## INDUSTRIAL TECHNOLOGY DEVELOPMENT INSTITUTE

Implemented Programs and Projects

As of Q4 2020

Division/			Duration		Status
No.	Project ID / Project Title	Start	Completion Date		
CHEMICA	LS AND ENERGY DIVISION		Original	Revised	
CITEMICA					
1	RDR-CED-2019-01 Natural Hydrocolloid as Alternative Emulsifier and Stabilizing Agent from Okra (Hibiscus esculentus) Pods	01-Jan-20	31-Dec-20	31-Mar-21	Ongoing
2	RDR-CED-2020-02 Processing of Anti-freezing Agent for Biodiesel	17-Feb-20	31-Dec-20	31-Mar-21	Ongoing
3	RDR-CED-2020-03 Development of Uninterruptible Power Back-Up System Using Motor Control for Lighting Applications as Sample Electrical Load	17-Feb-20	01-Jan-21	31-Mar-21	Ongoing
4	RDR-CED-2020-04 Catalytic Hydrogenation and Transesterification of Highly Unsaturated Fatty Acids from Rubber Seed Oil	17-Feb-20	31-Dec-20	31-Mar-21	Ongoing
5	RDR-CED-2020-05 Bench-scale Production of Curcumin from Philippine Turmeric using Different Extraction Methods	01-Jan-20	31-Dec-20	31-Mar-21	Ongoing
6	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	30-Jun-2019	29-Feb-2020	Completed
7	RDA-CED-2020-01 Modular Innovation Center for Oils, Blends and Sauces (Y3)	1-Jan-2019	31-Dec-2019	31-Dec-20	Completed
8	RDA-CED-2020-02 Design and Prototyping of Salt Harvesting Machine	1-Mar-2020	28-Feb-2021		Ongoing
9	RDA-CED-2019-01 Establishment of Plastic Waste Pyrolysis System along Esteros for the Rehabilitation of Manila Bay	1-Oct-2019	28-Feb-2020	31-Jul-2020	Completed
10	RDA-CED-2020-03 Nanostructured Herbal Extract of Momordica charantia (Bitter melon/Ampalaya), Allium sativum (Garlic) and Curmuma longa L. (Turmeric) as Antidiabetic Agents	1-Aug-2020	31-Jul-2021		Ongoing
<b>ENVIRON</b>	MENT AND BIOTECHNOLOGY DIVISION				
11	RDR-EBD-2020-01 Development of a Fermentation Product (Kimchi-Filipino adaptation) from locally-grown vegetables using indigenous LAB isolates as starter culture	1-Jan-2020	31-Dec-2020	31-Mar-21	Ongoing
12	RDR-EBD-2020-02 Utilization of Chicken eggshell wastes as biomaterial for hydroxyapatite synthesis	1-Jan-2020	31-Dec-2020		Completed
13	RDR-EBD-2020-03 Bioactive Substances from Actinomycetes Isolated from Different Sources Phase 1. Isolation and Screening of Actinomycetes from soil, soil/ plant litter and soil/ compost mixtures	1-Jan-2020	31-Dec-2022		Ongoing
14	RDR-EBD-2020-04 Development of an Improved In-vessel Composting System	17-Feb-2020	31-Dec-2022		Ongoing
15	RDR-EBD-2020-05 Development of Air Biofilters for the Control of Ammonia	17-Feb-2020	31-Dec-2021		Ongoing
16	RDR-EBD-2020-06 Dissolved Copper Removal from Semiconductor Wastewater Effluent by Electrowinning Process	17-Feb-2020	31-Dec-2021		Ongoing
17	RDR-EBD-2020-07 Upgrading of the Emergency Waster Disinfection System	1-Mar-2020	31-Dec-2021		Ongoing
18	RDA-EBD-2020-01 Integrated Mapping, Monitoring, Modelling and Management System for Manila Bay and Linked Environments (IM4ManilaBay) Project 3: Management of Dredge Material: Characterization, Treatment and Disposal (CharTed DreaM)	1-Jul-2020	31-Jan-2021		Ongoing

