natural Fibre-Thermoplastic Composites from Agricultural and Industrial Wastes for Industrial Applications	1-Apr-2019	30-Mar-2020	Ongoing	M. Paglicawan	Agricultural and Industrial Sector
RDA-MSD-2017-05	Assessment of Metal Content of Food and Water Resources in Volcanic Impacted Areas: Project 3- Study 1: Household Based Filters for Metals in Water	1-Jul-2017	30-Jun-2019	Completed	B. Basilia (Program Lead)	Communities/individual with no access to potable water or heavy metal-laden water resources
RDA-MSD-2017-07	Program: Intelligent Data Analysis System (IDAS) for Drug Trafficking Investigation in the Philippines Project 1: Application of Multivariate Analysis on Methamphetamine HCl Chemical Fingerprints and Kinetic Stability Modelling (Collaborative	16-Dec-2017	31-Dec-2020	Ongoing	A. Monsada	PDEA
RDA-MSD-2017-08	ADMATEL Expansion and Business Continuity	10-Nov-2017	9-Nov-2020	Ongoing	A. Monsada	Semiconductor and Electronics Industry, Academe, Various manufacturing industries
RDA-MSD-2018-01	Fabrication and Performance Evaluation of Abaca Fiber Reinforced Composites for Boat Applications	1-Apr-2018	2-Apr-2019	Completed	M. Paglicawan	Composite fabricators, Boat manufacturing industry, Fishing sector, Marine tourism, Abaca Fibers industry
RDA-MSD-2018-02	Environment, Health and Safety Research on the Risk Assessment of Nanomaterials	1-Jun-2018	31-May-2020	Ongoing	B. Basilia	Manufacturers and end-users of nanotechnology based materials and products
<b>PACKAGING TECHNOLOGY DIVISION</b>						
RDR-PTD-2017-14	Effect of Shock and Vibration on the Quality and Shelf Life of Mangosteen	1-Jul-2018	31-Oct-2019	Completed	ES. Orendain	Food and Packaging Industry with Mangosteen Products

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RDR-PTD-2019-01	Effect of Storage Conditions on Migration Characteristics of Benzophenone in Paper and Paper-based Food Packaging (Phase 2) (Phase 1 - RDR-PTD-2018-04)	1-Jan-2019	31-Mar-2020	Ongoing	JL. Diaz	Food and packaging industry
RDR-PTD-2019-02	Data Acquisition of Shock and Vibration Values in the Delivery (Motorcycle and Closed Van) of E-commerce Products within Metro Manila	1-Jan-2019	29-Feb-2020	Ongoing	ET. Nolasco	Food and packaging industry
RDR-PTD-2019-03	Development of Retort Foods as Food Ration for Philippine Army during Combat Operations and Encounters (Phase 1)	21-Jan-2019	31-Mar-2021	Ongoing	FV. Loberiano	Philippines Army and beneficiaries of food rations
RDR-PTD-2019-04	Asia Packaging Network (APN) and International Packaging Symposium and ISTA-APD International Symposium on Distribution Packaging October 22 to 25, 2019	16-Nov-2018	31-Mar-2020	Ongoing	D.E. Tañafranca	Food and packaging industry
RDR-PTD-2019-05	Branding as a Tool in Promoting Packaging Technologies Developed by PTD	16-Apr-2019	31-Dec-2019	Completed	KJR. Dizon	Existing Producers/Manufacturers; Prospective Brand Owners
RDR-PTD-2019-06	Development of Intelligent Packaging Colorimetric Sensor to Monitor the Quality and Safety of Smoked Fish (Y1)	1-Jun-2019	31-Dec-2020	Ongoing	R. Garalde	Food and packaging industry
RDR-PTD-2019-07	Shelf-life Extension of "Bukayo" and "Budín" through the Application of Improved Packaging Technology	21-Jul-2019	31-Mar-2020	Ongoing	F.V. Loberiano	Food and packaging industry
RDR-PTD-2017-15 changed to RDA-PTD-2017-15	Development of an Effective Distribution System for RTE foods (chicken arroz caldo and fish rice meal) to Mitigate the Magnitude of Distress for Calamity Survivors and	1-Dec-2017	30-Nov-2018	Completed	D. Tanafranca/ G. Noceja	Calamity stricken areas nationwide
		1-Dec-2018	30-Jun-2020	Ongoing		
RDA-PTD-2016-04	Upgrading and Enhancing the Capacity of the Packaging Technology Division in Packaging Research and Innovation	1-Dec-2016	30-Nov-2019	Completed	D. Tanafranca/ G. Noceja	Food and packaging industry
RDA-PTD-2019-04	Asia Packaging Network (APN) and International Packaging Symposium and ISTA-APD International Symposium on Distribution Packaging October 22 to 25, 2019	1-Apr-2019	31-Mar-2020	Ongoing	DE. Tañafranca	Food and packaging industry
<b>NATIONAL METROLOGY DIVISION</b>						
<b>Enhancement of the Competence and Capabilities of the National Metrology Laboratory of the Philippines</b>						
RDRD-2017-NMD-01	Project 1 : Chemical Metrology for Organic Contaminants in Food and Water	1-Jan-2017	31-Dec-2021	Ongoing	B. Ebarvia	Laboratories nationwide
RDRD-2017-NMD-02	Project 2 : Chemical Metrology for Inorganic Toxic Elements in Food and Water	1-Jan-2017	31-Dec-2021	Ongoing	B. Ebarvia	Laboratories nationwide



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RDRD-2017-NMD-03	Project 3 : Biological Metrology for Microorganisms in Food	1-Jan-2017	31-Dec-2021	Ongoing	M. Aguinaldo	Laboratories nationwide
RDRD-2017-NMD-04	Project 4: Strengthening the Physical Metrology Capabilities of the National Metrology Laboratory (NML)	1-Jan-2017	31-Dec-2021	Ongoing	K. Suycano	Laboratories nationwide
<b>STANDARDS AND TESTING DIVISION</b>						
RDA-2017-STD-03	Development of Natural Colorants for Cosmetics (Proj. 2: Natural Dyes and Colorants R&D Program)	16-Mar-2017	31-Dec-2019	Completed	R. Torres	Consumers and Manufacturers/Processors of Halal Products
RDA-2018-STD-02	Establishment of Halal Assurance System for Production, Method Development and Standardization of Cosmetics and Toiletries	1-Aug-2018	31-Jul-2019	Completed(Y1)	R. Torres	Consumers and Manufacturers/Processors of Halal Products
RDA-2018-STD-01	OneLab Capability Assurance System for Metal Content Assessment in Agricultural Produce, Water and Environmental Samples	1-May-2017	31-Sep-2019	Completed	R. Fuertes	Farmers and consumers
<b>TECHNOLOGICAL AND SERVICES DIVISION</b>						
RDA-2018-TSD-01	Pilot Implementation of ITDIs Pre-Commercialization Tools/Strategies for Effective Transfer and Commercialization of Generated Technologies and Intellectual Properties	4-Jul-2017	5-Apr-2019	Completed	N. Florendo	ITDI Researchers and respective adoptors of the technology developed