<u> </u>	T				
Division/ No.	Project ID / Project Title	Duration Completion Date			Status
		Start	Original	Revised	
19	RDA-EBD-2019-01 Post-treatment of food processing wastewater effluent for nutrient removal	22-Jan-2019	21-Jan-2020	31-Oct-20	Completed
20	RDA-EBD-2019-02 Strengthening the Municipal Solid Waste Management Program: A Guide on Preparation of Waste Analysis and Characterization Study (WACS) Plan for the National Capital Region Local Government Units	1-Sep-2019	1-Jun-2020	31-Dec-2020	Completed
21	RDA-EBD-2019-03 Pilot-Scale Biogas Production of Biodegradable Solid Waste for Muntinlupa City	1-Oct-2019	1-Oct-2020		Completed
22	RDA-EBD-2017-04 Pilot Scale Production of Spray-Dried Dextran and High	6-Nov-2017 4-Nov-2018	Completed		
	Fructose Syrup using Whole Cell (Leuconostoc mesenteroids isolates) ITDI Fermentation Technology	5-Nov-2018	4-Nov-2019	5-Apr-2020 5-Nov-2020	Completed
23	RDA-EBD-2020-02 Cataloging Possible Philippine Strains of Zika and African Swine Fever Viruses and Coconut Cadang-Cadang Viroid through Genome Sequencing	1-Jul-2020	1-Mar-2020		Ongoing
24	Support to the Sustainable Environmental Managament in Malay, Aklan Project 2: Development of a Compact Wastewater Treatment System for Restaurants in Boracay Island	15-Jul-2019	15-Jul-2020	31-Dec-2020	Ongoing
FOOD PR	OCESSING DIVISION				
25	RDR-FPD-2019-04 Exploratory studies on: Study 2: Chocolate Confectionery	1-Jan-2019	1-Dec-2019	31-Mar-2020	Completed
26	RDR-FPD-2019-07 Development of Shelf-Stable Food Products as Ready Food Reserve (GAD Project)	1-Jan-2020	30-Sept-2020	31-Dec-2020	Completed
27	RDR-FPD-2020-01 Development of Alternative Techniques for Okra Flakes/Sheets Processing	1-Apr-2020	31-Dec-2020	30-Jun-2021	Ongoing
28	RDR-FPD-2020-02 Characterization of Philippine Banana Cultivars for Food Processing Application	1-Jan-2020	30-Sep-2020	31-Dec-2020	Completed
29	RDR-FPD-2020-03 Establishment of Food Safety System for High Risk Bakery Products for Public Consumption	1-Jan-2020	31-Dec-2020	30-Jun-2021	Ongoing
30	RDR-FPD-2020-05 Improving the Quality of Deep-Fat Fried Cassava Chips RDR-FPD-2020-06	1-Sept-2020	30-May-2021		Ongoing
31	Natural Flavorings from Local Sources as Food Additive Study 1: Optimization of Spray Drving of Flavors from	1-Apr-2020	31-Dec-2020	30-Jun-2021	Ongoing
32	RDA-FPD-2017-01 Natural Food Colors from Local Source as Food Additive (Proj. 4: Natural Dyes and Colorants R&D Program)	15-Mar-2017	14-Mar-2018	30-Jun-2020	Completed
33	RDA-FPD-2018-01 Establishment of Spray Drying Technology and Equipment for the Regional food Innovation Centers-Batch 2	1-Feb-2018	31-Dec-2018	31-Dec-2020	Completed
34	RDA-FPD-2018-03 Establishment of Halal Assurance System for Processing Selected Banana Products (Banana Chips, Banana Catsup, and Frozen Banana)	1-Aug-2018	1-Jul-2019	31-Jan-2021	Ongoing
35	RDA-FPD-2018-04 Establishment of Halal Assurance System for Bakery Products( Pandesal and Loaf Bread)	1-Aug-2018	1-Jul-2019	31-Dec-2020	Completed
36	RDA-FPD-2018-06 Development of Emulsified Meat Products (Sausage, Nuggets and Burgers) for Halal Market	1-Aug-2018	1-Jul-2019	31-Mar-2021	Ongoing
37	RDA-FPD-2020-08 Development of Powder Salted Egg Using Appropriate Processing Technologies	1-Jan-2020	1-Aug-2020	1-Dec-2020	Completed
38	RDA-FPD-2020-11 Plant Protein Products from Local Sources	1-Jul-2020	30-Jun-2022		Ongoing

-· · · ·					
Division/ No.	Project ID / Project Title	Start	Comple	tion Date	Status
		Start	Original	Revised	
MATERIA	LS SCIENCE DIVISION				
39	RDR-MSD-2020-01 Nanozeolite Monoliths for Gas Adsorption Application	1-Jan-2020	31-Dec-2020		Completed
40	RDR-MSD-2020-02 Synthesis, Characterization and Production of Starch Nanocrystals	1-Jan-2020	31-Dec-2020		Completed
41	RDR-MSD-2020-03 Biomass-derived Carbon Quantum Dots and CQD/Polymer Composites for Biomedical & Industrial Applications	1-Jan-2020	31-Dec-2020		Completed
42	RDR-MSD-2020-04 Superparamagnetic Iron Oxide Nanoparticles (SPIONs) from Natural Mineral Deposits - Phase 1	17-Feb-2020	31-Dec-2020		Completed
43	RDR-MSD-2020-05 Development of Portable Ultrafiltration/Nanofiltration Membrane Module for Treatment of Potable Water for Remote/Field Application (Mabuhay Straw)	17-Feb-2020	31-Dec-2020		Completed
44	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
45	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	31-Dec-20	Completed
46	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 HCI Chemical Fingerprints and Kinetic Stability Modelling (Collaborative Project with PDEA/ASTI)	16-Dec-2017	31-Dec-2018	31-Dec-2020	Completed
47	RDA-MSD-2017-08 ADMATEL Expansion and Business Continuity	10-Nov-2017	9-Nov-2020	31-Dec-2020	Completed
48	RDA-MSD-2018-02 Environment, Health and Safety Research on the Risk Assessment of Nanomaterials	1-Jun-2018	31-May-2020	31-Mar-2021	Ongoing
49	RDA-MSD-2019-03 Nanofibrous Scaffolds from Natural Biomaterials for Tissue Engineering	1-Jul-2019	30-Jun-2020	30-Sep-2020	Completed
PACKAGII	NG TECHNOLOGY DIVISION				
50	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-Dec-2019	31-Mar-2020	Completed
51	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	31-Dec-2019	29-Feb-2020	Completed
52	RDR-PTD-2019-06 Development of Intelligent Packaging Colorimetric Sensor to Monitor the Quality and Safety of Smoked Fish	1-Jun-2019	31-Dec-2019	31-Mar-2021	Ongoing
53	RDR-PTD-2019-07 Shelf-life Extension of "Bukayo" and "Budin" through the Application of Improved Packaging Technology	22-Jul-2019	31-Dec-2019	30-Jul-2020	Completed
54	RDR-PTD-2019-03 Development of Retort Foods as Food Ration for Men in Uniform during Combat Operations and Encounters (Phase 1)	21-Jan-2019	31-Dec-2019	31-Dec-2020	Terminated
55	RDR-PTD-2020-01 Development and Assessment of bacterial cellulose derived from fruit waste as a bio-based plastic film	1-Jan-2020	31-Dec-2020	30-Jun-2021	Ongoing
56	RDR-PTD-2020-02 Establishment of Shelf Life and Safety of Chilled Ready to Heat and Freshly Cooked Ready to Eat Foods Sold in Convenience Stores and Delivery Service	1-Jan-2020	31-Dec-2020	31-Mar-2021	Ongoing

D:	Т	Duration			
Division/ No.	Project ID / Project Title	Completion Date			Status
		Start	Original	Revised	
57	RDR-PTD-2020-03 Shelf life extension of selected fresh-cut tropical fruits by alginate based edible coating with lemongrass oil	16-Jan-2020	15-Jan-2021		Ongoing
58	RDR-PTD-2020-04 Development of anti-oxidant film based on chitosan containing spent ground coffee extract (Y1)	1-Jan-2020	30-Jun-2021		Ongoing
59	RDR-PTD-2020-05 Exposure assessment of Filipino Consumers to benzophenones migrated from paper and paperboard used as packaging for food and beverages (Y1)	1-Jun-2020	31-Oct-2021	30-Nov-2021	Ongoing
60	RDR-PTD-2020-06 Development of random vibration test procedures/methods using Acquired shock and vibration data in the last leg delivery of small products within Metro Manila	1-Apr-2020	1-Dec-2020		Deferred
61	RDR-PTD-2020-07 Effect of Shock and Vibration on the Quality and Shelf Life of Mangosteen Sourced from Davao (Phase 2)	1-Jul-2020	30-Nov-2020	31-Dec-2021	Deferred
62	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 Providers of Services	1-Dec-2017	30-Nov-2018	30-Nov-2020	Completed
63	RDA-PTD-2016-04 Upgrading and Enhancing the Capacity of the Packaging Technology Division in Packaging Research and Innovation	1-Dec-2016	30-Nov-2017	31-Jul-2021	Ongoing
64	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	30-Nov-2020	Completed
TECHNOL	OGICAL SERVICES DIVISION				
65	RDR-TSD-2020-01 Market Testing of FIC Technologies/Products through collaboration with existing adopters	1-Jan-2020	31-Dec-2020	31-Mar-2021	Ongoing
66	RDR-TSD-2020-02 Development of ITDI Tech-Transfer Mobile Application	1-Jan-2020	30-Jun-2021		Suspended
NATIONAL	METROLOGY DIVISION				
67	RDR-NMD-2020-01 Development of a low-cost quick-connect multi-channel system for pressure calibration	17-Feb-2020	31-Dec-2020		Deferred
68	RDR-NMD-2020-03 Development of an Automated Meniscus Positioning System for Volumetric Glassware Calibration	1-Mar-2020	28-Feb-2021		Deferred
69	RDR-NMD-2020-04 Development of a Hydrostatic Facility with Semi-Automatic Sample Handler for Solid Density Determination	1-Mar-2020	28-Feb-2021		Deferred
70	RDR-NMD-2020-05 Design and Development of a Low-Cost Vacuum Chamber for Barometric Pressure Measurement	17-Feb-2020	31-Dec-2020		Deferred
71	RDR-NMD-2020-02 Development of a Lux Meter Calibration System	17-Feb-2020	31-Dec-2020		Deferred
	Enhancement of the Competence and Capabilities of		letrology Labor	ratory of the Phil	ippines
	RDRD-2017-NMD-01	1-Jan-2017	31-Dec-2017		Completed
72	Project 1 : Chemical Metrology for Organic Contaminants in Food and Water	1-Jan-2018 1-Jan-2019 1-Jan-2020	31-Dec-2018 31-Dec-2019 31-Dec-2020		Completed Completed Ongoing
73	RDRD-2017-NMD-02 Project 2 : Chemical Metrology for Inorganic Toxic Elements	1-Jan-2017 1-Jan-2018	31-Dec-2017 31-Dec-2018		Completed  Completed
	in Food and Water	1-Jan-2019	31-Dec-2019		Completed Completed
		1-Jan-2020	31-Dec-2019		Ongoing
		1-Jan-2017	31-Dec-2017		Completed

Division/ No.	Project ID / Project Title	Duration			
		Start	Completion Date		Status
			Original	Revised	
74	RDRD-2017-NMD-03	1-Jan-2018	31-Dec-2018		Completed
	Project 3: Biological Metrology for Microorganisms in Food	1-Jan-2019	31-Dec-2019		Completed
		1-Jan-2019	31-Dec-2019		Completed
		1-Jan-2020	31-Dec-2020		Ongoing
		1-Jan-2017	31-Dec-2017		Completed
75	RDRD-2017-NMD-04	1-Jan-2018	31-Dec-2018		Completed
75	Project 4: Strengthening the Physical Metrology Capabilities of the National Metrology Laboratory (NML)	1-Jan-2019	31-Dec-2019		Completed
	of the National Metrology Laboratory (NML)	1-Jan-2019	31-Dec-2019		Completed
		1-Jan-2020	31-Dec-2020		Ongoing
STANDAR	DS AND TESTING DIVISION				
		1-Jan-2017	31-Dec-2017		Completed
76	RDA-2017-STD-02 Enhancing OneLab for Global Competitiveness	1-Jan-2018	31-Dec-2018	31-Dec-20	Completed
	Enhancing Official for Global Competitiveness	1-Jan-2019	31-Dec-2019		Completed
		1-Jan-2020	31-Dec-2020		Completed
	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	31-Dec-20	Completed
77		31-Jul-2019	31-Dec-2020		Ongoing
78	RDA-2019-STD-01 Upgrading of ITDI-Laboratory Animal Facilities in Support for Tuklas Lunas and Other DOST Programs, and Industry	4-Nov-2019	3-Nov-2020		Ongoing
	Needs	1-Oct-2020	30-Sep-2021		
79	RDA-2020-STD-01 Preliminary Characterization of Taal Volcanic Ash for Risk Assessment and Potential Raw Material for Construction Industry	15-Jun-2020	Sep 15, 2020	15-Oct-20	Completed